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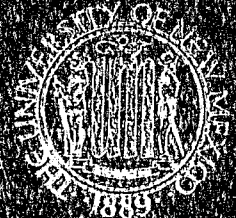
(Continued in 1984-85, Volume II)

THE UNIVERSITY OF NEW MEXICO
PRESIDENTIAL REPORT



JOHN PEROVICH

1984

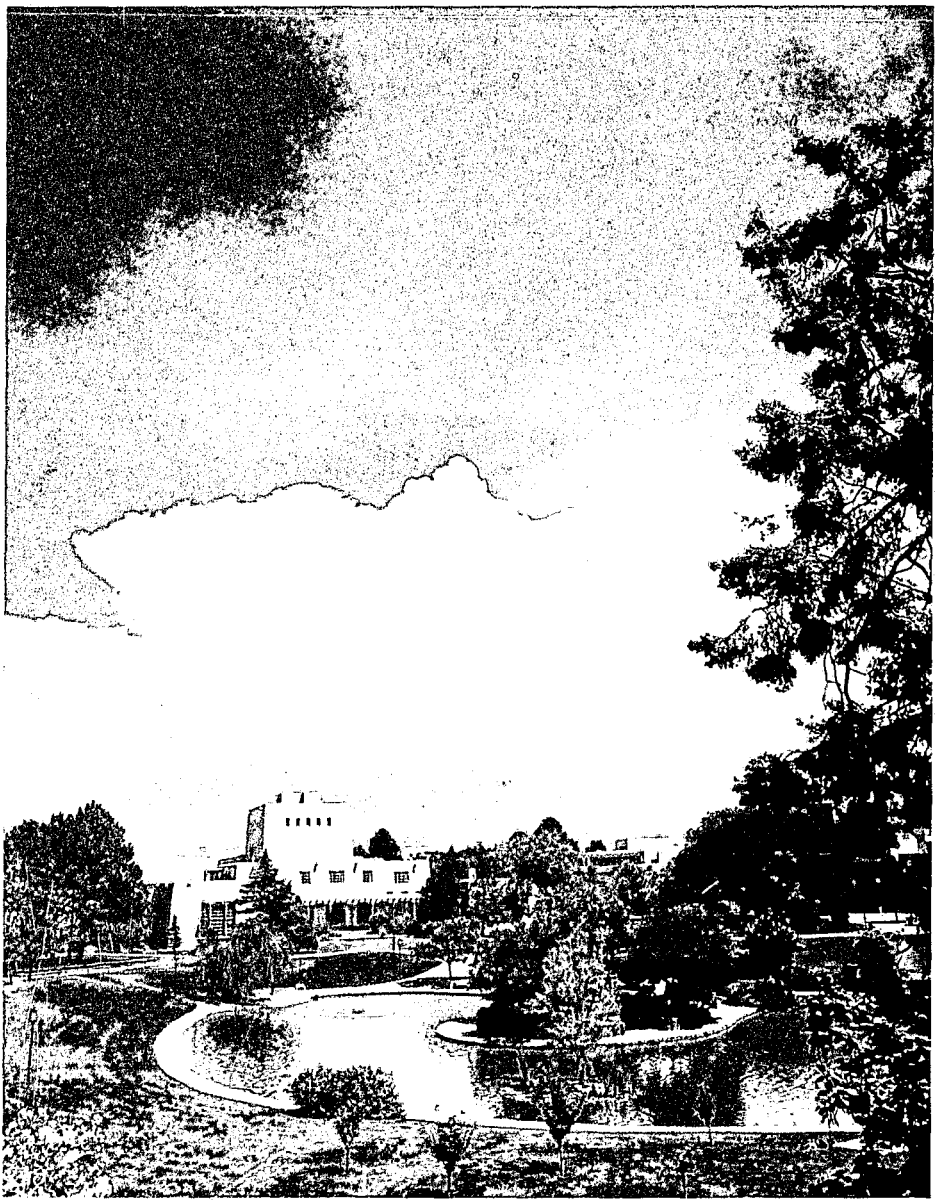
This report summarizes significant events and developments at the University of New Mexico during 1983-84 when I was the University's president. It outlines important progress we have made and suggests work still remaining. None of this progress would have been possible without the ideas, energy, cooperation, and support of the many people who make up UNM—students, faculty, administrators, staff, alumni, regents, legislators, and friends. They constitute a community of which I too have been a member for almost forty years. It is a community I have been proud to lead and to serve.

John Perovich
December 1984

As someone who has been involved with the University of New Mexico for nearly four decades—as a student, then later as an administrator, and finally as its president—I have seen the University grow and develop in many ways. When I came here as a freshman in 1942, the University was just on the verge of making the transition from a small, rather limited institution serving a relatively elite population to a major comprehensive institution serving the broad spectrum of the state's citizens. UNM then had no schools of law and medicine, there was no business college, the nursing program did not exist, and the enrollment was less than 3,000.

Now UNM has become one of the Southwest's major institutions of higher education. Its enrollment exceeds 24,000 students on its main campus, and its branch campuses and community service programs extend throughout New Mexico. The University also has become a major force in the economic development of the state, not only as a major economic entity itself but also as an important generator of information and innovations.

Throughout this growth and progress, the University has been guided in its development by the threefold mission with which it was charged by the state legislature when the University was created in 1889—instruction, scholarship and research, and public service—and it is with reference to this that I would like to present the important developments during my tenure as UNM's president.



INSTRUCTION

Students

In the 1984 fall semester the enrollment at the University of New Mexico for the first time exceeded 24,000 students, an important milestone. This growth was especially significant considering that the prospective student population is declining nationwide and that many colleges and universities are experiencing enrollment reductions. These figures suggest that UNM is succeeding in its efforts to offer academic programs that meet the personal and career needs of the broad spectrum of New Mexico's citizens.

Further evidence of this is the changing makeup of UNM's enrollment. The days are gone when the "average" UNM student was a recent high school graduate. Such students are still with us, but increasingly they are joined by growing numbers of "nontraditional" students, most of them older—the average student age at UNM now is twenty-seven—and many of them with families or full-time jobs. Indicative of the increasing role UNM is playing in meeting the educational needs of these students is the fact that UNM in the fall of 1984 offered more than 850 late afternoon and evening classes. Slightly more than half of UNM's students are now women, and New Mexico's ethnic minorities also are well-represented on campus.

While an increasing number of students from other states are coming here to attend UNM (2,495 in the fall of 1984), it is appropriate that approximately 90 percent of UNM's students still come from New Mexico.

Admission requirements, General College, and the Education Alliance

It is particularly gratifying that UNM's enrollments have continued to grow at a time when there has been a major and significant upgrading of UNM's admission requirements. Responding to a mandate to strive for academic excellence, UNM in the fall of 1983 began gradually increasing its requirements for admission to baccalaureate programs. Because New Mexico high schools supply 84 percent of UNM's freshmen, the new entrance requirements represent a consensus of cooperation between the University and these high schools. UNM now admits freshmen under three sets of criteria: 1) completion, with a C average or better, of specific high school preparatory courses; 2) a formula based on a combination of scores on the American College Test or the Scholastic Aptitude Test and high school class rank; and 3) a limited "special" admission category. The thrust of these new requirements is to produce a generation of students coming to UNM prepared to succeed.

At the same time, UNM created a new academic unit, General College, designed to make higher education possible for more students than ever before. General College administers UNM's University Skills courses, as well as some two-year associate degree programs. General College has an open admission policy, with no specific subject matter or grade point requirements. This allows students who are not admissible to bachelor's degree programs nonetheless to begin acquiring the academic skills needed for college-level work. Together, these innovations serve the dual purpose of encouraging academic excellence and at the same time continuing to make higher education accessible to the broad range of New Mexico citizens.

The goal of increasing educational opportunities for New Mexico citizens also has been furthered by formal creation in fall 1984 of the Greater Albuquerque Community Education Alliance, a cooperative arrangement between UNM, the Albuquerque Public Schools, and the Technical-Vocational Institute. This alliance is intended to eliminate duplication, determine needs, and meet them. For students, the Alliance means more courses related to the current employment market and not having to leave New Mexico for specialized programs.

Financial Aid

One of the most important means of reaching the dual goals of academic excellence and equal opportunity is financial aid. In this UNM has made major progress during the past two years.

Particularly significant is the progress made in the area of merit assistance, especially the Presidential Scholarship Program, designed to keep New Mexico's outstanding high school graduates in the state. Not only has UNM increased the amount of these scholarships from $800 to $1,500 beginning fall 1985, but the University also has increased the number of these scholarships. Two years ago we began working toward the goal of having at least 200 Presidential Scholars per class on campus, for a total of 800. In the fall of 1984 we offered 290 Presidential Scholarships and enrolled 220 new Presidential Scholars.

In addition, we have created other scholarships designed to bring talented high school graduates to UNM. One of these is the Excel Scholarship, awarded for four years or eight consecutive semesters to New Mexico high school students who are in the top 10 percent of their classes. This program has expanded rapidly during its short history, having gone from $500 a year to $700 a year. In the fall of 1985 the award will be $1,000 a year.

Similarly, we created in 1984 the UNM ACT Scholarship. This is for students who do not fall in the top 10 percent of their classes but who nonetheless have demonstrated academic ability by scoring at least 26 composite on the American College Test (ACT). This scholarship will be offered for the first time to incoming freshmen in the fall of 1985 and will cover full tuition.

Also, UNM has expanded its participation in the National Merit Scholarship Program, with twenty-seven National Merit Scholars on campus in the fall of 1984.

In addition to its merit assistance programs, UNM has broadened its other financial aid offerings. Most recently, UNM was a leader in the creation of a statewide work-study program to complement the federal work-study program. New Mexico now is one of only five states with an operational state work-study program, and each year more than 300 students participate at UNM.

Faculty

Essential to the instructional mission of the University of New Mexico are its faculty members. The dedication and intelligence they bring to their many roles determine, in large part, the overall excellence of the University.

Recent years have been difficult for the faculty at UNM. Financial constraints imposed by the state legislature have meant that appropriate remuneration for faculty has been restricted.

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Indeed, UNM faculty and staff members received no salary increases during 1983-84. Although 1984-85 has been better, with an 8 percent increase awarded by the legislature, faculty salaries remain below the national average for comparable institutions. A study prepared by the UNM Office of Institutional Research showed weighted-average faculty salaries at UNM to be the third lowest out of ten regional Ph.D.-granting universities considered to be its peers. This situation has made it difficult not only to attract the caliber of faculty needed for academic excellence but also to retain the outstanding scholars already on campus.

Despite this situation, the University is continuing to create methods of rewarding faculty excellence. One of these has been the establishment of a program under which grants, ranging from $7,500 for full professors to $2,500 for junior professors, will be awarded to faculty members who have demonstrated distinction in teaching, scholarship and research, and service. These awards will be made to faculty members from all UNM's academic units, and this year forty-four faculty members will receive the awards. This program will supplement faculty recognition programs already in place: the Annual Research Lecture, the Regents Medal for Meritorious Service, and the Outstanding Teacher Awards.

PUBLIC SERVICE

The public service mission of the University of New Mexico consists of applying UNM's capabilities to the resolution of social problems, primarily through extension of the University's teaching and research activities. As New Mexico and its needs have grown, so has the importance of UNM's service mission, and increasingly the University is reaching beyond its Albuquerque campus to deliver educational services to New Mexicans in the communities where they live and work.

Branch campuses

UNM's branch campuses—in Gallup, Los Alamos, and Valencia County—have undergone dramatic changes in recent years. Their enrollments have increased 100 percent during the 1981-84 period, demonstrating their ability to respond to local higher education demands. Each of the branches has developed not only specialized courses but also specialized degrees as requested by community or business interests in their service areas.

Further evidence of the close relationship between the branches and the communities they service is the fact that all the communities have passed bond issues for the expansion of campus facilities: $1.2 million at Los Alamos, $2.5 million at Valencia County, and $4 million at Gallup. The Los Alamos campus is nearing completion and was dedicated in spring 1984. The Gallup campus addition is still under construction. And the Valencia County site at Tome will enter Phase I of its construction this winter.

All the branch campuses not only provide postsecondary education, but they also service their communities in other ways including noncredit community education courses and the sponsorship of conferences and workshops. The Gallup campus has received special designation as an area vocational school at the request of high schools in McKinley County.

Telecommunications

A major trend in higher education as institutions approach the twenty-first century is the move to take education to students where they live and work, and increasingly this is being accomplished through electronic technology. In late 1984 UNM established an Instructional Television Fixed Service network to serve clients at the work site with courses from the UNM campus. This system will be expanded to Los Alamos in 1985 and other areas of the state as needs arise and funds become available.

In addition, UNM's Office of the Associate Provost for Community Education is acting as the coordinating and administrative unit for the New Mexico Educational Development Consortium, a statewide body that includes two- and four-year institutions. This group is helping to guide the development of distance learning in New Mexico.

Health services

The UNM Medical Center has continued to expand its contribution to health care throughout New Mexico, most visibly and dramatically through UNM Hospital, which has recently dedicated a new 74,000-square-foot, three-story critical care addition. This houses a variety of services, including an emergency department, Level I trauma center, burn center, pediatric services, and new medical and surgical care units. Building construction was financed through a bond issue approved by the Bernalillo County voters in 1981, and just prior to the dedication Bernalillo County voters pledged eight-year mill levy support to both UNM Hospital and UNM Mental Health Center. The voters' overwhelming approval of these issues demonstrated the growing recognition UNM is receiving for high quality and responsive health care.

The UNM Medical Center also has looked to the future in developing state-of-the-art technology in both research and patient care. During the past two years UNM has developed the Center for Non-invasive Diagnosis as one of the Centers of Excellence in the Rio Grande Research Corridor and in collaboration with the Los Alamos National Laboratory. When this facility is completed in the summer of 1985, scientists and physicians from both institutions will focus on developing magnetic resonance as a safe, effective diagnostic tool.

Alumni

Outreach by the University to its alumni has expanded in several ways during the past two years. The UNM Alumni Association now has 55,000 members, 30,000 located in New Mexico and 20,000 in Albuquerque. Thirty-one alumni chapters have been formed—fifteen in New Mexico—and a national founders' day (Lobo Day) and an alumni council have been developed. Legislative and faculty chapters also have been established, and a statewide legislative network created. Similarly, a nationwide student recruitment program was launched through the alumni chapters, and a broad program of student relations undertaken. To bring alumni back onto campus, a family summer camp was created, with a continuing education component.

Private support

Probably the best indicator of how well UNM is fulfilling its service mission is the generous support the Univesity receives from private individuals, businesses, and foundations who see the University as important to the state's future. In this respect the past two years have been very gratifying. For example, assets of the UNM Foundation, Inc., in 1982-83 were up 61 percent from the previous year, with revenues up 44 percent. In 1983-84 assets increased 33.5 percent for a total of $2.3 million, with revenues up 20 percent.

Five new endowment funds were added in 1983-84, making a total of twenty-five. Moreover, the number of donors increased 33 percent in 1983-84 over the previous year. Some of this increase resulted from the new Annual Fund program, a cooperative arrangement between the Offices of Development and Alumni Relations. A new giving club, the Heritage Club, has been created to supplement already existing giving clubs such as the President's Club, Century Club, and the Tom L. Popejoy Society, and other new giving clubs are being planned.

Especially significant has been the continued creation of endowed chairs. Just five years ago no endowed chairs existed at any public institution in New Mexico; now UNM has four, with more anticipated in the near future. Just within the last two years two have been established: the Endowed Chair in Microelectronics, funded jointly by the city of Albuquerque, the state of New Mexico, and the Albuquerque Industrial Development Service; and the Endowed Chair in Civil Engineering established by the Associated General Contractors of America. A chair in cancer research and another rotating chair are soon to be announced. In addition, the Frederick H. Harvey Endowed Professorship in Pathology was established in UNM's School of Medicine. Endowed chairs and professorships such as these will become increasingly important as UNM continues its quest for academic excellence, and they represent an important public commitment to UNM's missions.

RESEARCH AND SCHOLARSHIP

Because research and scholarship generate knowledge, the research and scholarship role of the University of New Mexico is critical to UNM's fulfilling its other responsibilities of instruction and public service. Indeed, the three elements of our mission are inseparable. Thus, the recent thrust toward excellence at the University has placed increased demands upon UNM's research and scholarship function. The results have been encouraging.

Sponsored projects

Sponsored research at UNM has grown dramatically in recent years. In the decade since 1974, expenditures for basic research have increased from over $7 million to more than $26 million. Applied research grants also have increased during that time period. In 1983 more than $41 million from external sources was spent at the University of New Mexico in the pursuit of new knowledge. This growth is expected to continue into the next decade.

Numbers tell only part of the story, however. Last year UNM became part of the Rio Grande Research Corridor and home to two of the Centers for Technical Excellence created by the state legislature, the Center for High Technology Materials and the Center for Non-invasive Diagnosis. These Centers will have a great impact on clean high-technology industries already in New Mexico and will have great potential to attract new industries to the state. Thus, UNM, through developments such as these, is assuming an increasingly important role in the economic development of New Mexico.

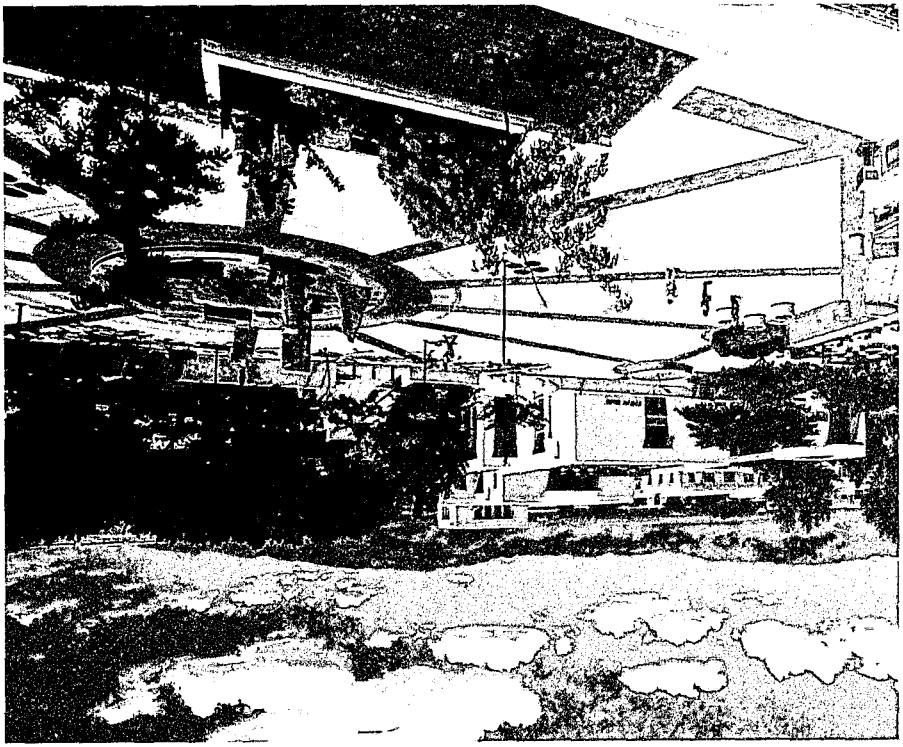
There have been other significant sponsored programs at UNM in the past two years. In science and technology, these programs have included renewal of the N.M. Engineering Research Institute ($8.5 million); new geological equipment ($300,000); investigation of stony meteorites ($225,000); creation of the NTE Technical Service Coordinating Center ($200,000); chemical instrumentation ($103,000); protein research ($236,000); chromatin structure research ($221,000); and ion beam research ($268,000).

Significant research in the humanities and social sciences also has continued during the past two years. For example, the editing of the papers of the Spanish explorer Diego de Vargas is proceeding with matching grants of $100,000 each from the National Endowment for the Humanities and the UNM Foundation, Inc. Other projects in these areas have included support for KNME and KUNM through grants for public service and satellite linkup (more than $1 million); a study of Hispanic children and their parents ($327,000); support for UNM's Latin American Institute ($721,000); and seven projects connected with the UNM Art Museum ($75,000).

Three other developments deserve mention. First, UNM is continuing to study the possibilities for developing a research park. Second, there has been enhancement of UNM's research patent and copyright policy. And finally, the Office of the Associate Provost for Research and the Department of Public Affairs have created *Quantum*, a journal of research and scholarship at UNM, to disseminate information about the University's efforts in these areas to UNM's many publics.

Libraries

The last two years have seen continued growth in the collections of the UNM General Library. In the 1983-84 budget an additional $330,000 was specified for library materials, and in 1984-85 an additional $350,000. One particularly important result of these allocations was the acquisition of U.S. patent backfiles, which made it possible for UNM to become a patent depository. Another significant gain was the addition of new journal titles, acquisition of which had been limited for several years. These funds also permitted the purchase of some specific materials contributing substantially to the research aspect of the library, particularly in the area of Southwest studies. Two examples are the eleven-volume manuscript collection of Father Chavez on New Mexico genealogy and the microfilm collection of the John Collier papers.



The UNM General Library also made progress in keeping up-to-date on technological innovations. A computerized circulation system was purchased and installed. This system not only is faster and more accurate, but it also allows off-campus users to search the data base of UNM's collection. At the same time, the Library's Technical Services Division and the Automated Processing Unit have been building a new inventory control data base for books and periodicals. Conversion to the automated data base is proceeding rapidly, with more than 23,000 books and several hundred periodicals processed since March 1984.

Other Library functions also have expanded. The Skills Center has increased its tutorial services to serve additional courses; more than 12,000 student contacts were made during 1983-84; and instruction in the use of the libraries increased 48 percent.

This expansion has placed added pressure on limited available space, but this will be partially alleviated with completion of a science-engineering library, now under construction, and the new Parish Library to serve the Anderson Schools of Management, as well as public administration and economics programs.

Facilities

There also have been several major projects undertaken on UNM's Albuquerque campus during the past two years, in addition to new construction at each of UNM's branch Campuses. The University has begun construction of a new track-and-field facility and an addition to Johnson Gymnasium. Planning was begun on an 800-car parking facility, a new Schools of Management/Social Sciences building, a new Science and Engineering Center, a magnetic resonance unit connected with the Cancer Center, and expansion and improvement of the football stadium. Perhaps most significant, the new Student Services Center was completed, bringing closely related student services together under the same roof for the first time.

Many improvements also have been made to the campus environment. New landscaping was installed on the south side of La Posada, around the Cancer Center, and in front of Hodgin Hall. A joint venture with the city resulted in a landscaped bus stop, with sculpture, on the corner of Girard and Central, and a contract was negotiated to landscape medians on Central.

Negotiations for the return of Yale Park to the University are proceeding, and a design plan has been developed. In 1984 UNM purchased the Masonic Building on University Avenue for a conference center and Continuing Education facility. This clearly signals the University's commitment to the concept of lifelong learning. Long-range planning is being done on land UNM owns at Eubank and I-40 and the research park on the south campus. If these plans are carried through, they will provide incalculable future benefits.

Much remains to be done. Among the projects for which UNM is seeking funds are: a Communications Technology Center; Phase II of Johnson Gymnasium expansion; football stadium expansion; a north campus multi-purpose building; and the Materials Technology Center. Other important needs include a second parking structure; a Printing Plant/Post Office/UNM Press building, and a South Campus technology building.

UNIVERSITY OF NEW MEXICO

MEN'S ATHLETICS

YEAR-END REPORT

1984-85

JOHN KEITH

SPORTS INFORMATION DIRECTOR

Once again, New Mexico finished a successful year in men's athletics. Only the football team finished out of the first division in 1984-85 Western Athletic Conference standings and Coach Joe Lee Dunn's gridders might have fared better had injuries not decimated the squad. They rocketed to a 4-0 start and stood 4-1 when quarterback Buddy Funck, the team's lifeline, broke a bone in his lower leg in the Lobos' loss to Colorado State. Injuries began popping like flash bulbs and before long, UNM was patching together a different lineup each week, a situation that has always proved fatal. So the football team finished 4-8 instead of having the chance for a winning record it otherwise might have achieved. For the second year in row New Mexico finished second in the WAC behind Brigham Young for the mythical all-sports championship. The Lobos finished second in both golf and tennis, third in indoor and outdoor track, swimming and wrestling swimming and wrestling and Coach Gary Colson's basketball team tied for third place with BYU and Colorado State. Probably the biggest jump in men's athletics was registered by Coach Vince Cappelli's baseball team which soared to the Southern Division championship in the WAC over Hawaii, San Diego State and Texas El Paso, and Cappelli was voted WAC Coach of the Year by the other conference mentors. Although the Lobos were eliminated early in the four-team WAC tourney at Provo, their final record was a flashy 42-17, a school mark for victories.

UNM's other fourth-place finish came in cross-country.

One of the key accomplishments for the athletic department during the 1984-85 season was the completion of UNM's brand new, eight-lane, all-weather

track in time for the Lobos to host both the men's and women's conference championships in May. Athletic Director John Bridgers personally raised approximately $500,000 for the facility that was matched by the university, giving UNM one of the nation's best facilities and putting the Lobos in line to host an NCAA men's and women's outdoor championship in the near future.

Another bright moment came when Georgetown, at that time ranked No. 1 in the nation in basketball, was challenged hard by Colson's cagers who eventually lost 69-61 here. The Hoyas led by 20 in the first half, but UNM sliced the lead to only three points with four minutes left in the game and the crowd noise (more than 18,000 yelled throughout) registered probably the highest in UNM history on the Richter Scale.

UNM's gymnastics team, coached by Rusty Mitchell performed at peak levels. The Lobos sent five competitors, including all-American Matt Arnot, to the NCAA meet in Lincoln, Neb.. Arnot who placed third on horizontal bars and seventh on parallel bars, was named the 1985 Nissen outstanding gymnast and made all-American for the third time in a row. Mitchell was named to the First Interstate Bank Athletic Foundation Gymnastics Hall of Fame.

Coach Craig Robertson's soccer team performed well in its first year of competition, marking up a 12-4-1 record.

LOBO FOOTBALL

Lack of depth becomes painfully evident when a football team gets socked with injuries and can't locate enough replacements to keep pace with the opposition.

New Mexico got hit in the face with that problem last fall. Coach Joe Lee Dunn's Lobos jumped to a 4-0 record, including a 29-24 upset over Texas Tech, and it looked like the Lobos might be set to enjoy one of their better seasons yet. But when linebacker Johnny Jackson sprained his ankle in the fifth game at Utah and then quarterback Buddy Funck, the main artery in UNM's offensive flow, broke a bone in his lower leg in the next game against Colorado State and missed the next four contests, the dam broke. Injury after injury to one key player and then another crushed any chance New Mexico might have had at success. The season went down the tubes before the Lobos could yell "help". The 4-8 record overall and 1-7 Western Athletic Conference mark only underlined the severity of the situation.

The Lobos, with everybody healthy, opened with an impressive 61-21 victory over New Mexico State in Albuquerque and Funck led the way rushing 130 yards in 14 carries and completing 6 of 12 passes for 112 more and two touchdowns, one a 44-yarder to Kenneth Whitehead. Willie Turral added 163 yards rushing on 23 carries, including two touchdown runs.

The Lobos countered with a 27-0 victory over West Texas State at University Stadium and Funck was the hero again, passing for two touchdowns and rushing 72 yards in 15 carries. Linebacker Johnny Jackson and tackle Tom Bradford led the defense with 9 tackles each.

When UNM upset Texas Tech 29-21 in the third game, Funck was chosen the WAC Offensive Player of the Week after rushing 3 yards for the game preserving touchdown and totaling 116 on 27 carries and passing 148 more on 7 completions. Jackson led the defensive assault again with 11 tackles, 7 of them unassisted.

The Lobos opened league play with an impressive 34-7 victory at Texas

El Paso. Turral plunged 7 yards for the first TD and Funck quickly hit Whitehead with a 77-yard TD pass to help the Lobos to a 14-0 lead early in the first quarter. Funck dashed 22 yards to score UNM's third touchdown and Whitehead snared a 26-yard TD pass from halfback Montez Love to help New Mexico to a 27-7 lead to put the game out of reach.

That wrapped up all the excitement the Lobos were to enjoy for the season because Utah ran wild in a 38-14 victory at Salt Lake City the following week when Jackson went down early in the game with his bad ankle. Colorado State followed with a surprising 16-10 upset over UNM in Albuquerque the next week when Funck broke a bone in his lower leg.

Dunn and his staff were forced to throw together a different lineup each week because of injuries to some more key players, including safety Ray Hornfeck, and it wasn't until four weeks later against Air Force that the Lobos threatened to win a game. Air Force nipped New Mexico, 23-9, but UNM put up a good struggle behind the defensive heroics of Hornfeck who made 12 crucial tackles and was voted WAC Defensive Player of the Week even though his team was beaten. UNM's defense played so well that the Falcons had to rely on three field goals to get the job done.

Funck finally returned to the starting lineup the next week at San Diego State, hobbled to two touchdown runs and completed 11 of 25 passes for 182 yards, playing at half speed. New Mexico lost the game, 37-31, but the Lobos showed life and had the chance to win.

Jackson and Turral were chosen on the post-season all-Western Athletic Conference team, while Hornfeck made the second unit. Turral rushed 1064 yards on 190 carries and scored 10 touchdowns. His 5.6-yard average per run was one of the best marks in the conference.

Jackson finished with 87 tackles, 8 of them quarterback sacks for minus 64 yards. He made 4 more stops behind the line for 20 more yards in losses.

Leading tackler for New Mexico for the year was linebacker Brent Henson with 105.

LOBO BASKETBALL

The 1984-85 New Mexico Lobos returned to post season play for the second consecutive year advancing to the second round of the National Invitational Tournament bowing to Fresno State, 66-55. The Lobos notched a 19-13 record, and have 43 wins the past two seasons, a feat accomplished just three times in the past.

The Lobos finished with a 9-7 Western Athletic Conference mark, tied for third place with BYU and Colorado State. However, UNM was the No. 3 seed for the WAC Tournament, based on a better record against the Cougars and Rams. UNM is one of two teams to advance to the semifinals of the Tournament since its inception two years ago. UNM defeated Colorado State in the second round of the tourney before losing to eventual winner, San Diego State, in the semifinals.

The Lobos opened the season with nine of its first 10 games at University Arena, including a narrow 69-61 loss to No. 1-ranked Georgetown. The Lobos had a 6-4 mark after 10 games, highlighted by an 87-72 win over New Mexico State in Las Cruces, UNM's first win in Aggieland in seven years. Many of the Lobo faithful who witnessed the contest against Georgetown said it was the loudest display ever in the Pit. UNM trailed by 20 points in the first half only to cut the Hoya lead to three points with four minutes remaining.

The WAC season began strong as UNM jumped to a 5-1 league mark, 12-5 overall. A 76-70 win at BYU, the first Lobo win in Provo since 1978, and a 94-85 pasting over San Diego State triggered UNM to its fast start.

An upset appeared in the making when UNM faced UTEP in El Paso Jan. 26 for an early conference showdown. But an errant Lobo pass with just seconds remaining gave the Miners a hard-fought, 71-69 win. After a pair of wins over Colorado State and Air Force, the Lobos' outside shooting fell on hard times. The result was five losses in six games and 42% accuracy from the field as the record fell to 15-11, 8-7 in the conference.

The Lobos traveled to Oregon State Feb. 26 for a rare mid-season,

non-conference game against the Beavers, ranked 19th in the nation one week earlier. The Lobos shot a school-record 70% from the field in downing the shocked Beavers, 72-65.

Entering the final game of the season at Wyoming, the WAC race was so close, UNM could finish anywhere from the No. 3 to No. 7 seed for the upcoming tournament. UNM stunned the hometown Cowboys in Laramie racing out to a 20-point lead in the first half and hanging on for an 83-78 win, a third place league finish, and a first round bye into the WAC Tournament.

After losing to the Aztecs in the semis, the Lobos received a phone call from the NIT. New Mexico hosted Texas A&M in the first round, winning 80-67, in the Pit. The Lobos closed another successful season at Fresno State.

UNM finished the season with an 812-713 overall record in 82 seasons of hoop. Head coach Gary Colson finished with a 423-274 record in 26 years of coaching and 82-68 in five years at UNM.

Individually, senior George Scott set both UNM and WAC records for season and career field goal percentage. Scott hit 62.2% of his shots in two years at UNM and 58.9% in 32 WAC games. George set a UNM record in 1982-83 making 65.5% of his attempts. Sophomore Kelvin Scarborough had 80 steals for the season, breaking Phil Smith's mark of 77 set the previous year. Kelvin also dished out 175 assists, the sixth best single season total at UNM.

Transfer Johnny Brown made his presence felt in a hurry scoring 26 in his first Lobo game at New Mexico State. Brown went on to net 508 total points for the season, the 11th best single season total, leading UNM with an 18.8 average. Brown missed the first five games of the season with a broken foot. Johnny shot 58.7% from the field which is the 4th best single season percentage at UNM. Brown earned a spot on the All-WAC second team while Scott and Scarborough were honorable mention. UNM lost just three players in Scott, guard Niles Dockery and center T.J. Drake. The Lobos also led the WAC in field goal percentage (51.1%) for the second straight year.

UNM attendance had its highest single season total ever. Nearly 325,000 (324,953) fans passed through the turnstiles at University Arena for a 16,248 per game average breaking the 1983-84 mark of 314,375. Total attendance at University Arena since it opened in 1966 now stands at 4,660,563 for an average of 15,132 in 308 games. Last year's average assured UNM of another Top 10 ranking in national attendance, a place it has held every year since the Pit opened. No other school in the nation can make this claim.

For the upcoming 1985-86 season, Gary Colson will greet four returning starters in Scarborough, Brown, Hunter Greene and Mike Winters. Also back are sophomores Paul Lawson, Shawn Brooks, Larry Markland and Paul Connery. Freshmen redshirts include Bob Arnold, Robert Loeffel and Randal Moos. Newcomers are freshmen Michael Moore and Brian Parker plus junior college transfer Kelly Graves.

LOBO BASEBALL

The New Mexico Lobos enjoyed their finest season on the diamond. Coach Vince Cappelli's team logged a 42-17 record, the most wins ever by a UNM team. The Lobos finished with a 14-8 WAC ledger and their first Southern Division title. Cappelli was named WAC Coach of the Year while junior shortstop Jim Fregosi earned Player of the Year laurels.

The Lobos leaped to a 17-2 record, including six of seven on a spring break trip through Southern California. UNM defeated Loyola Marymount and Cal State Long Beach twice and Southern Cal and defending national champion Cal State Fullerton once. Senior righthander Dean Duane, who was ALL-WAC and finished with a school-record 14-0 record, led the way with six of the first 17 wins.

New Mexico started the WAC season with a 28-7 record and ranked 25th in the nation. The Lobos did nothing to prove the pollsters wrong winning eight of 12 games on the road against UTEP, Hawaii and San Diego State. In Honolulu, UNM took three of four games from the Rainbows, a feat no other school has ever achieved. The Lobos were not kind hosts to the Rainbows in Albuquerque, either, sweeping four games. UNM jumped to a No. 19 ranking after the Hawaii series.

Cruising along with a 41-11 record and 13-4 in the conference, the Lobos might have peaked too early losing four of the last five games during the regular season. However, UNM was still headed for the WAC Playoffs for the first time in its history.

The Lobos traveled to BYU, host of the WAC Championships, in mid-May hoping for a strong showing and possible NCAA Tournament berth. Through seven innings of the first game against Utah, the Lobos seemed to be moving in the right direction with a 13-7 lead. However, the Utes crushed the Lobos hopes rallying for seven runs in the final two frames to take a 14-13 win, and sending UNM reeling into the loser's bracket against Hawaii.

UNM entered the Hawaii game confident, having beaten the Rainbows seven of eight times. Maybe the odds were against New Mexico. Hawaii exploded for a 12-5 lead and UNM seemed dead. But as was their nature all season, the Lobos staged a dramatic eighth-inning rally, only to fall one run short, losing 12-11. After being eliminated from the WAC Championships, eventually won by BYU, Cappelli and his troops sat eagerly by the phone waiting for the NCAA to call. The call never came. The Lobos ended the 1985 season on a sour note, but nonetheless set a standard for Lobo teams of the future.

Despite the sad and abrupt ending, the 1985 Lobo team set many records including a WAC record .355 team batting average. UNM team records included wins (42), road wins (17), runs (515), hits (674), home runs (70), total bases (1086), slugging percentage (.572) and tied the mark for RBI (445).

Individually, Fregosi earned All-America status while setting school records for runs (86) and home runs (15). Jim also led the nation in triples with 12 and batted .445 for the year. Duane set the UNM mark for wins (14), percentage (14-0, 1.000) and consecutive wins. Dean was the only pitcher in the nation, with at least 10 wins, to have an unblemished record. Senior co-captain Ed Bartholomew set a school and WAC record with 11 saves and holds the school mark with 13 career saves.

Fregosi, Duane, catcher Greg Hall and first baseman John Snyder all made the All-WAC first team as UNM placed more players on the team than any other WAC school.

UNM had six players drafted by major league teams. UNM had just six players drafted the past five years lending strong testimony to the strength of the 1985 team. Fregosi went to the St. Louis Cardinals in the second round, Duane to Kansas City, Hall to San Diego, lefthanded pitcher Bret Davis to Seattle, righthanded pitcher Rod Nichols to Cleveland and outfielder Jay Slotnick to Salt Lake City, an independent minor league team.

LOBO GYMNASTICS

For the fifth year in a row, the Lobo gymnastics team was rejected from attending the 1985 NCAA Championships, held in Lincoln, Nebraska. The top 10 teams are eligible to participate. On a positive note, five gymnasts from UNM were selected to compete on an individual basis.

Senior Matt Arnot and freshman Tom Novak were named All-Americans for their outstanding performances in the all-around and pommel horse, respectively. Arnot finished sixth in the all-around, while Novak tied for second on his specialty event with a score of 9.8.

Arnot concluded his collegiate career on a high note receiving the Nissen Award which goes to the Country's top senior gymnast.

As a team, the Lobos averaged an impressive 278.84--the highest team average ever for Coach Rusty Mitchell's team. The Lobos captured the Rocky Mountain Open, a first for Mitchell's squad and outperformed teams such as Houston Baptist, BYU and the University of Illinois.

For the 1985-86 season, the Lobos will miss the services of Matt Arnot, Mike Schmitt and Brett Anz.

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LOBO SWIMMING

The Lobo men's swim team finished out the year by placing third at the Western Athletic Conference Championship, held in Honolulu, Hawaii, while the lady Lobo's finished out the season with a 5-3 overall record and a 2-3 High Country Athletic Conference finish. Individually, three Lobos qualified for the 1985 NCAA Swimming Championships in Austin, Texas. They were swimmers Duncan Cruickshank and Gordy Westerberg and diver Kurt Bergeson.

A 1984 All-American, Duncan Cruickshank placed 15th in the 1650 freestyle while Bergeson failed to place on the 3-meter board. Westerberg, who competed in the 400 meters, equalled last year's time of 3:56.45.

The women swimmers will miss veteran swimmers, Kathy Dixon and Kathy Culpepper for the upcoming year, but the team is young and should find strength in a few of the other swimmers. A great plus for the wolfpack is Susanne Jones, a freshman, who qualified for the NCAA Zone D diving on both the 1- and 3-meter boards against Texas Tech.

Head coach Bill Spahn will be a happy man next year only losing two swimmers to graduation; Mike Volk and Bergeson. Returning for the Lobos will be seniors, Skip Daube, Hakan Jonsson and Gordy Westerberg; and juniors, Duncan Cruickshank, Curt Jenkins and Stefan Jonsson.

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LOBO GOLF

After a three year layoff from the NCAA Golf Championships, the Lobos made the trip to Grenelefe, Florida to compete in the 88th annual championships. The team finished 23rd while two UNM golfers, sohpomores J.B. Sneve and Mark Wurtz made the cut. Others competing for the Lobos were senior Jim Brazen, sophomore John Kienle and freshmen Jeff Jackson.

The Lobos, who competed with underclassmen most of the time, will have a strong team for the 1985-86 season. The lone player the Lobos lost was senior Jim Brazen.

With such a young team, the Lobos did better than expected. During the fall competition, the team took the Falcon Invitational in September while placing sixth in their own William H. Tucker Invite. During the spring, the Lobos placed second in the Cougar Classic in Provo, Utah, while losing in a sudden death playoff against UTEP for the WAC crown. The Western Athetic Conference championships were held in Cheyenne, Wyoming.

Other highlights included sophomores J.B. Sneve and John Kienle being voted to the first and second All-WAC teams, respectively.

LOBO TENNIS

After the Lobo's second-place finish in 1984 WAC Competition, UNM was ranked 19th in the nation and looked to be on its way to a productive 1985 season. But the UNM netters struggled throughout the '85 campaign----that is until the Lobos arrived at the WAC Championships in San Diego, California.

A Lobo team that was loaded with raw talent sputtered its way through the '85 season. UNM entered the WAC Championships with a 15-14 record, but the Lobos found the groove head coach David Geatz knew his team was capable of playing the entire season. UNM came alive in the post season tournament when it upset defending WAC champion Utah, 5-4, to advance to the finals where the Lobo's lost 5-1 to 1985 WAC champion BYU. The powerful BYU team devoured UNM in the team competition, but UNM returned the following day to play great tennis in the individual singles and doubles competition.

UNM's unseeded Jack Griffin advanced to the quarterfinals with a win over John Steimle of the Air Force Academy. UNM's Steve Otero, seeded eight in the tournament, defeated Tracy Fenelon of Hawaii to advance to the quarterfinals. Lobos Jack Bickham and Tim Cass also advanced to the quarterfinals when Bickham downed David Harkness of BYU, while Cass beat Christian Schulties of Utah.

Lobos Griffin and Otero then advanced to the semifinal round where they played each other. Otero won 6-3, 6-0, and advanced to the finals. In the final round Otero was defeated by Utah's Paul Lobban, 6-4, 6-4. Lobban later was voted WAC Player of the Year. UNM's Steve Bickham, Tim Cass, Jack Griffin and Steve Otero were selected to the All-WAC team.

In doubles competition Cass teamed with Lobo Galen Garcia to advance to the finals before falling to the talented doubles team of Paul Lobban and Christian Schultes from Utah. The twosome of Cass and Garcia lost only three matches the entire season.

The strong finish by the Lobos in the WAC tournament allowed Cass and Garcia to advance to advance to the NCAA Championships in the doubles competition, while Otero was the lone Lobo to make the NCAA's in singles play. At the NCAA Championships in Athens, Georgia, Otero fell to Stanford's Jim Gragg, 6-2, 6-3, in the opening round of competition.

In the doubles competition Cass and Garcia were defeated by the team of Lozano and Witsken from USC, 4-6, 6-3, 6-4, also in the opening round.

Another highlight in the '85 season for UNM is the addition of two highly-tou freshmen recruits, David Ramirez and Mike Velasquez. Ramirez comes to UNM from Coronado High in El Paso, Texas, where he was ranked No. 1 for players 16 and under, in the Southwest Section of the U.S. Ramirez was also the No. 1 player on the U.S. Junior Davis Cup Team. David lived up to all pre-season expectations in '85 when he posted a 11-3 season record while advancing to the quarterfinals at the WAC Championships before he fell to No. 1 seed, Rob Fought from BYU.

1985 can be looked upon as a building year for Lobo tennis. UNM Coach David Geatz has done a great job of recruiting top national high school talent as he continues to establish a quality tennis program at UNM. The future is definitely bright for Lobo tennis.

LOBO TRACK

UNM distance runners began a vigorous training schedule prior to the 1984-85 cross country season. Coach Del Hessel implemented a tough, yet well-planned training schedule for his cross country runners. Hessel's plan was designed to have UNM runners in peak condition for the '85 indoor-outdoor seasons.

UNM's cross country season was highlighted by an impressive Lobo victory at the Arizona Invitational. The Lobos took the top spot over a quality 10-team field which included the fifth-ranked team in the nation, University of Arizona. Lobo Greg Keith finished first in the 8,000-meter race with a 24:44 clocking. UNM had four runners among the top nine finishers.

UNMs' hopes for a trip to the NCAA Cross Country Championships were erased when the Lobos finished in a somewhat disappointing fourth place at the '84-'85 WAC Cross Country Championships, in Provo, Utah. Brigham Young captured the top team finish to become the WAC District 7 representative at the NCAA Championships in College Park, Penn. The top Lobo finisher at the WAC meet was junior Greg Keith, 19th place, followed by senior Richie Martinez, 23rd, and freshman Bill Mangan, 25th.

The Lobos entered the '85 indoor season with a group of talented, yet untested athletes. UNM's team featured 17 newcomers mixed with a handful of veteran runners whose strength lay in the middle distance events. Senior Phil Armijo, senior Richie Martinez, and freshman Bill Mangan paced the Lobo attack with consistent performances in the 800 and 1,500.

UNM hosted the '85 WAC Indoor Championships held at Tingley Coliseum. The Lobos finished third in the indoor championships for the second year in a row with a team score of 71 points. BYU won the meet when it came from behind in the second day of competition to tally 167.5 points and overcome second-place finisher, UTEP, with 145 points.

The 1985 outdoor season became a highlight in UNM track and field history before the season began. With the addition of the new "Great Friends of UNM Track and Field Stadium," the Lobos had their first-ever stadium built solely for track and field. The 5,400-seat stadium was completed in time for UNM to host the '85 outdoor WAC Championship meet.

In the future the new stadium will give UNM recognition in bidding for nationally ranked track and field events. The stadium will act as a great recruiting aid in Hessel's plan to restore quality to UNM's track and field program.

Once again, BYU and UTEP battled for the top spot at the 23rd annual outdoor WAC Track and Field Championships. UTEP hoped to seek revenge after BYU's come-from-behind victory at the indoor championships, but the Miners came up short when they tallied 131 points to finish second behind winner BYU, 188.5. UNM followed with a third-place finish and 101 points. UNM senior decathlete Gary Kinder edged San Diego State's Mark Sanders to win the Decathlon event with a total of 7,440 points. Kinder went on to represent UNM at the '85 NCAA Championships in Austin, Texas. In Austin, Kinder had a 175-point lead through nine events. In the final event, the 1,500 meters, George Mason's Rob Muzzio ran a career-best 4:23.64, while Kinder ran 4:52.00. It was enough to give Muzzio a 7,964-7,959 victory over Kinder in the closest decathlon competition in the history of the NCAA meet. If Muzzio had run a second slower or Kinder a second faster, Kinder would have won. Kinder's 7,959 points set a school record and broke his personal record by 250 points.

Other Lobos that fared well in the WAC Championship meet were Ted Crouch, who finished second in the hammer throw with a toss of 193-3; Fidel Ndyabagye, first place in the long jump, 26-1 3/4; Phil Armijo, first place in the 1,500 meters, 3:59.72; Willie Goldsmith, first place in the 110 meter high hurdles, 14.33; and Terence Gallagher, third place in the 1500 meters, 4:02.77.

With the addition of the new track stadium Coach Hessel figures to have a quality recruiting year in '85. The Lobos also have an abundance of talent returning in 1985-86. UNM figures to be in the thick of the WAC race as Hessel continues to restore credibility to UNM track and field.

LOBO WRESTLING

For Coach Bill Dotson and the Lobo grapplers the 1985 season began on a high note of optimism which turned to frustration as injuries riddled the Lobo squad.

Despite numerous injuries to key wrestlers, the Lobos managed to post a 5-5 dual meet record, finish third in the team standings at the WAC Championship and send four wrestlers to the NCAA tournament in Oklahoma City. Junior co-captai Bruce Garner, 118, sophomore Chris Luttrell, 134, junior co-captain Curtis Luttrell, 167, and junior Dave Vurik, 177, represented the Lobos at the 55th annual NCAA Championship Tournament.

As UNM grapplers prepared for the '85 season Coach Dotson figured to have returning starters in eight weight divisions, after the Lobos finished second in the 1984 WAC Championships. Chris Luttrell returned to the lineup after missing the entire '84 season due to injuries suffered in a automobile accident. In addition, Dotson added highly-touted freshman Bo Wade to the Lobo squad.

In the opening weeks of the season the Lobos displayed a blend of talent and depth as five UNM wrestlers placed in the Columbine Open in Denver. The Luttrell brothers combined for nine pins in their respective weight divisions at the Columbine. The Luttrell's pinning exhibition was capped when Curtis Luttrell pinned three-time WAC champion Ron Whitman from Wyoming. The following week injuries became a thorn in the side for UNM wrestlers. After the Lobo team participated in the St. Louis Open it lost Ralph Harrison, 150, due to a case of chicken pox. Barry LaBass, 142, and Dan Ilgenstein, 190, developed skin infections and Chris Luttrell sustained a shoulder in injury that sidelined him for two weeks. Despite injuries, UNM posted a 33-18 dual meet victory over New Mexico Highlands in the next outing.

The following week UNM hosted the University of Oklahoma, then ranked No. 3 in the nation. The Lobos wrestled hard but lost a tough dual match to the Sooners, 27-17.

The battered Lobo squad made a successful California trek during the Christmas break where it tallied victories over Cal Poly-San Luis Obispo, 23-15, and Cal-State Bakersfield, 30-19. UNM lost a match against a tough Fresno State team, 28-12, before returning to Albuquerque.

Injuries and fatigue were evident as UNM lost its following dual match to Coach Dotson's alma mater, University of Northern Iowa, 41-6. But once again, the Lobos rallied to capture dual meet victories over Adams State, 33-16, and Air Force Academy, 36-18, in successive outings.

UNM participated in the Mountain Intercollegiate Wrestling Tournament, held in Ogden, Utah. Led by Garner, Vurik and the Luttrell brothers, the Lobos finished third in the team standings at the MIWA tournament with a score of 90 points. Garner captured a second-place finish while Vurik and Chris Luttrell logged third-place finishes in their respective weight divisions. The Lobos lost the season finale to a strong Athletes in Action team, 38-15.

Coach Dotson's quality recruiting standards and a vigorous training schedule should produce a winning team once again in 1985-86. Under Dotson's leadership UNM has continued to climb the ladder of success in the collegiate wrestling ranks.

LOBO SOCCER

UNM finished out its third year as a varsity squad with an impressive 12-4-1 record. The Lobos had their toughest schedule yet competing at the Getty Oil Invitational and against traditional powerhouses North Texas State, Air Force, Quincy College and Mexico's Chihuahua Tech. It was UNM's first win ever over Chihuahua in series going back five years. The Lobos downed Tech 2-0 after putting away conference opponents Air Force (1-0) and Hardin Simmons (2-1). The only Rocky Mountain Intercollegiate League competitor the Lobos lost to was top twenty ranked North Texas State (2-0).

At the Getty Invitational, the Lobos earned a third place finish. The Lobos dropped their first match to Quincy College 2-0, but rebounded against Tulsa for a 2-1 victory over the tournament's previously undefeated champion. A combination of finesse styled soccer and talented athletes under head coach Craig Robertson experienced direction has brought UNM its third successful season totaling 32 wins, only 10 losses and 5 ties for a .680 winning percentage. UNM kicker's have tallied 132 goals and given up only 48 in three seasons outscoring their foes almost three to one.

The Rocky Mountain Soccer League named Stein Sorbye, Jon Toman and David Robertson to the RMISL All-League team for their abilities. Twenty-one of 22 soccer players will return next season which should make New Mexico a top contender.

	USAFA	BYU	CSU	HAWAII	UNM	SDSU	UTEP	UTAH	WYOMING
FOOTBALL	3	1	7	2	T8	T4	T8	T4	6
CROSS COUNTRY	7	1	3	-	4	6	8	2	5
INDOOR TRACK	4	1	5	-	3	-	2	T6	T6
SWIMMING	6	4	-	1	3	-	-	2	5
WRESTLING	4	2	5	-	3	-	-	-	1
BASKETBALL	9	T3	T3	8	T3	2	1	6	7
OUTDOOR TRACK	6	1	7	-	3	4	2	8	5
TENNIS	6	1	7	5	2	4	-	3	-
GOLF	5	3	9	8	2	4	1	7	6
BASEBALL	7	1	9	2	4	8	6	3	5
TOTAL	57	18	55	26	35	32	28	41	46
No. of Sports	10	10	9	6	10	7	7	9	9
Average	5.7	1.8	6.1	4.3	3.5	4.6	4.0	4.6	5.1

FINAL ORDER (Sports Participated & Average)			1983-84 Finish
1. Brigham Young	(10)	1.8	1
2. NEW MEXICO	(10)	3.5	2
3. Texas-El Paso	(7)	4.0	3
4. Hawaii	(6)	4.3	4
5. Utah	(9)	4.56	T7
6. San Diego State	(7)	4.57	5
7. Wyoming	(9)	5.1	6
8. Air Force	(10)	5.7	T7
9. Colorado State	(9)	6.1	9

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YEAR END REPORT

Women's Athletics

July 1, 1984 - June 30, 1985

Submitted By:

Dr. Pat Trainor
Women's Sports
Information Director

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The UNM Women Lobos had another exceptional year of competition. The most recent achievement occured at Cape Cod where the women's golf team placed sixth at the NCAA Championship, their highest national finish to date. Linkster Kristi Arrington was selected to the All-American, first team for her outstanding play during the year.

Back when the snow was falling, the ski team competed in Bozeman where the "Desert Rat Rats of New Mexico" placed sixth in NCAA competition. In this coed championship, six Lobos earned All-American honors for outstanding performances in alpine and nordic events.

In the warmer confines of the gymnastics arena, the Lobos had two individuals that represented New Mexico in the national championships. Both women competed well, finishing in the top one fourth for all-around honors.

The women's track & field team inaugurated the new UNM track facility in style by tying BYU for the HCAC Championship title. This is the first time UNM women tracksters have won the Conference Championship. Three individuals from the team qualified for nationals which were conducted in Austin, TX. Again this fall, Lobo harriers were ranked nationally; and they captured second in both the Conference and the District championships. Carole Roybal from Albuquerque competed in the NCAA Cross Country Championship where she finished 19th and earned All-American status.

The women's swim team was small in number but mighty in desire and talent. They had a superior season and ended the year by placing second at the Conference Championship. Three Lobos were named to the All-Conference team for their remarkable individual efforts.

The women's tennis team had some individual victories, and the team was more competitive within the Conference then in previous years. As a result Leanne Palmisano qualified as an individual to compete in the NCAA's, held in Oklahoma City. This is the first time that UNM has been represented in national tennis competition.

For a number of weeks during their seasons, volleyball and softball were nationally ranked. They, along with basketball fared well in Conference play. The team sports also realized a substantial gain in attendance at their home events. This certainly reflects the public's increasing interest and awareness of women's athletics within the world of sport. Kim Bradshaw from basketball and Jeannine Fenske from volleyball were recently selected to play on National Sports Festival teams. This is one of the highest national honors that can be achieved by young athletes, and will make both young women eligible to try out for their respective Olympic teams in 1988.

Coaches John Speary (golf) and Mike MacEachen (track) were selected by their peers as HCAC Coach-of-the-Year. In addition, volleyball Coach Laurel Kessel, a past Olympian, will serve as the assistant volleyball coach at the World University Games in August. Laurel's assistant coach, Sue Hegerle has been named to the U.S. National Volleyball Team, with hopes of participating in the 1988 Olympics.

This year 30 New Mexico athletes from the eight Conference sports were named to HCAC All-Conference Teams or received Honorable Mention. Four players (1, volleyball; 1, softball; 2 basketball) were also named HCAC "Player-of-the-Week" by HCAC and one athlete received the Conference "Spotlight" Award.

The most elusive honor that women's athletics has yet to grasp is the HCAC Conference Cup, which is awarded to an institution on a point basis according to team finishes throughout the year. For a third time the Lobos placed second next to BYU. This year UNM missed first plaace by just three points. By all indications, the Lobos are gaining ground, and look forward to next year's quest for the Conference Cup.

This past year was a ground breaking experience for the women into the world of television. KGSW in Albuquerque aired a 9 week TV series entitled "Lobo Women's Sports Magazine". The show was produced by Women's Athletics; directed and edited by UNM's Theartre Arts Television classes. The focus of the series was on each of the ten women's sports. The goal of the show was to increase the public's awareness of the female athlete and from viewers responses, this goal was reached.

In all, out of the ten women's sports, six teams were nationally ranked during thier competitive season; six teams were represented at their national championships; and, two teams finished sixth in the nation. Credit must be given to the coaches, and the fine student athletes that they have recruited to UNM campus.

SPORT	COACH ASST. COACH	YEARS AT UNM	SEASON RECORD	UNM RECORD	CAREER RECORD	CONFERENCE FINISH	NATIONAL FINISH
Basketball	Doug Hoselton Francis Walsh	5 3	15-12	67-72	67-72	6-6 (4th)	-
Golf	John Speary	1	No way to compute win-loss record			3rd	6th 1 All American
Gymnastics	Pete Longdon	3	24-5	46-31	46-31	Regional 2 qualified	2 qualified finished 25th & 26th
Skiing	George Brooks	15	No way to compute win-loss record			Regional 4th	6th 6 All-American
	Klaus Weber	10					
Softball	Susan Craig	8	32-23 (31-21, NCAA)	226-174-1	226-174-1	7-3 (3rd)	-
	Ken Johnson	6					
Swimming	Bill Spahn Jack Romine	4 2	No way to compute win-loss record			2nd	-
Tennis	Helen Horn	4	16-18	65-59	65-59	3rd	1 qualified
Track	Mike MacEachen	3	No way to compute win-loss record			1st(t)	3 qualified
Cross Country	Cindy Schamndt	2	No way to compute win-loss record			2nd	1 qualified Finished 19th All-American
Volleyball	Laurel Kessel	2	16-17	44-28	44-28	4-8 (5th)	-

ADMINISTRATIVE PERSONNEL -

Athletic Director - Linda Estes 15 years

Assistant Athletic Director - Dr. Judy Ray 5 years

Sports Information Director - Dr. Pat Trainor 3½ years

HIGH COUNTRY ATHLETIC CONFERENCE
Team Finishes 1984-85

	UNM	BYU	CSU	NMSU	NAU*	UTAH	UTAH ST.	WYO
BASKETBALL	15-12 6-6 4th	19-8 11-1 1st	13-15 4-8 5th	15-13 8-4 2nd(t)	-	16-12 8-4 2nd(t)	7-19 3-9 6th	6-22 2-10 7th
CROSS COUNTRY	2nd	1st	3rd	-	4th	5th	7th	6th
GOLF	3rd	1st	4th	2nd	-	-	-	-
GYMNASTICS**	3rd	2nd	-	-	-	1st	4th	-
SOFTBALL	31-21 7-3 3rd	-	7-30 2-8 5th(t)	15-23 2-8 5th(t)	16-36 3-7 4th	37-12 9-1 1st	30-17 7-3 2nd	-
SKIING**	3rd	-	-	-	-	1st	-	2nd
SWIMMING	2nd	1st	3rd	4th	6th	7th	-	5th
TENNIS	3rd	1st	6th	4th	5th	2nd	-	-
TRACK & FIELD	1st(t)	1st(1)	5th	-	3rd	7th	4th	6th
VOLLEYBALL	16-17 4-8 5th	29-13 9-3 2nd(t)	26-8 12-0 1st	16-18 3-9 6th	-	20-18 5-7 4th	12-27 0-12 7th	23-13 9-3 2nd(t)

* Associate member

** Regional finish

BASKETBALL

One never knows what the season will hold for a team until the very end. In the HCAC preseason poll, UNM was slated to finish second because of the return of five seniors on this years squad, but the team eventually had a see-saw season. They finished 15-12 overall, and 6-6 in Conference, which placed them in the middle of the pack at fourth.

The season opened with a big win over nationally ranked Arizona State, and extremely narrow losses to Drake (3 pts) and Colorado (2 pts). The future looked bright for the Lobos as they were playing with maturity and experience. But then Northern Arizona soundly defeated UNM on the road, and the roller coaster ride began. There seemed to be an element missing, with the team never quite reaching the potential that was assumed to be present among the players. "I felt we would either be great, if everything jelled or it would be a medicore year for us," said Coach Hoselton.

There were some highlights during the year. Yvonne McKinnon and Winifred Foster were named HCAC Player-of-the-Week for their outstanding play. At ASU's Converse Classic Alison Foote and Winifred Foster were named to the All-Tournament team. Probably the most outstanding event was the anticipation of when Alison Foote would break the All Time School Career Scoring record set by Willie Long. It was hoped that the record would be broken at home, but Allison couldn't be slowed down, setting the new record

while playing CSU in Ft. Collins. Alison eventually finished the season with a career scoring record of 1,314, the highest ever for a male or female at New Mexico.

Players named to the All-Conference second team were, Alison Foote and Winifred Foster. Receiving Honorable Mention were Yvonne McKinnon and Cathy Lowther. This year's MVP was senior Alison Foote. The Rebounding Award went to senior Yvonne McKinnon; the Defensive Award was captured by senior Cathy Lowther; and the coaches Award was presented to junior Winifred Foster.

Freshman guard Kim Bradshaw was selected to the National Sports Festival basketball team. She played for the West Team, with this year's Festival being held in Baton Rouge, LA.

The team losses seniors Yvonne McKinnon, Alison Foote, Cathy Lowther, Sally Anderson, Kathy Trujillo, and Erica Farmer.

UNM BASKETBALL
FINAL RESULTS - 1984-85

				UNM-OPP	Record	HCAC
Nov.	21	W	FORT LEWIS COLLEGE	76-48	1-0	
	23-24		at Converse Classic (ASU host) Alison Foote, Yvonne McKinnon, All-Tourney			
	23	W	Arizona State	79-75	2-0	
	24	L	Drake	65-68	2-1	
	28	L	at Colorado	69-71	2-2	
Dec.	1	L	at Northern Arizona	71-93	2-3	
	15	W	HARDIN SIMMONS	89-67	3-3	
Jan.	2-4		LOBO ROUND ROBIN			
	2	L	OREGON	49-79	3-4	
	4	W	NEBRASKA	85-79	4-4	
	8	W	at U. of Calif.-Riverside	71-66	5-4	
	10	L	at U.S.I.U. Yvonne McKinnon, player of the week Jan.7,1985	53-54	5-5	
	12	W	at Loyola Marymount	71-63	6-5	
	14	W	UNIVERSITY OF TEXAS EL PASO	69-63	7-5	
	17	L	at West Texas State	54-81	7-6	
	19	W	NORTHERN ARIZONA UNIVERSITY	68-60	8-6	
	26	L	at New Mexico State*	60-62	8-7	0-1
	31	W	UTAH STATE UNIVERSITY*	70-49	9-7	1-1
Feb.	2	W	Winifred Foster player of the week UTAH UNIVERSITY*	72-66	10-7	2-1
	7	W	at Wyoming*	68-65	11-7	3-1
	9	L	at Colorado State* (Alison Foote broke career scoring record-1,549)	56-70	11-8	3-2
	14	L	BRIGHAM YOUNG UNIVERSITY*	66-93	11-9	3-3
	21	W	at UTEP	64-54	12-9	
	23	L	NEW MEXICO STATE*	56-65	12-10	3-4
	27	L	at University of Utah*	65-66	12-11	3-5
Mar.	1	L	at Brigham Young University*	67-94	12-12	3-6
	2	W	at Utah State*	79-77(OT)	13-12	4-6
	7	W	COLORADO STATE*	71-65	14-12	5-6
	9	W	WYOMING*	90-79	15-12	6-6

*denotes HCAC games All home games indicated by all CAPS.

revised 11/19/84

LOBO WOMEN'S BASKETBALL
1984-85 ROSTER

NO.	NAME	HEIGHT	CLASS	POSITION	HOMETOWN	HIGH SCHOOL/COACH
50	Yvonne McKinnon	6'1"	Senior	Forward	Aurora, CO	Aurora Central/Stan Rabbe
42	Alison Foote	5'11"	Senior	Forward	Farmington, NM	Farmington High/Norma Flynn
10	Cathy Lowther	5'2"	Senior	Guard	Albuquerque, NM	Eldorado High/Don Flanagan
40	Sally Anderson	5'11"	Senior	Forward	Pittsburgh, PA	Thomas Jefferson/Rich Rosensteel
21	Kathy Trujillo	5'4"	Senior	Guard	Albuquerque, NM	West Mesa/Sheryl Clemmer
30	Erica Farmer	5'10"	Senior	Forward	Albuquerque, NM	Valley High/Charles Gibbs
12	Winifred Foster	5'10"	Junior	Forward	Aurora, CO	Aurora High/Stan Rabbe
25	Susie Sparks	5'2"	Junior	Guard	Columbus, GA	Brookstone/ Wendel McKenzie
15	Brenda Perry	5'8"	Sophomore	Guard	Albuquerque, NM	Highland High/John Pye
44	Tracy Satran	6'1"	Sophomore	Forward	Phoenix, AZ	Camelback/Nadine Sass
35	Suzanne Rum	6'0"	Sophomore	Forward	Poway, CA	Poway High/Dave Boulware
22	Kim Bradshaw	6'0"	Freshman	Forward	Reno, NV	Reno High/Ken Fujii
11	Janice Branch	5'8"	Freshman	Guard	Albuquerque, NM	Eldorado High/Don Flanagan
32	Kandi Syryczuk	6'1/2"	Freshman	Forward	Thorp, WI	Thorp High/Bill Harycki

Head Coach: Doug Moselton
Assistant Coach: Frances "Frankie" Walsh
Melissa Miller

GOLF

The Lobo women's golf team continued to be the most consistent team in women's athletics as they were again nationally ranked in the Top 10 throughout the year. Under the direction of first year Coach John Speary, the team performed well against top ranked teams from all over the country.

The Lady Lobos made Coach Speary's life easy in the fall by winning their first two tournaments, and losing their home event, the McGuire, by only one stroke. The spring found the linksters still playing well with a second place finish at the Arizona Invite; a fourth place in the Patty Sheehan Invite at San Jose; and a fifth place showing at the Lady Sun Devil. One of the "hardest fought" tournaments, however, was for the HCAC Conference title, which the Lobos were famous for winning. In the end UNM, BYU, and NMSU played some of the scrapiest golf anyone would ever want to see, with BYU taking first, NMSU second, and UNM third. "We played excellent golf", said Coach Speary. "It's just that BYU and State played out of their heads - its good to see tough competition like this in the Conference". Three Lobos, Kristi Arrington, Theresa Schreck, and Caroline Keggi were selected for the All-Conference team, with Keggi taking medalist honors after a three-way sudden death play-off.

Shortly after the HCAC Championship, the last national ranking came out, with the Lobos ranked eighth which meant they would once again be competing for the national title.

The Championship was held at Cape Cod, MA. and when all was said and done UNM came home with a sixth place finish, their best national showing to date. The highlight at the NCAA's was Lobo Kristi Arrington being named first team All-American for her outstanding play throughout the year.

This year's MVP Award went to Kristi Arrington while Carolyn Barnet was the Most Improved Golfer, and Sharon Hadley received the Coach's Award.

The team will lose seniors Kristi Arrington, Theresa Schreck, Carolyn Barnett, and Sharon Hadley.

1984-85 GOLF SCHEDULE

Fall Season

Date	Tournament/Location	Finish	
		Team	Individual
Sept. 6-8	Roadrunner Invitational (NMSU) Las Cruces, NM	1st/7	Kristi Arrington, 1st Theresa Schreck, 2nd
Sept. 17-19	BYU Invitational Provo, UT	1st/11	Kristi Arrington, 3rd Theresa Schreck, 7th
Oct. 4-6	McGuire Invitational (UNM) Albuquerque, NM	2nd/16	Kristi Arrington, 1st Theresa Schreck, 3rd
Oct. 17-19	Nancy Lopez Invitational (Tulsa) Tulsa, OK	7th/14	
Nov. 2-4	Stanford Invitational Palo Alto, CA	11th/21	Theresa Schreck, 3rd Kristi Arrington, 8th
Nov. 12-14	U.S.I.U. Invitational San Diego, CA	6th/15	Theresa Schreck, 2nd
Nov. 30-Dec.2	Bluebonnett Bowl West Columbia, TX (individual - best ball)	4th/12	Kristi Arrington, 5th (t) Carolyn Barnett, 5th (t)

Spring Season

Feb. 11-13	Arizona Invitational Tucson, AZ	2nd/15	Kristi Arrington, 2nd(t) Theresa Schreck, 5th(t) Caroline Keggi, 5th(t)
Mar. 1-3	Patty Sheehan Invitational (San Jose St.) Monterey, CA	4/11	Caroline Keggi, 7th(t)
Mar. 8-10	Betsy Rawls Invitational (U. of TX) Austin, TX	9/18	Kristi Arrington, 11th
Mar. 26-29	Lady Mustang Roundup (SMU) Dallas, TX	12/12	----------
Ap. 15-17	Lady Sun Devil (ASU) Phoenix, AZ	5/18	Kristi Arrington, 3rd Caroline Keggi, 5th
May 1-3	HCAC Championship Las Cruces, NM	3/4	Caroline Keggi, 1st (t) Kristi Arrington, 6th
May 22-25	NCAA Championship Cape Cod, MA	6/18 (t)	Caroline Keggi, 24th Theresa Schreck, 30th

GOLF RESULTS

			Finish
May 22-25	NCAA Championship Cape Cod, MA	6/18(t)	Sharon Hadley, 44th Kristi Arrington, 47th Carolyn Barnett, 81st

1984-85 GOLF ROSTER

Kristi Arrington	Senior	El Paso, Texas
Carolyn Barnett	Senior	Appleton, Wisconsin
Sharon Hadley	Senior	Eugene, Oregon
Theresa Schreck	Senior	Spokane, Washington
Tara Fleming	Freshman	Houston, Texas
Tari Gadbaw	Freshman	Appleton, Wisconsin
Caroline Keggi	Sophomore	Middlebury, Conn.

GYMNASTICS

As the season began the women's gymnastics team looked very good, as there was depth and a high level of skill among the athletes. The question being raised by Coach Longdon, however, was what would be the reaction of the freshmen to the team competitive situation as opposed to strictly individual achievement? It was a pleasant surprise when the "newcomers" responded well and became an integral part of the team. At seasons end the Lobos finished with a 24-5 record.

It was a tough schedule for the Lobos in that they were home only once during the year. Considering this, it's remarkable that the team set new school records in all five events, along with a new team-score record of 185.55 against LSU. During this same meet, Antoinette Gonzales also set a new all-around school record of 38.4.

The highlight of the year for the team, came early during the season when they journeyed to Hawaii for the Aloha Gymfest. Coach Longdon felt that the Lobos could finish anywhere from 3rd to 9th. Imagine everyones surprise when the team captured first place, defeating four Top 20 teams. Two individuals also finished second and third in the all-around.

The Lobos missed qualifying for the NCAA Regionals as a team by only 1.25 points, but Tracy Kwiatkowski and Antoinette Gonzales did qualify as individuals. Their

performances were very good, with both young ladies going on to the NCAA Championships in Utah. Gonzales finished 25th and Kwiatkowski 26th out of 95 individuals.

The MVP for gymnastics was shared by Tracy Kwiatkowski and Antoinette Gonzales. Both of these young ladies also received the Coach's Award. The team will lose seniors Tracy Kwiatkowski and Chris Riser.

THE UNIVERSITY OF NEW MEXICO
ALBUQUERQUE, NEW MEXICO 87131

FINAL GYMNASTICS RESULTS
1984-85

Dec. 8-9, Rocky Mountain Open - U.S.A.A.
Colorado Springs, CO

1.	UNM	175.7	
	Iowa	168.7	
	Air Force	167.95	
	Montana St.	166.2	
	NAU	164.6	
	Seatte Pacific U.	163.6	
	Ft. Hays St. U.	162.35	
	Adams St.	141.85	
	Odessa College	110.7	
	U. of Denver	Indiv.	
11.	Chadron St.	Indiv.	10-0

Dec. 28-29, Aloha Gymfest - Hawaii

1.	UNM	177.30	
	Oregon St.	176.70	
	Louisiana St.	176.0	
	Oklahoma	175.50	
	UCLA	174.10	
	Maryland	172.05	
	BYU	168.85	
	Montana	165.10	
9.	Cal-Santa Barbara	159.25	18-0

Jan. 19, 1985 - Air Force

1.	UNM	175.70	
2.	Air Force	168.65	19-0

Feb. 8, 1985 - U. of Illinois at Chicago

1.	UNM	173.75	20-0
2.	U. of Ill.	168.75	

Feb. 9, 1985 - U. of Illinois-Champagne

1.	UNM	179.45	
2.	U. of Ill.-Champagne	175.15	21-0

Feb. 22, Oregon St. - Shannico Invite

1.	Oregon St.	185.85	
	Washington	181.40	
	Stanford	179.0	
	UNM	178.25	
	San Diego St.	174.0	
6.	Utah St.	174.0	23-

March 2, 1985 Home meet vs LSU

1.	UNM	185.55*	School Record
2.	LSU	182.25	24-

*Antionette Gonzales AA 38.4 School Re

March 8, 1985

1.	Oklahoma State	180.15	24-4
2.	UNM	177.45	

March 9, 1985

1.	Oklahoma	185.3	24-5
2.	UNM	180.5	

FINAL SEASON RECORD 24-5

NCAA Regionals

	Ran
Tracy Kwiatkowski	1
Antionette Gonzales	

NCAA Championships

	fini
Antionette Gonzales	25t
Tracy Kwiatkowski	26t

WOMEN'S SPORTS INFORMATION OFFICE CARLISLE GYM TELEPHONE 505: 277-5063

1984-85 GYMNASTICS ROSTER

NAME	HT.	WT.	CL.	EVENT	HOMETOWN
Tracy Kwiatkowski	5'3"	108	Sr.	AA	Annapolis, MD
Chris Riser	5'2"	100	St.	AA	Silver Spring, MD
Antoinette Gonzales	5'3"	105	Jr.	AA	Houston, TX
Deneen Black	5'2"	100	So.	AA	Houston, TX
Cyndi Black	5'2"	105	Jr.	AA	Lodi, CA
Iliana Carrillo	4'11"	95	Fr.	AA	Mexico City, Mexico
Diana Lichtenstein	5'0"	100	Fr.	AA	Houston, TX
Amanda Lucas	5'1"	105	Fr.	AA	Long Island, NY
Patty Rothwell	5'5"	115	Fr.	AA	Hobbs, NM
Peggy Carrillo	5'5"	125	Jr.	AA	Albuquerque, NM

SKIING

The Lobo skiers felt that they could have another outstanding year, if everyone could stay healthy. Coach Brooks and Weber also felt that they had another very talented group of athletes that were capable of excelling nationally in skiing. The road ahead would not be easy as after last year's third place finish, several western and eastern schools were out to get the Lobos.

The team proved early on that they were capable of skiing with the best by capturing fourth place in their first three meets. And they put on quite a show for the home folk by taking third place on their home course, Sandia Peak. Once again UNM qualified a full team for nationals which was held in Bozeman, MT. Throughout the NCAA's the lead kept changing, with UNM fluctuating between third and fifth. Finally after the last race, UNM took sixth place, missing fifth by four points and fourth by eight points. There were six All-Americans. In men's alpine Anders Bjurman was first team All-American; men's nordic saw Pekka Kempi and Kristian Naess receive AA honors for their finishes in the 15k race. The team of Heide Sorensen, Kjersti Stenberg, and Wenche Hokholt placed third in the women's 3x5 relay for All-American first team honors. Stenberg also earned first team honors by finishing fourth in the women's 7.5k race.

The women's MVP award in alpine went to Danielle Labrie; and the nordic MVP was Kjersti Stenberg. The Lobo Award went to Karen Currie.

The team will lose senior Kjersti Stenberg.

SKI RESULTS

DATE	EVENT	PLACE	FINISH
an. 4-6	University of Reno Invitational	Reno, NV	4th/8
an. 11-12	University of Utah Invitational	Salt Lake City, UT	4th/8
an. 30-Feb. 2	University of Wyoming Invitational	Steamboat Springs, CO	4th/7
eb. 8-9	UNIVERSITY OF NEW MEXICO INVITATIONAL	ALBUQUERQUE, NM	3rd/7
eb. 21-24	University of Colorado Invitational	Silver Creek, CO	4th/8
ar. 1-10	NCAA Finals	Bozeman, MT	6th/18

ROSTERS

en's Alpine

ichard Abruzzo	Junior	Albuquerque, New Mexico
nders Bjurman (NCAA)	Sophomore	Linkeping, Sweden
erence Larkin	Junior	Pompey, New York
onas Lundgren (NCAA)	Freshman	Sweden
nders Peinert	Sophomore	Sundsvall, Sweden
er Wassgren (NCAA)	Freshman	Karlskoga, Sweden
teve Wood	Freshman	Los Alamos, New Mexico

omen's Alpine

aren Currie	Sophomore	Mammoth Lake, California
eslie Kasper (NCAA)	Sophomore	Edmonton, Canada
anielle Labrie (NCAA)	Freshman	Quebec, Canada
aila Miettinen (NCAA)	Junior	Tampare, Finland
harol Percy	Freshman	Banoff, Canada
ia Wahlqvist (NCAA)	Junior	Karlstad, Sweden
isa Kimura	Senior	Syracuse, New York

en's Nordic

tefan Farr	Sophomore	Missoula, Montana
rne Fossheim	Junior	Drammen, Norway
pen Jansen (NCAA)		Oslo, Norway
rmo Lehtonen	Junior	Tampere, Finland
kka Kempøi (NCAA)	Junior	Otalampi, Finland
ristian Naess (NCAA)	Sophomore	Oslo, Norway
sa Suomalainen (NCAA)	Junior	Kouvola, Finland

men's Nordic

nche Hokholt (NCAA)	Junior	Oslo, Norway
v-Katrin Ramskjell	Freshman	Drobak, Norway
idi Sorensen (NCAA)	Junior	Sorresisa, Norway
sel Trondseth	Senior	Trondheim, Norway
ren Wilson	Junior	Albany, New York
ersti Stenberg (NCAA)	Senior	Oslo, Norway

SOFTBALL

Coach Susan Craig put together another good ball club that showed promise. They were a good defensive team as well as could hit the ball. The team was ranked as high as eighth during the year, with a final ranking of 18th. At the end of the season, the Lobos had compiled a 32-23 win-loss record (31-21 by NCAA standards), with a HCAC record of 7-3 and third in the Conference Championship.

At one point in the season the team had a seven game winning streak going before losing to Oklahoma St. But the Lobos revenge was sweet as they came back through the losers bracket to capture the OU Tournament, with 4 wins in a row. The season saw five individual records broken and nine team records broken. In the pitching category, three records were broken for lowest ERA, most shutouts, and most no hitters. Shelia Blonigan was also named HCAC Player-of-the-Week.

At the conclusion of the Conference Championship, Shelia Blonigan, Kathy Dyer, Sue Inman, and Arlene Hernandez were named to the All-Conference team, while Michele Madrid received Honorable Mention. Madrid's number 25 was retired for her four year contribution to Lobo softball.

Madrid was also this years MVP recepient while Blonigan was the Offensive Player, and Inman the Defensive Player. The Lobo Award was shared by Dee Sanchez and Terri Nielson.

The team loses seniors Terri Nielson, Dee Sanchez, Chris Shott, and Michele Madrid.

1985 SOFTBALL RESULTS

DATE	OPPONENT	UNM SCORE	OPP. SCORE	(NCAA RECORD) SEASON RECORD	CONFERENCE RECORD	HOME/AWAY NEUTRAL
2/23	Texas Tech	1	2	L 0-1		A
2/23	Texas Tech	8	2	W 1-1		A
2/24	Texas Tech	5	0	W 2-1		A
2/24	Texas Tech	1	2	L 2-2		A
3/2	Highlands University	10	0	W 3-2		H
3/2	Highlands University	4	0	W 4-2		H
3/3	Highlands University	11	0	W 5-2		H
3/3	Highlands University	14	0	W 6-2		H
3/7	Roadrunner Invite					
3/7	Oklahoma City	7	0	W 7-2		N
3/7	Kansas	2	3	L 7-3		N
3/8	Central Arizona	0	2	L 7-4 (7-3)		N
3/8	Brigham Young	5	0	W 8-4 (7-3)		N
3/8	Northern Arizona	1	0	W 9-4 (8-3)		N
3/9	Oklahoma City	3	0	W 10-4 (9-3)		N
3/9	Pima CC	8	0	W 11-4 (9-3)		N
3/9	New Mexico State	5	4	W 12-4 (10-3)		N
3/14	Oklahoma Invite					
3/14	Baylor University	2	0	W 13-4 (11-3)		N
3/14	Indiana	1	0	W 14-4 (12-3)		N
3/14	OSU	2	5	L 14-5 (12-4)		N
3/15	Texas Tech	7	1	W 15-5 (13-4)		N
3/15	Central Michigan	1	0	W 16-5 (14-4)		N
3/15	Oklahoma University	3	0	W 17-5 (15-4)		N
3/16	Missouri	1	0	W 18-5 (16-4)		N
3/29	Texas A&M Round Robin					
3/29	Baylor	3	1	W 19-5 (17-4)		N
3/29	Utah State	0	1	L 19-6 (17-5)		N
3/29	South Florida	1	2	L 19-7 (17-6)		N
3/30	Texas A & M	0	5	L 19-8 (17-7)		N
3/30	LA Tech	0	2	L 19-9 (17-8)		N
3/31	Florida State	2	3	L 19-10 (17-9)		N
3/31	Northwest LA	15	0	W 20-10 (18-9)		N
3/31	Southwest Missouri	1	3	L 20-11 (18-10)		N
3/31	Stanford	3	0	W 21-11 (19-10)		N
4/5	*Northern Arizona	3	1	W 22-11 (20-10)	1-0	H
4/5	*Northern Arizona	7	1	W 23-11 (21-10)	2-0	H
4/6	*Colorado State	3	0	W 24-11 (22-10)	3-0	H
4/6	*Colorado State	0	1	L 24-12 (22-11)	3-1	H
4/13	Diamond Showdown					
4/13	Texas A & M	3	2	W 25-12 (23-11)		H
4/13	Texas A & M	2	5	L 25-13 (23-12)		H
4/14	Texas A & M	4	5	L 25-14 (23-13)		H
4/14	Texas A & M	0	5	L 25-15 (23-14)		H
4/18	University of Pacific Invite					
4/18	San Diego State	1	2	L 25-16 (23-15)		N
4/18	San Francisco	0	3	L 25-17 (23-16)		N
4/19	Arizona State	1	2	L 25-18 (23-17)		N
4/19	Texas Tech	4	2	W 26-18 (24-17)		N
4/20	U. of Pacific	1	0	W 27-18 (25-17)		N
4/20	Oregon State	2	3	L 27-19 (25-18)		N
4/27	*New Mexico State	12	1	W 28-19 (26-18)	4-1	H
4/27	*New Mexico State	10	0	W 29-19 (27-18)	5-1	H
5/1	*Utah State	3	0	W 30-19 (28-18)	6-1	A
5/1	*Utah State	3	1	W 31-19 (29-18)	7-1	A

1985 Softball Results

DATE	OPPONENT	UNM	OPP	W/L	RECORD	CONFERENCE RECORD	HOME/AWAY NEUTRA
5/2	*Utah University	2	4	L	31-20(29-19)	7-3	A
5/2	*Utha University	0	2	L	31-21(29-20)	7-3	A
6/9	HCAC CHAMPIONSHIPS - Albuquerque, NM						
6/9	Utah State	3	5	L	31-22(29-21)		H
6/10	Northern Arizona	4	0	W	32-22(30-21)		H
6/11	Utah	0	1	L	32-23(31-21)		H

1985 SOFTBALL ROSTER

NO.	NAME	POSITION	CLASS	HOMETOWN
10	Rocky Bustos	Third	Freshman	Espanola, NM
13	Missy Salazar	Outfield	Freshman	Espanola, NM
14	Kathy Dyer	First/Second	Junior	Ann Arbor, MI
17/29	Terri Nielson	Outfield	Senior	San Bernadino, CA
18	Arlene Hernandez	Pitcher	Freshman	Irvine, CA
19	Dee Sanchez	Third	Senior	Albuquerque, NM
24	Chris Shott	Outfield	Senior	Chevy Chase, MD
25	Michele Madrid	Outfield/Catcher	Senior	Espanola, NM
26	Amy Lucero	Second	Junior	Los Alamos, NM
27	Sue Inman	Outfield	Junior	Midland, MI
28	Sheila Blonigan	Shortstop	Jinior	Golden Valley, MN

Head Coach: Susan Craig

Assistants: Ken Johnson
Meg Connors

Final Season Record: 32-23
NCAA Record: 31-21
Final HCAC Record: 7-3

SWIMMING

The women's swim team was small in number this year, but their desire and drive made up for the small squad. The season started off with the women competing against three tough schools; CSU, Air Force, and BYU. The Lobos placed second in each meet, and their times kept getting faster and faster.

BY December the team felt like seasoned veterans and they were ready for the intensive training ahead in preparation for the HCAC Championship. The squad captured first place in their next three meets, soundly defeating conference foes Wyoming, NMSU, and Northern Arizona. A trip to Las Vegas was profitable but not at the slots . . . the women took fourth place in the Rebel Classic out of nine top teams. Returning home the swimmers took another first place when they defeated Texas Tech in thier final meet before HCAC.

In the preseason poll UNM was expected to battle Utah for third place, while CSU was slated to retain the title followed by BYU, but the Lobos refused to believe this story. Attacking all events as if it might be their last chance to ever swim, the Lobos went after the Conference leaders. By the end of the three day affair UNM had six, second place finishes; nine, third place finishes; and numerous points from lower finishes. Team wise, BYU took first place, with the Lobos coming in a strong second, followed by CSU for third. All-Conference swimmers were freshman Karen Snyder, and Gorel Hagelin and senior Kathy Dixon.

This year's MVP was Kathy Dixon, while Gorel Hagelin received the Lobo Award. The Most Imporved Diver was sophomore Melanie Marshall. The team losses seniors Kathy Culpepper, Kathy Dixon and Lori Pachelli.

SWIM TEAM SCHEDULE & RESULTS 1984-85

				Results
November	2	Colorado State	Ft. Collins, CO	2/2
November	3	* Air Force	Colorado Springs, CO	2/2
November	10	Arizona & Nevada-Vegas	Tempe, AZ	non-scoring
NOVEMBER	16	* BRIGHAM YOUNG	JOHNSON POOL 3:00 PM	2/2
DECEMBER	8	* WYOMING & NEW MEXICO STATE	JOHNSON POOL 1:00 PM	1/2, 1/2
JANUARY	10	NORTHERN ARIZONA	JOHNSON POOL 11:00 AM	1/2
January	25-26	Rebel Classic	Las Vegas, NV	4/9
FEBRUARY	9	TEXAS TECH	JOHNSON POOL 1:00 PM	1/2
February	28-1-2	High Country Athletic Conference Championship	Las Cruces, NM	2/7
March	21-22-23	National Collegiate Athletic Association	University, AL	-

LOBO SWIM ROSTER

NAME	CLASS	EVENT	HOMETOWN
Jinny Aki	freshman	backstroke	Honolyly, HI
Amy Burgeson	sophomore	distance free	Albuquerque, NM
Joann Chatfield	freshman	diver	Albuwuerque, NM
Kathy Culpepper	senior	breaststroke	Farmington, NM
Kathy Dixon	senior	all around	Santa Fe, NM
Gorel Hagelin	freshman	breaststroke	Ystad, Sweden
Alison Hamilton	freshman	distance free	Aberdeen, Scotland
Tara Looney	sophomore	free, fly	Fallbrook, CA
Laverne Lopez	freshman	backstroke	Santa Fe, NM
Melanie Marshall	sophomore	diver, free	Albuquerque, NM
Kathy Mchenry	junior	walk-on	Placitas, NM
Karen Nixon	sophomore	middle & distance	Albuquerque, NM
Lori Pachelli	senior	free	Albuquerque, NM
Karen Snyder	freshman	middle & distance	St. Louis, MO
Sarah Spoehr	freshman	fly, IM	Honolyly, HI

TENNIS

The Women's tennis team made good progress towards becoming a powerful opponent in the HCAC and the southwest.

The fall season ended with the Lobos posting a 7-2 dual record, and with a big win over Colorado. The spring found the team on the road during February and March, and the strain of travel showed as the dual record was 11-13. But the Lobos had also played some nationally ranked teams on the road, so valuable knowledge was gained, if not always a win.

A standout this year was Leanne Palmisano an All-Conference Player in singles, with a 21-10 dual record which qualified her for the NCAA Individual Championshp. This was the first time New Mexico had been represented at the NCAA's. Nancy Rath had a good year with a record of 21-14 as well as Palmisano and Kelly Fackel had another good season as the #1 doubles pair for UNM, and were named to the HCAC All-Conference team.

Palmisano received MVP honors for tennis. The team will lose seniors Leanne Palmisano and Mari Forbes.

TEAM'S COMPOSITE DUAL-MEET RECORD - TENNIS
UNIVERSITY OF NEW MEXICO
TENNIS

	DATE	RECORD RESULT	OPPONENT	SCORE	HOME/AWAY NEUTRAL
Fall					
	10-3-84	W 1-0	Colorado State	8-0	A
	10-4-84	W 2-0	Northern Colorado	5-2	A
	10-5-84	W 3-0	Colorado	9-0	A
	10-6-84	W 4-0	Denver	8-1	A
	10-11-84	L 4-1	Houston	8-1	H
	10-12-84	L 4-2	Lamar	5-1	H
	10-13-84	W 5-2	New Mexico State	6-0	H
	10-25-84	W 6-2	UTEP	9-0	H
	10-27-84	W 7-2	WTSU	5-1	H
Spring					
	2-1-85	L 7-3	Nebraska	5-4	N
	2-2-85	L 7-4	Texas Tech	9-0	A
	2-3-85	L 7-5	UTPB	9-0	N
	2-8-85	W 8-5	New Mexico State	9-0	H
	2-27-85	L 8-6	BYU	9-0	A
	2-28-85	L 8-7	Arizona	8-1	N
	3-1-85	W 9-7	Iowa	9-0	N
	3-2-85	L 9-8	Wisconsin	8-1	N
	3-3-85	L 9-9	Utah	7-2	A
	3-9-85	W 10-9	San Diego University	9-0	A
	3-10-85	L 10-10	U.S.I.U.	9-0	A
	3-11-85	L 10-11	San Diego State University	9-0	A
	3-13-85	L 10-12	UC Irvine	6-3	A
	3-14-85	L 10-13	Pepperdine	8-1	A
	3-15-85	W 11-13	Yale	5-4	A
	3-28-85	L 11-14	Wichita State	6-3	H
	3-30-85	L 11-15	Louisiana State	8-1	H
	4-10-85	W 12-15	Utah	6-3	H

TENNIS

DATE	RECORD RESULT	OPPONENT	SCORE	HOME/AWAY NEUTRAL
4-11-85	W 13-15	Tulsa	9-0	N
4-12-85	L 13-16	Texas Tech	7-2	N
4-13-85	W 14-16	San Jose State	6-3	N
4-23-85	L 14-17	BYU	6-3	H
HCAC CHAMPIONSHIP				
4-26-85	L 14-18	Utah	5-4	H
4-26-85	W 15-18	Northern Arizona	6-0	H
4-27-85	W 16-18	New Mexico State	8-1	H
-	-	NCAA Individual Championship - Leanne Palmisano	lost first round	N

TENNIS ROSTER

Name	Class	Hometown	Dual Record
Mari Forbes	Senior	Carlsbad, NM	15-13
Leanne Palmisano	Senior	Albuquerque, NM	21-10
Lisa Buss	Junior	Vista, CA	3-4
Kelly Packel	Junior	Rock Island, ILL	13-12
Mary Nell Mayer	Sophomore	Albuquerque, NM	2-1
Nancy Rath	Sophomore	Omaha, NEB	21-14
Zonia Sandoval	Sophomore	Albuquerque, NM	6-7
Ute Schroff	Sophomore	Zirndorf, Germany	9-14
Karen Curry	Sophomore	Kansas City, MO	17-17

CROSS COUNTRY

The women's cross country team continues to make outstanding progress for a young and small squad. They were nationally ranked for the second year in a row. On a California trip the Lobos did very well against some of the strongest women's teams by placing third in Stanford and sixth in Berkeley. They captured second place in the HCAC and District 7 Championship. Carole Roybal qualified for the NCAA's where she placed 19th out of 133 runners which earned her All-American honors. Roybal also received her team's MVP Award, while Kelly Champagne was the Most Improved Runner. Roybal and Champagne were also named to the HCAC All-Conference Team.

TRACK & FIELD

The track team continues to amaze Coach Mike MacEachen. Throughout the season personel bests were constantly changing and as a team they were tough with some of the top 20 teams that thought the Lobos would be a push-over.

This year New Mexico saw the completion of a new track facility, which was the sight for the WAC-HCAC Co-Championship. The women inaugurated the track in style by tying BYU for the Championship title. This was the first time the women tracksters have won the title. Coach MacEachen also received Coach-of-the-Year. Named to the All-Conference team were Carole Roybal, Barbara Bell, Pam Posey, Joan Sterrett, Kelly Champagne, Kristi Leonard, Tonia Thompson, Shannon Vessup, and Reater Golston.

Three individuals qualified for the NCAA's; Pam Posey in the 100m; Kristi Leonard in the 1500m; and Carole Roybal in the 3000m. Kathy Pfiefer also competed for the West Team at the National Sports Festival in Baton Rouge. She turned in an outstanding performance capturing the gold medal in the mini marathon with a time of 1 hour, 18 minutes, and 27 seconds. A full marathon was not run due to the extreme heat and humidity.

Track's MVP Award went to Barbara Bell, while Tonia Thompson was named the Most Valuable Field Athlete and Carole Roybal captured the Track Athlete Award.

The team loses seniors Jean Sterrett, Barbara Bell, Sue Qualls, Shannon Vessup, and Kristi Leonard.

CROSS COUNTRY RESULTS

-1984-

DATE	RACE	LOCATION	FINISH/TEAMS
Sept. 8	UNM vs ARIZONA STATE	ALBUQ. NM	1/2
15	NAU Invitational	Flagstaff, AZ	1/2
22	UTEP Invitational	El Paso, TX	2/6
Oct. 6	Stanford Invitational	Palo Alto, CA	3/17
13	California Invitational	Berkeley, CA	6/9
20	Arizona Invitational	Tucson, AZ	1/12
27	LOBO INVITATIONAL	ALBUQ. NM	1/3
Nov. 10	HCAC Championship		2/7
	&		
	District 7 NCAA Championship	Provo, UT	2/12
19	NCAA Championships Carole Roybal	Erie, PA	19/133 (individual)

OUTDOOR
TRACK & FIELD RESULTS
1985

DATE	RACE	LOCATION	FINISH/TEAMS
Feb. 23	USC & Long Beach	Los Angeles, CA	2/2, 1/2
Mar. 9	UNM vs UTEP	Albuq. NM	non-scoring
23	Arizona Invite	Tucson, AZ	non-scoring
30	Texas Tech Invitational	Lubbock, TX	non-scoring
Apr. 6	Sun Angel Classic & Mesa Invite	Phoenix, AZ	non-scoring
13	UNM vs NCU & Adams St.	Albuq. NM	1/2, 1/2
21	UTEP Invitational	El Paso, TX	non-scoring
27-28	Mt. SAC Relays	Walnut, CA	non-scoring
May 10-11	HCAC Championship	Albuq. NM	1/7
18-19	SPTAC	Westwood, CA	
May 29-June 1	NCAA Outdoor Championships	Austin, TX	

1984-85 LOBO WOMEN'S ROSTER

DISTANCE RUNNERS	EVENT	HT	WGT	CL	HOMETOWN
1. Diane Baca	5K-10K	4'9"	85	Fr.	Albuquerque, NM
2. Laurette Barboa	800m	5'6"	118	Fr.	Albuquerque, NM
3. Kelly Champagne	5K & 10K	5'6"	115	So.	Canton, Mich.
4. Dawn Gale	3K & 5K	5'2"	95	Fr.	Gilette, Wyo
5. Dawn Eriacho	1500 & 3K	5'4"	120	Fr.	Zuni, NM
6. Kristi Rapp-Leonard	1500m	5'6"	116	Sr.	Albuquerque, NM
7. Linda Mitchell	1500/3K	5'4½"	101	Jr.	Bellevue, WA
8. Lisa Mitchell	1500/3K	5'5"	106	Jr.	Bellevue, WA
9. Carole Roybal	1500m/3K	5'5"	110	So.	Albuquerque, NM
10. Debbie Sprick	800/1500	5'4"	135	Fr.	Albuquerque, NM
11. Joan Sterrett	800m/1500m	5'8½"	123	Sr.	Jamacia, NY
12. Alisabeth Thurston	5K & 10K	5'2"	95	So.	Los Alamos, NM
13. Cynthia Valdez	3K & 5K	5'2"	105	Jr.	Albuquerque, NM
14. Dolores Zamora	3K & 5K	5'4"	120	Fr.	Albuquerque, NM

SPRINTS AND FIELD EVENTS					
1. Jackie Bailey	100m Hurdles	5'4"	120	Fr.	La Marque, TX
2. Barbara Bell	100m/200m	5'4½"	123	Sr.	Fort Worth, TX
3. Reater Golston	400m/200m	5'10"	130	Fr.	Albuquerque, NM
4. Sandy Gomez	High Jump	5'9 3/4"	118	Fr.	Albuquerque, NM
5. Suzanne Hendrix	100m/200m	5'4"	125	Fr.	Chama, NM
6. Susan Jordon	Hurdles	5'4"	125	So.	Albuquerque, NM
7. Marla Paolino	400/500	5'1"	122	Fr.	Raton, NM
8. Pam Posey	100m/200m	5'3"	118	So.	Albuquerque, NM
9. Sue Qualls	Discus	5'4½"	169	Sr.	Albuquerque, NM
10. Michelle Richardson	400m/800m	5'9"	124	So.	Albuquerque, NM
11. Trish Shoemaker	Javelin	5'8¼"	133	Jr.	Albuquerque, NM
12. Yolanda Sommers	400m/200m	5'8"	125	So.	Albuquerque, NM
13. Tara Spurlock	100m/Long Jump	5'8"	130	So.	Albuquerque, NM
14. Xochitl Tellez	100m/200m	5'6"	125	Fr.	Las Vegas, NM
15. Tonia Thompson	Hurdles	5'10"	130	Fr.	Albuquerque, NM
16. Shannon Vessup	400m/400m Hurdles	5'11"	135	Sr.	San Bernardino, CA
17. Kim Werner	High Jump	5'5"	115	So.	Garden City, KS
18. Debra White	Shot Put/ Discus	5'9¼"	225	Fr.	Albuquerque, NM

VOLLEYBALL

The volleyball team finished the season with a 16-18 record, 4-8 Conference record and in fifth place within an ever increasing strcng volleyball conference. The year was an up and down one for this team too.

The Lobos played well, but had a tough schedule against Top 10 teams as well as the fact that HCAC is becoming well known as maybe the second or third toughest conference in the country when it comes to volleyball. The team was also relatively young and lacked the experience of some of the other teams that they played. But they showed that they had promise for the future with wins over Cal Berkeley, Houston and Utah. Katy Timmers became a very aggressive player, being named Player-of-the-Week in November. The team also made it into the Top 20 rankings for several weeks in the season. Setter Jocelyn Funk and hitter JoAnn O'Connell were named to the All-Tournament Team at the Texas Invitational. Funk and Timmers received Honorable Mention on the HCAC Conference Team.

Coach Laurel Kessel was selected to be the assistant coach to the World University Games this August in Japan. Assistant Coach Sue Hegerle earned a berth on the U.S. National team, with hopes of being on the 1988 Olympic team. Player Jeannine Fenske was selected for the West Team in the National Sports Festival, to be held in Baton Rouge, LA.

UNM VOLLEYBALL
FINAL RESULTS - 1984

						Record
Sept.	7	L	at Arizona State	15-12,8-15,11-15,15-11,15-7		0-1
	9	L	at University of Arizona	7-15,14-16,3-15		0-2
	12	W	at UC San Diego	8-15,15-9,15-11,15-6		1-2
	13-15		at San Diego State Invitational:			
	13	L	Cal Poly SLO	7-15,7-15,4-15		1-3
	14	L	Oregon	15-0,15-5,15-2		1-4
	14	L	Utah	14-16,15-11,14-16,15-13,15-12		1-5
	15	W	Cal Berkeley	14-16,15-12,13-15,15-13,15-6		2-5
	15	W	Montana	8-15,16-14,15-7,15-12		3-5
	20-22		at BYU Invitational: Provo, Utah			
	20	W	Boise State	15-12,12-15,21-19		4-5
	20	L	Weber State	14-15,15-12,15-11		4-6
	21	L	Wyoming	8-15,8-15		4-7
	21	L	Texas Tech	13-15,15-12,12-15		4-8
	22	W	Idaho State	15-4,15-5		5-8
	22	L	Southwest Missouri	16-14,8-15,15-3		5-9
	27	W	WEST TEXAS STATE UNIVERSITY	15-7,15-7,15-11		6-9
	28-29		at Texas Invitational: Jocelyn Funk & JoAnne O'Connell, All-Tourney			
	28	W	Houston	11-15,10-15,15-9,15-7,15-13		7-9
	29	L	Texas	15-9,15-2,16-14		7-10
Oct.	4	L	at New Mexico State*	8-15,15-17,16-14,11-15	(0-1)	7-11
	5-6		at Wendy's Classic, Las Cruces, NM:			
	5	W	Houston	15-11,17-15,9-15,13-15,15-13		8-11
	5	W	Northern Arizona	15-8,15-10,15-10		9-11
	6	W	New Mexico State	15-5,18-16,15-11		10-11
	6	W	New Mexico State	3-15,15-11,15-12,16-14		11-11
	11	L	BRIGHAM YOUNG UNIVERSITY*	15-5,15-6,15-10	(0-2)	11-12
	12	W	UNIVERSITY OF UTAH*	15-9,15-4,10-15,15-12	(1-2)	12-12
	13	W	UTAH STATE UNIVERSITY*	15-11,15-12,17-15	(2-2)	13-12
	19	L	at Colorado State University*	15-12,13-15,6-15,5-15	(2-3)	13-13
	20	L	at University of Wyoming*	11-15,15-12,6-15,6-15	(2-4)	13-14
	23	W	at Northern Arizona University	15-10,12-15,15-13,15-9		14-14
	26	W	NEW MEXICO STATE*	12-15,15-3,15-11,10-15,15-10	(3-4)	15-14
Nov.	8	L	at University of Utah*	15-10,13-15,8-15,8-15	(3-5)	15-15

Nov.	9	L	at Brigham Young University*	10-15,5-15,15-17	(3-6)	15-1
	10	W	at Utah State University*	15-13,15-9,15-10	(4-6)	16-1
	16	L	WYOMING*	13-15,13-15,4-15	(4-7)	16-1
	17	L	COLORADO STATE*	6-15,15-7,16-14,5-15,2-15	(4-8)	16-1

*denote HCAC matches
All home matches indicated with all CAPS.
Final season record: 16-17
HCAC final record: 4-8

VOLLEYBALL ROSTER

NO	NAME	CLASS	POS.	HT.	HOMETOWN
1	Jocelyn Funk	So.	S	5-7	Manitoba, Canada
2	Lori Forrest	Fr.	L	5-10	Cedar Rapids, Iowa
4	Julie Barrett	Fr.	R	5-9	San Diego, California
7	Daven Quelle	Fr.	L	5-11	Santa Cruz, New Mexic
8	Cathy Peterson	Fr.	O	5-8	Edina, MN
9	Linda Archuleta	Sr.	M	5-10	Albuquerque, New Mexi
10	Sue Guinn	So.	M	6-1	Colorado Springs, Col
11	Becky Lucht	Sr.	R	5-10	Tijeras, New Mexico
12	JoAnne O'Connell	Jr.	L	5-9	Albuquerque, New Mexi
13	Jeannine Fenske	So.	M	5-10	Hidden Hills, Califor
14	Katy Timmers	So.	M	6-0	Middletown, Ohio

Head Coach: Laurel Brassey Kessel (2nd year)

Assistant: Sue Hegerle (1st year)

PEAT MARWICK

THE UNIVERSITY OF NEW MEXICO FOUNDATION, INC.

Financial Statements

June 30, 1985

(With Auditors' Report Thereon)

PEAT MARWICK

Peat, Marwick, Mitchell & Co.
Certified Public Accountants
20 First Plaza, Suite 500
Post Office Box 1027
Albuquerque, New Mexico 87103

Board of Directors
The University of New Mexico Foundation, Inc.:

We have examined the balance sheet of The University of New Mexico Foundation, Inc. as of June 30, 1985 and the related statements of revenues and other additions, expenses and changes in fund balances and changes in cash for the year then ended. Our examination was made in accordance with generally accepted auditing standards and, accordingly, included such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances.

In our opinion, the aforementioned financial statements present fairly the financial position of The University of New Mexico Foundation, Inc. at June 30, 1985 and the results of its operations and the changes in its fund balances and cash for the year then ended, in conformity with generally accepted accounting principles applied on a basis consistent with that of the preceding year.

Peat, Marwick, Mitchell & Co.

September 19, 1985

THE UNIVERSITY OF NEW MEXICO FOUNDATION, INC.

Balance Sheet

June 30, 1985
with comparative memorandum figures at June 30, 1984

Assets	Operating Fund	General Fund	Endowment Fund	Life Income Fund	Memorandum only combined totals 1985	1984
Cash:						
Cash and cash equivalents	$ 11,613	631,200	218,223	19,028	880,064	952,933
Certificates of deposit	-	950,000	400,000	94,889	1,444,889	889,630
Total cash	11,613	1,581,200	618,223	113,917	2,324,953	1,842,563
Accrued interest receivable	-	14,341	1,010	295	15,646	21,171
Securities	-	25,000	750,000	207,430	982,430	-
Real estate	-	454,802	-	340,000	794,802	428,052
Leased equipment, at cost	5,260	-	-	-	5,260	9,148
Deferred capital campaign expenses (note 4)	-	116,719	-	-	116,719	-
Other	802	-	-	-	802	184
	$ 17,675	2,192,062	1,369,233	661,642	4,240,612	2,301,118
Liabilities and Fund Balances						
Liabilities:						
Due to The University of New Mexico	$ -	2,080,384	-	-	2,080,384	1,621,338
Deferred annuities payable	-	-	-	380,704	380,704	-
Scholarships payable	-	29,867	-	-	29,867	23,106
Obligations under capital leases	5,357	-	-	-	5,357	8,350
Other	3,529	6,408	-	1,412	11,349	18,175
Total liabilities	8,886	2,116,659	-	382,116	2,507,661	1,670,969
Fund balances	8,789	75,403	1,369,233	279,526	1,732,951	630,149
	$ 17,675	2,192,062	1,369,233	661,642	4,240,612	2,301,118

See accompanying notes to financial statements.

THE UNIVERSITY OF NEW MEXICO FOUNDATION, INC.

Statement of Revenues and Other Additions, Expenses
and Changes in Fund Balances

Year ended June 30, 1985
with comparative memorandum figures for the year ended June 30, 1984

	Operating Fund	General Fund	Endowment Fund	Life Income Fund	Memorandum only combined totals 1985	1984
Revenues and other additions:						
Donations (note 2)	$ 204	1,473,918	909,923	170,691	2,554,736	1,175,958
Contributed services (note 3)	186,522	-	-	-	186,522	128,148
Interest and dividends	4,331	190,654	4,091	-	199,076	149,490
Other	2,030	9,577	1,453	5,425	18,485	6,779
Total revenues and other additions	193,087	1,674,149	915,467	176,116	2,958,819	1,460,375
Expenses:						
Grants to The University of New Mexico	-	1,581,450	-	-	1,581,450	1,134,693
General administrative services (note 3)	248,676	-	-	-	248,676	183,436
Capital campaign expenses (note 4)	-	15,631	-	-	15,631	-
Other	-	9,577	-	683	10,260	13,181
Total expenses	248,676	1,606,658	-	683	1,856,017	1,331,310
Excess (deficiency) of revenues and other additions over expenses	(55,589)	67,491	915,467	175,433	1,102,802	129,065
Fund balances at beginning of year	6,571	65,719	453,766	104,093	630,149	501,084
Transfer - interest and dividends	57,807	(57,807)	-	-	-	-
Fund balances at end of year	$ 8,789	75,403	1,369,233	279,526	1,732,951	630,149

See accompanying notes to financial statements.

THE UNIVERSITY OF NEW MEXICO FOUNDATION, INC.

Statement of Changes in Cash

Year Ended June 30, 1985
with comparative memorandum figures for the year ended June 30, 1984

	Operating Fund	General Fund	Endowment Fund	Life Income Fund	Memorandum only combined totals 1985	1984
Sources of cash:						
Excess (deficiency) of revenues and other additions over expenses	$(55,589)	67,491	915,467	175,433	1,102,802	129,065
Items not using (providing) cash:						
Depreciation expense	3,888	-	-	-	3,888	3,802
Donated real estate	-	(26,750)	-	(340,000)	(366,750)	(327,268)
Donated securities	-	-	(750,000)	(207,430)	(957,430)	-
Increase in deferred annuities payable	-	-	-	380,704	380,704	-
Cash provided (used)	(51,701)	40,741	165,467	8,707	163,214	(194,401)
Donations received due to The University of New Mexico	-	1,413,241	-	-	1,413,241	1,297,238
Increase in scholarships payable	-	6,760	-	-	6,760	3,083
	(51,701)	1,460,742	165,467	8,707	1,583,215	1,105,920
Uses of cash:						
Payments to The University of New Mexico	-	954,195	-	-	954,195	862,922
Increase in deferred capital campaign expenses	-	116,719	-	-	116,719	-
Purchase of securities	-	25,000	-	-	25,000	-
Other	11,416	(7,381)	875	1	4,911	9,117
	11,416	1,088,533	875	1	1,100,825	872,039
Interfund transfer	57,807	(57,807)	-	-	-	-
Increase (decrease) in cash	(5,310)	314,402	164,592	8,706	482,390	233,881
Cash:						
Beginning of year	16,923	1,266,798	453,631	105,211	1,842,563	1,608,682
End of year	$ 11,613	1,581,200	618,223	113,917	2,324,953	1,842,563

See accompanying notes to financial statements.

THE UNIVERSITY OF NEW MEXICO FOUNDATION, INC.

Notes to Financial Statements

June 30, 1985

(1) Summary of Significant Accounting Policies

The University of New Mexico Foundation, Inc. (Foundation) was organized to solicit, receive, hold, invest and transfer funds for the benefit of The University of New Mexico (UNM).

The financial statements of the Foundation have been prepared on the accrual basis. The significant accounting policies utilized are described below to enhance the usefulness of the financial statements to the reader.

(a) Fund Accounting

To ensure observance of limitations and restrictions placed on the use of resources available to the Foundation, the accounts of the Foundation are maintained in accordance with the principles of fund accounting. This is the procedure by which resources are classified for accounting and reporting into funds established according to their nature and purpose. The assets, liabilities and fund balances of the Foundation are reported in four self-balancing fund groups as follows:

- Operating Fund - unrestricted resources and resources restricted by donors for Foundation operating purposes.
- General Fund - expendable funds for conveyance to UNM for presidential scholarships, academic and administrative departments, building projects and other university related activities. Interest and dividends earned on assets in this fund that is not distributed to UNM may, by action of the Foundation Board, be transferred to the Operating Fund.
- Endowment Fund - funds subject to restrictions in gift instruments requiring that only the income be used and the principal be held in perpetuity.
- Life Income Fund - funds subject to the requirement that part of the income earned on the fund assets be paid periodically to designated beneficiaries. Such income payments terminate at a time specified in the agreements at which time the principal reverts to the Foundation. Gift revenue is recognized to the extent that the fair market value of the assets at date of contribution or at subsequent measurement periods exceeds the deferred annuities obligation. The deferred annuities obligation is the present value of the aggregate liability of amounts estimated to be paid to beneficiaries based upon the actuarially determined expected lives of the designated beneficiaries.

(Continued)

All gains and losses arising from the sale, collection or other disposition of investments and other noncash assets are accounted for in the funds that owned the assets. Income from investments is accounted for in the funds reflecting the assets except for income derived from investments of the Endowment Fund, which is accounted for as revenue in accordance with the terms of the endowment.

(b) Cash and Cash Equivalents

Cash and cash equivalents include cash on deposit with UNM and money market investments subject to withdrawal within one day.

(c) Depreciation

Leased equipment is depreciated over the term of the lease using the straight-line method.

(d) In-kind Donations

Gifts of securities and real estate contributed to the Foundation are recorded at estimated net market value at date of contribution (note 1(g)). All real estate reflected in the accompanying balance sheet at June 30, 1985 was contributed to the Foundation.

(e) Recognition of Revenues and Expenses

The Foundation recognizes donations as revenue when received, with all other revenue recognized when earned. Those donations received which are designated for grants to UNM also have a liability and expense reflected simultaneously with the recognition of revenue. Capital campaign expenses are deferred until such time that applicable revenues are received or if it is determined that such revenues are not collectible, the deferred amounts will be charged to operations. All other expenses are recognized when the liability is incurred.

(f) Pledges Receivable

Pledges receivable have not been recorded in the accompanying financial statements since their collectibility cannot be legally enforced. Pledges receivable estimated to be collectible at June 30, 1985 follow:

Capital Campaign	$ 1,688,730
Popejoy Society	744,150
Presidential scholarship	51,170
	$ 2,484,050

(Continued)

THE UNIVERSITY OF NEW MEXICO FOUNDATION, INC.

Notes to Financial Statements

(g) Securities

Securities are carried at the lower of cost or market and, if donated, at their estimated net market value at date of contribution, except for those held in the Endowment Fund. The securities recorded in the Endowment Fund have been guaranteed by the donor as to recoverability ($750,000 at date of gift) and therefore there has been no write down to the lower of cost or market.

(h) Memorandum Only

The "memorandum only" columns contain the totals of similar accounts of several funds. Since the assets of the several funds are designated by donor(s) for specific purposes, the totaling of the accounts, including assets therein, is for convenience only and does not indicate that the combined assets are available in any manner other than that provided for by the donor(s).

(i) Reclassifications

Certain amounts for 1984 have been reclassified to conform to the presentation for 1985.

(2) Donations in the General Fund

Donations in the General Fund consist of the following categories for the year ended June 30, 1985:

Designated:	
Presidential scholarships	$ 324,111
Various as stipulated by donor	947,695
	1,271,806
Undesignated	202,112
Total	$ 1,473,918

(3) Contributed Services

UNM's Development Office provides, without cost, services in the form of personnel to the Foundation. The direct payroll costs of these personnel have been reflected as contributed services and corresponding expenses in the accompanying statement of revenues and other additions, expenses and changes in fund balances. Various other services are contributed to the Foundation, the values of which are not readily determinable and, therefore, are not reflected as contributions or expenses in the accompanying financial statements.

(4) Deferred Capital Campaign Expenses

As of June 30, 1985, the Foundation has incurred $132,350 of expenses directly related to the conduct of the Capital Campaign. Funding of these expenses is to be obtained through an allocation of all donations associated with this campaign. Through June 30, 1985, $15,631 had been allocated from total donations received and therefore expensed in order to match the applicable revenue. The remaining deferred expenses of $116,719 will be expensed as the related revenue is received.

(Continued)

THE UNIVERSITY OF NEW MEXICO FOUNDATION, INC.

Notes to Financial Statements

(5) Related Party Transaction

The Foundation is the recipient of the net income of CSE, Inc. (CSE), a New Mexico not-for-profit corporation. Two of the three directors of CSE are also members of the Board of Directors of the Foundation. During the year ended June 30, 1985, $24,375 was received from CSE.

(6) Income Taxes

The Foundation is a publicly supported organization exempt from Federal income taxes under Section 501(c)(3) of the Internal Revenue Code and has been classified as an organization that is not a private foundation under Section 509(a) of the Internal Revenue Code.

ALUMNI ASSOCIATION
THE UNIVERSITY OF NEW MEXICO
July 1, 1984 - June 30, 1985
Steve Ross, Associate Director

The UNM Alumni Association is a non-profit membership organization whose main purpose is to promote and support the University of New Mexico. All former students of UNM who have been enrolled for credit shall be considered regular members of the Association.

The Alumni Relations office, with a staff of thirteen, is a budgeted department of the University of New Mexico and administers all functions of the Alumni Association.

I. Alumni Chapter Program

We currently have 32 chapters in place nationwide. The purpose of a chapter is to provide a link between the university and the alumni in a given community. The chapters are the backbone of the Association and serve as an effective source of news and information concerning the university and alumni activities. This year new chapters were inaugurated in the following cities: Chicago, Austin, San Francisco, Oklahoma City, and Raton.

Lobo Day celebrations were held in 31 chapter cities across the country with 1500 alumni participating in a salute to UNM's founding. UNM faculty and staff served as speakers at

many of these Lobo Day events at the expense of the Alumni Association.

Thirty chapter representatives participated in an Alumni Council meeting and workshop on June 7 in Hodgin Hall.

The Alumni Community Scholarship Program was re-vamped in an effort to develop out-of-state scholarships through the chapters and also to enlist financial support from in-state chapters.

A Native American Chapter was inaugurated in an effort to involve alumni with recruiting Native American students and to recognize the achievements of UNM's Native American alumni.

The first corporate alumni chapter was launched this year at the Public Service Company of New Mexico in Albuquerque with President Farer addressing over 35 alumni at the PNM headquarters.

II. Alumni Association Board of Directors

The Alumni Association is governed by a 19-member volunteer board of directors who are elected to a three-year term by the general membership. The Board was re-structured in 1983, going from a 120-member board to the present 19-member board. Officers include a president, president-elect, treasurer, and immediate past-president.

III. Educational Programs

In July of 1984, the first Alumni Summer Family Camp was initiated. Thirty-five alumni from six different states participated in a three-day program consisting of mini-courses on such topics as introduction to micro-computers and the history of New Mexico. Recreational activities, a barbeque, campus tours, Albuquerque highlights, and an evening at Popejoy Hall rounded out the camp program.

IV. Alumni Awards Program

The Alumni Association sponsors awards which recognize alumni for their various contributions to professional, community, and university endeavors. This year the Zimmerman Award, which is the highest honor that can be bestowed upon an alumnus, was presented to Judge Ben Hernandez of Albuquerque and General John K. Davis of the U.S. Marine Corps in Washington, D.C.

V. Homecoming

One of the traditional programs conducted by the Alumni Association is the annual Homecoming celebration. This year Homecoming was held on October 13, and the theme was "The Spirit of UNM." Over 800 alumni and families participated in the annual Southwest Fiesta prior to the Homecoming game. The King and Queen were presented at halftime, and the Classes of 1934,

1959, and 1974 held reunions with 1000 alumni in attendance.

VI. Trailblazers

The Trailblazers are an alumni-sponsored student organization created to foster spirit, volunteerism, and service to alumni and the University. Forty students comprised this year's club with Andy Carter serving as president.

VII. Lettermen's Association

The Lettermen's Association operates under and is sanctioned by the Alumni Association. A fifteen-member board of directors oversees the operation of the Association's activities. The Alumni Director is an ex officio member of the board and staff support is provided to the Lettermen. This year's activities included the annual Homecoming cocktail reception and breakfast, the awarding of five post-eligibility scholarships to senior athletes for the purpose of completing their education, and the proposal for a Lettermen's room to be housed in Hodgin Hall. Over 200 Lettermen paid yearly dues of $25 in order to belong to the Association.

VIII. Annual Fund

The Annual Fund campaign raised $225,000 in pledges from alumni and friends of the University. The Alumni Association was involved with the organizing and implementation of this year's

promoted to Associate Director, also in January. On June 1 our part-time bookkeeper retired, and a new full-time bookkeeper was hired. One full-time data entry clerk was hired on June 1.

XI. Athletic Liaison

Over 1000 alumni and boosters participated in the 1984 pre-game parties held before the Lobo football games in Albuquerque, El Paso, Las Cruces, Waco, and Hawaii. The Los Alamos, Las Cruces, El Paso, NE Texas, and Colorado Springs chapters sponsored alumni athletic receptions honoring UNM's Athletic Director and several coaches.

XII. Student Recruitment

The Alumni Association works in cooperation with the Office of School Relations and the College Enrichment Program in an effort to recruit top students to UNM. This year alumni-hosted student receptions were held in Roswell, Los Alamos, Hobbs, Las Cruces, and Amarillo. Eighty-five alumni visited top Albuquerque area high school seniors in their homes as part of the home visit recruitment program. Over 150 top senior high school students and their parents were hosted by Albuquerque alumni at two receptions held in Hodgin Hall on the UNM campus. Alumni, faculty, and staff presented Pride of New Mexico pins to all of the top high school students that were visited by alumni or participated in the receptions.

phonothon in which 113 alumni volunteers participated and raised $58,971. The Alumni Association received a total of $48,000 from unrestricted monies given by alumni as part of the written agreement between the UNM Foundation and the UNM Alumni Association.

IX. Alumni Publications

The new alumni magazine, Mirage, was launched in December 1984, complete with a new name, design format, content, and look. The Alumni Association publishes the magazine four times a year, and it is distributed to over 55,000 alumni, faculty, and staff. The magazine is edited by the Public Affairs staff, and a publications committee comprised of alumni volunteers helps plan the content.

This year we launched a chapter newsletter in an attempt to better communicate with the 32 chapters nationwide. The newsletter will be sent on a quarterly basis.

X. Staff

From July 1 through December 31, Steve Ross, Associate Director, served as Acting Director. On January 1, 1985, Ed Waller joined the Association as the new Executive Director. A new administrative secretary position was approved in January. Also, one clerical specialist was promoted to administrative assistant in January. Assistant Director Charlene Chavez was

XIII. Legislative Relations

The Alumni Legislative Liaison Committee planned and hosted a luncheon in Santa Fe in January for the 30 legislators who are UNM alumni. President Farer addressed the group during lunch, and each legislator was presented with a framed watercolor of one of four UNM campus scenes. One hundred alumni and staff were on hand at the Alumni Association-hosted reception at the Stadium press box honoring all New Mexico legislators, who were then escorted to the Lobo basketball game at the Pit. Alumni representatives in seven New Mexico cities scheduled meetings and receptions for local legislators and President Farer in order to address concerns of higher education and UNM.

XIV. Tours Program

During the year the Association had over 200 alumni participate in five separate tours that were offered. The tours program offers alumni and their families an opportunity to see magnificent parts of our country and the world at affordable prices.

XV. Alumni Memorial Chapel

The Alumni Association oversees the scheduling of the Alumni Memorial Chapel. This year 200 weddings and recitals took place at the Chapel which is available to all alumni.

THE REPORT OF THE DEPARTMENT OF POLICE AND PARKING SERVICES JULY 1, 1984 - JUNE 30, 1985 BERRY D. COX, DIRECTOR

The mission of the Department of Police and Parking Services is encompassed by an overall primary responsibility for the protection of the citizenry who frequent and interface with the University through upholding the Constitution of the United States and its Amendments and all applicable laws and specific University regulations as promulgated by the Board of Regents.

In the areas of security, it can safely be said that the University of New Mexico ranks as being one of the safest campuses of any major university in the United States. In the area of violent crimes, as supported by the monthly report submitted to the central campus administration, it is notable that the University of New Mexcio campus has had no homicide in the history of the institution as far as can be determined. Sexual assaults are very infrequent and felonious assults are rare. Even the suicide rate at the University is extremely low. A reasonable evaluation of the stated and perceived mission of a law enforcement agency can be that of reported criminal activities. The following statistics represent reported major offenses for 1984-1985:

		Number of Reports	Value
1.	Homicides	0	
2.	Rape by force	0	
	a. Attempted	0	
	b. Indecent Exposure	12	
3.	Robbery	0	
4.	Assault		
	a. Aggravated	7	
	b. Simple	66	
5.	Burglary		
	a. Private	15	$ 8,845
	b. University	20	$17,664
6.	Larceny		
	a. Private	590	$118,324
	b. University	96	$ 92,438
7.	Motor Vehicle Theft	35	
8.	Narcotics	2	
9.	Arrests	114	

It is the director's opinion that the Department of Police and Parking Services is successful in carrying out its many tasks. It should be noted that since 1974 to the present in all of the many public events, such as hard rock concerts, major athletic activities, etc., control of crowds has never been lost and serious injury and property damage to public buildings, etc., has been minimal.

Guard Position Re-established

During fiscal year 1984-1985, the guard position was re-

established in the Fine Arts area because of numerous problems with persons who frequent Yale Park.

Fraternity and Sorority Rush Week

During fiscal year 1984-1985, central administration banned all alcoholic beverages during fraternity and sorority Rush Week because of increased security problems during that week, for example, vandalism, fights, injuries, etc.

Patrol Division

The following statistics reflect activity which the three patrol shifts were involved during 1984-1985:

Offense Reports	1,777
Arrests	114
Parking Citations	2,016
Moving Citations	324
Assists/Hospital	180
Assists/MHC	140
Escorts	1,885

Investigations Division:

The Detective Division, which is comprised of three detectives and supervised by Lt. Raymond, were assigned 350 cases. There were 15 arrests made; 75 cases were cleared administratively, and 100 cases were completed and closed. University of New Mexico property recovered totaled $15,104.00, other property recovered totaled $4,900. Grand total of

property recovered was $20,004.00. The Detective Division also fingerprinted 605 persons.

Industrial Security

The Defense Investigative Service conducted two security inspections during fiscal year 1984-1985 in which several minor discrepancies were noted during the inspections but were corrected during his visits.

The University of New Mexico has cleared 341 persons for access to Secret information. Twenty-two of these employees have been granted special access to Critical Nuclear Weapons Design Information or CNWDI. Four have been granted special access to NATO information. We are also the coordinating agency for the Department of Energy in ensuring that employees are processed for "Q" clearances.

Espionage cases during the past year has had a tremendous effect on the Defense Industrial Security Program. The DOD has issued a directive which requires all contractors to reduce their security clearances by ten percent. The Security Office has established a system for limiting security clearances to the minimum necessary to meet contractual performance. Employees whose clearance will be administratively terminated have been ensured that this action does not reflect

adversely on his/her integrity; new clearance will be processed when the need arises.

Ruth Bowen attended the Industrial Security Workshop in Denver, Colorado for one week in May 1985.

Outside Professional Activities

Berry Cox completed his 2nd year as Director of Region 7 of the International Association of Campus Law Enforcement Administrators.

Ruth Bowen was elected Vice-President of Luminaria Chapter of the American Business Women's Association.

Transitions

Positions reclassified: Ruth Bowen from Staff Assistant to Administrative Assistant. July Blair, Joe Griffenberg and Don Armstrong from Clerical Specialist positions reclassified to Communication Equipment Operators. Adelita Gurule was promoted from Office Manager to Patrol Officer. Stephen Lewis was promoted from Patrol Officer to Corporal. Larry Gallegos was promoted from Parking Enforcement Officer to Patrol Officer. Steve Garcia was promoted from Bus Driver to Patrol Officer.

Appointments

Christine Dahl
Joseph Garcia
Albert Rodriquez

Terry Coker
Arnold Gutierrez
John Foust
Tommy Sanchez
Carol Parry
Roy Jaramillo
Larry Nicholson
Ann Davis
Florence Chavez
Renee Mason

Separations

Edith Otero promoted and transferred to Cashier's Office
Larry Edmonson
Sandra Kimura
Larry Nicholson
Terry Coker promoted and transferred to Med. Invest. Ofc.
Cathryn Parker--Griego
Fred Radmann promoted and transferred to NMERI
Michael Funk

Training

The patrol officers within the Department of Police and Parking Services received in-service training in the following areas:

a. Interviews and interrogations
b. Use of deadly force
c. Effective human relations
   1) Neighborhood watch
   2) Beating the burglar
d. Intoxilyzer
e. Firing range
f. Industrial security
g. Report writing
h. Fingerprints

Dispatcher Training: Joe Griffenberg received dispatcher training at the New Mexico Law Enforcement Academy. Stu-

dent dispatcher Waterman received on-the-job training.

Basic Police School: Three patrol officers each received 425 hours of basic police training at the New Mexico Law Enforcement Academy.

Sixteen hours of NCIC training was provided by the State Police to Joe Griffenberg, Roy Brooks, Judy Blair and Don Armstrong.

Street Survival training was provided for Cpl Lewis and Officer Hendry.

Parking

As the administrator of Police and Parking Services, I find that the most frustrating and yet challenging responsibility facing my staff and me is that of parking. UNM paid parking is most easily envisioned as a limited commodity in extremely high demand. The reality of it is that the disparity between that supply and demand increases steadily, mostly due to the major capital outlay construction projects which naturally require the conversion of parking lands to building sites. As an example, in the parking year 1984-1985, 202 usable parking spaces were lost due to the expansion of Johnson Gymnasium. Concurrently, the Science/Engineering Library Complex necessitated the loss of 140 additional spaces. Those construction sites are located within the two parking zones

most in demand on the central campus.

This academic year, the University of New Mexico registered 24,309 students for fall semester 1984. It is my understanding that, historically, our matriculation rate for the past five years has increased by approximately two percent annually. Although contrary to national trends, it is expected that a similar growth pattern will continue at the University of New Mexico for future years. Obviously, increasing student enrollment creates greater teaching loads for existing faculty members and/or the employment of additional teaching professionals. The miltifaceted problems associated with this institutional growth include without doubt the reality of effectively meeting the parking and transportation demands of a traditionally mobile academic society.

The aforementioned observations only begin to portray the magnitude of demand on academic facilities at the University of New Mexico which directly impact upon parking behavior at this institution. Thus, the purposes of this report are:

1. To describe the paid parking system
2. To identify special parking demands
3. To present an overview of evening parking
4. To demonstrate the interface of the free parking system on the UNM paid parking and UNM Hospital patient/staff parking arrangements

Paid Parking: As of this writing, the paid parking system includes approximately 4,600 spaces located on the main and north campuses. Please note that the Athletic Complex parking facilities are not included in the paid parking system and are not administered by the office of Police and Parking Services. Permits to park on the controlled surface parking facilities are sold on a first-come, first-served basis to faculty and staff members on a recurrent annual basis.

Applications received after May 31 are not immediately processed, but placed on a waiting list by zone preference. The cut-off date for processing of faculty and staff applications is necessary in order to determine student parking permit sales limitations employing a pragmatically determined over-sale factor. As the parking year progresses (August 20 to August 20 of the following year for faculty/staff; August 20 to May 20 for student patrons), employees who are on zone waiting lists are notified of space availabilities and additional permit sales may be made.

Student applications are mailed to all students and known potential students in the 2nd week of July preceding the upcoming academic year. Applications are accepted only through the United States Postal Service and permits are issued upon the first received priority basis until max-

imum over-sale limits are achieved. Those students whose applications are rejected due to space shortages are so advised by return mail. Furthermore, they are provided detailed information on the free parking and free bus system (attachment 1). No waiting list is maintained for student applications due to the enormous number of student applications which will be rejected.

It should be noted that student dormitory residents are excluded from the date of parking application receipt priority system and are guaranteed parking if application is submitted. Dormitory students are also required to pay $36.00 per academic year for the initial semester of dormitory residency. However, if continued residency extends to the 2nd semester, $18.00 or one-half of the initial amount paid is refunded. Parking is free thereafter if continuous residency status in the dormitories is maintained. The following chart quantifies current parking permit data as of March, 1985, for parking year 1984-1985:

1984-1985 FISCAL YEAR

ZONE	ACTUAL SPACES	LIMIT	STAFF/ FACULTY	STUDENT	ZONE TOTAL	WAIT LIST	PERCENT OVERSELL	OVER/UNDER LIMIT	AVAILABLE TO SELL
B	462	650	333	324	657	43	42%	+7	0
C	405	604	208	353	561	53	39%	-43	43
D	373	594	20	547	567	2	52%	-27	27
E	245	296	234	5	239	0		-57	57
F	466	512	443	25	468	70	1%	-44	44
G	1012	1400	250	1544	1794	44	77%	+394	0
J	505	600	227	601	828	18	64%	+228	0
L	193	193	89	127	216	1	12%	+23	0
M	989	1500	917	508	1425	0	44%	-75	75
TOTAL	4650	6349	2721	4034	6755	231			246

AS OF MARCH 6, 1985

Clearly, the 4,600 paid parking spaces comprising the paid parking system are significally deficient for meeting the daily parking need of our approximately 31,000 students, faculty, and staff!

Special Parking Demands

The data so far presented is representative of the people directly related to this institution's academic processes. However, the use of our parking facilities is not realistically viewed if one does not include the casual visitor and the randomly scheduled influx of people who attend the University of New Mexico for special events, conferences, seminars, and work shops. Typically, these special activities are scheduled on days and during hours in which the parking regulations are totally in effect, i.e., during academic periods in which parking permits are required; therefore, a very productive coordination process is necessary between the University of New Mexico hosting agency and Police and Parking Services. In addition to the 6,765 faculty/staff and student permits sold for the current parking year, 7,541 temporary daily or short-term visitor permits have been sold. It is doubtful that a reliable number of casual visitors can be derived from visitor permit sales, but we can reasonably conclude based on maximum daily use of our 509 parking meters by non-

permit bearing vehicles and non-specific observations that the University of New Mexico unofficially may host at least 1,000 visitors daily.

During calendar year 1984, 71 special events were hosted on campus with a predicted total guest attendance of 17,390. In most cases, these individuals drove private vehicles to the University of New Mexico and required special parking coordination in order not to negate their experience as guests of their host organizations within this institution. Attachment 2 provides a detailled chronologically arranged list of the numerous and very diverse activities attracting that collectively large group of people. With the exception of the vendor permits which currently number 262 and are sold to firms which have contracted negotiations with the University, we have generally identified and quantified those activities directly contributing to the routine traffic flow and parking characteristics in the paid parking facilities of the central, medical and law schools. The hospital has not been included, as hospital facilities are not included in the UNM paid system.

Overview of Night Parking

When defining night or evening parking, it is important to establish the fact that the paid parking system is in

effect Monday through Friday, from 7:30 a.m. until 4:30 p.m. After 4:30 p.m., all parking is free and the only regulations applying to parking behavior are those which relate to public safety and provide reasonable mobility for handicapped persons.

The night parking problem is principally located on the main campus and exists, for the most part, between 5:00 p.m. and 9:00 p.m., Monday through Thursday. The influx of cars are those of students and faculty members attending both credit and non-credit Continuing Education classes. Information supplied by the Office of Admissions and Records indicates that approximately 3,987 students are attending credit classes which begin after 3:30 p.m. during academic year 1984-1985. The College of Continuing Education provided data indicating that they have an additional 3,450 non-credit students attending night classes during this academic period.

Earlier in this paper, I mentioned the large and very significant loss of parking spaces already realized in two areas of the core academic campus. Prior to those losses, the night parking problem was serious. Presently, with even fewer available spaces for the 7,437 students attending evening classes, the parking problem is basically unmanageable for our limited force of police

officers and results in serious recurrent public safety hazard.

Students typically attempt to park their vehicles as closely as possible to their destinations during hours of darkness. Female students often advise that they are afraid to park far from their classes due to possible attack. The chance of receiving a parking citation is preferred to the risk of being assaulted.

Perhaps the most congested parking area for evening classes is located in the area of Mitchell Hall, Ortega Hall, Carlisle Gymnasium, and the Bookstore. There are approximately 30 legal parking spaces in the vicinity, and the majority of same are designated "Handicapped Parking". However, when night classes are in session, cars many time outnumbering the legal spaces are parked in this area. Those vehicles are illegally parked on landscaped lands, at yellow "No Parking Anytime" curbs, on every sidewalk and across driveways, as well as in any available surface area on which a vehicle might conceivably be parked.

Vehicular access to this area is the intersection of Yale and Redondo; thus, when the area is impacted with illegally parked vehicles, motorists must negotiate U-turns to exit. Safely negotiating such a turn is extremely difficult

because vehicles may be parked on both sides of Yale Avenue, when only one side of the street allows legal parking; thus, vehicle movement on Yale Avenue becomes unduly hazardous for some pedestrians and motorists. At least one handicapped person has been severely injured as the result of inability to locate unoccupied handicapped parking. Although the police officers make every available effort to provide a reasonable pro-active control of the handicapped spaces, and reactive issuance of parking citations to vehicles usurping the handicapped zones, very little tangible relief is realized.

The parking areas of Bandelier Hall, Zimmerman Library, Mesa Vista/Student Services, and Fine Arts are also over-used with vehicles parked outside of defined parking spaces and blocking moving vehicle access.

To complete the portrait of evening parking on the central campus, it is important to consider the large influx of people who attend fine arts events in the Fine Arts Center during the hours that evening classes are in session.

During fall and spring semesters of academic year of 1984-85, Rodey Theater conducted 46 performances, attended by 113 persons per event, totaling 5,179 (as of

March 7, 1985). Keller Hall conducted 26 performances, attended by approximately 123 persons per event, totaling 3,193.

Although the above attendance data is not staggering for these two small theaters, their combined annual attendance of 8,372 contributes significantly to the parking requirements of the Fine Arts Center and the existing evening parking problems of the main campus.

Also located within the Fine Arts Center is Popejoy Hall which attracts very large numbers of attendees to the main campus. During fiscal year 1984-85 to date, 101 shows have been presented with an average of 1,465 patrons in attendance per event. The total number is 147,900, excluding an additional 59 rehearsals attracting 273 members of casts and crews per rehearsal, or cumulatively 16,107.

It should now be very clear that parking problems at the University of New Mexico are not unique nor limited to those periods when the paid parking requirement is in effect. The evening problem is, in fact, perhaps more centralized to the core areas of the central campus and not only represents dilemmas for academically assembled persons, but includes parking problems for attendees of the fine arts facilities, the libraries, athletic

facilities, etc. It is doubtful that any other public institution in metropolitan Albuquerque regularly is characterized by greater human dynamics nor diversion of interests.

To quantify the vehicles which contribute to the parking situation as already described, it is believed reasonable to speculate that vehicle ridership among the driving student population is approximately 1.5 students per vehicle. Fine arts patrons are believed to average approximately 2.5 persons per vehicle. Applying these speculations to the combined number of students, patrons, etc., expected to be on campus during the week after 3:30 p.m. one finds those figures representing 2,028 vehicles. Of course, it is doubtful that all three theatres in Fine Arts would be in production simultaneously, nor all classes in session at the same time. However, including Student Union activities, Hodgin Hall, and dormitory resident parking needs for a minimum of 792 vehicles, etc., 2,028 vehicles may reasonably be parked on the main campus during any typical evening.

The Free Parking System

The free parking lands are located on the north campus (north of Lomas Blvd.) and total 1,775 spaces. Includ-

ed are three surface lots, only one of which is paved (632 spaces), well lighted, and equipped with controlled access equipment.

Although the lot was originally designed as a paid lot with controlled entrance and exit capability, it has historically been maintained as a free parking facility. The free areas are primarily utilized by student commuters; however, it is convenient and used by an undetermined number of faculty and staff members and by employees and patients of UNM Hospital.

Prior to academic year 1983-84, the free parking lands, then improved, were inadequate; therefore an additional 450 dirt-surfaced spaces were developed on vacant University lands, immediately north of KNME television station. The present total of 1,775 includes those additional spaces. Currently, the free lots are approximately 85 percent utilized, but would undoubtedly exceed 100 percent daily utilization if illegal parking behavior could be significantly minimized.

Illegal parking characteristics in the free lands are characterized most usually by blocking activities, and increase significantly as the walking distance to the central academic campus decreases. On the central campus, of course, failure to display a parking permit is the

most common violation.

The increase in illegal parking behavior with diminishing distance to the central campus results in significant enforcement dilemma. It has been observed that as enforcement activities increase in the free areas, illegal parking behavior increases in the permit-controlled lands of the central campus. Evidently, citation recipients reason that if they are receiving $5.00 citations for remote illegal parking, it is worth the chance to park centrally and close to classes and perhaps receive a citation costing no more in fines than those received in the more remote parking areas. In light of this statement, the reader should not infer that illegal parking is ignored in the free lots. Enforcement actions are in evidence; however, citations are usually issued only to vehicles which constitute complete blocking or those which represent hazardous mobility for moving vehicles and pedestrians, and/or to vehicles parked within and on landscape planters, etc.

In essence, the free lots have been maintained to provide a functionally attractive alternative for a large commuter population.

Two 40-passenger school buses are provided without charge to transport persons from the most remote free

parking area to the central campus, specifically, the intersection of Yale and Roma. The units are in operation from 7:15 a.m. until 6:15 p.m., Monday through Friday, during the spring and fall semesters. The bus service is not provided during the summer academic periods as parking on the central campus at that time is optimal.

Statistics for shuttle bus ridership for academic year 1983-84 indicate that 216,556 persons were transported from the free parking areas to the central campus between late August of 1983 and late May 1984. September had the greatest total of 33,373 while May resulted in the smallest ridership (6,391). The average ridership for the nine academic months is 24,061 persons. Obviously, these figures are influenced by such factors as individual student orientation, weather conditions, and annual academic scheduling of events, etc.

In addition to the above data, UNM Hospital sources indicate that 352 persons are transported via a hospital ten-passenger mobile unit from the free lots to the hospital. Based on a five-day week, this could represent 91,520 transported persons. However, specific information from the hospital is ill-defined, and in this writer's opinion that total appears to be inordinately high.

UNM Hospital (free)

The above information has specifically quantified the free parking provisions provided and maintained by the University of New Mexico. The University of New Mexico, as an institution, has provided those lands for free use by anyone involved with the many administrative units of the University, including the hospital.

Since the UNM Hospital also provides free parking for patients, visitors, and staff, it is necessary to quantify parking capabilities therein, and to understand the current distribution of the facilities as pertains to patron/staff definitions.

The number of spaces in and around the UNM Hospital and under control of UNM Hospital Security is approximately 813, located in six parking lots of unequal size.

Lot #1, south of the hospital:

8	handicapped
127	patient
6	emergency patients
141	Total

Lot #2, southwest of the hospital:

13	medical consultants
16	patient & visitors
29	Total

Lot #3, west of hospital:

4	handicapped
232	patient & visitor
236	Total

Please note that 393 spaces are specifically available

for patients and visitors combined, while only 133 spaces (lot #1) are reserved specifically for patient use.

Lot #4, south of Dental Programs and State Health Laboratory:	251
Lot #5, north of the hospital:	118
Lot #6, northeast of the hospital:	38
	407 Total

Lots #4,5, and 6 are specifically designated as UNM Hospital employee parking. To park therein a vehicle must display a UNM Hospital parking permit which is issued free of charge to the employee. Incidentally, UNM parking permits are not honored. Furthermore, it is this writer's understanding that those employees on regular University payrolls whose work stations are within the hospital are not permitted to park in the hospital employee lots. Their alternatives are to buy UNM parking permits, to park in the free lands, or to examine other transportation or parking arrangements. The hospital has approximately 1,122 full-time employees and 621 part-time or occasional employees. Approximately 361 of these employees are assigned duties on the evening and night shifts. The actual number of employees who individually operate and park motor vehicles on hospital lands is unknown as there is apparently

no limit on the hospital parking permits issued.

Summary and Recommendations

The paid parking system as exists at present is intended to be a self-supporting auxilliary service. In fiscal year 1983-84, the Parking Services total budget was $307,400.00. That projected amount was exceeded through expected revenues based on permit sales and meter fees, with a credit or profit of $24,393.77 remaining at closure of the budgetary period. Parking Services is therefore realistically achieving the goal of self-support, but a very significant increase in annual revenues for the service is possible. Presently, parking citations which are issued by the Department of Police and Parking Services are answerable in the Metropolitan Court. In a statutorily based arrangement between the Regents of the University of New Mexico and the Metropolitan Court, fine monies are collected and retained by the state-controlled court and are not shared with the University. In actuality, the Regents can establish monetary fines for violations of the University's parking and traffic regulations and also establish an administrative fee. According to the statute, the administrative fee would be credited to the University.

Another alternative to the present system of citation

answerability is the possiblitiy of the University assuming total responsibility for the issuance and due process right of a hearing and the collection of all fees within the framework of the University. Such a plan would generate monies far in excess of those now generated which could offset the operating costs of the free parking areas and the free shuttle buses, etc. It is noteworthy to observe that in that budgetary period, repairs and maintenance of the shuttle buses were $3,500.00 and gas to operate the units totaled $6,000.00 That $9,500.00, of course, does not include purchase prices of the units or driver salaries, etc. The following chart shows the total number of citations issued in calendar years 1979 through 1984, with possible revenues based on $2.00 and $5.00 citations.

Year	Total Issued	$2.00 Citations	$5.00 Citations	Possible Revenue
1979	76,384	28,740	46,091	$287,935.00
1980	64,285	22,883	39.408	$242,806.00
1981	70,736	29,296	39,978	$258,482.00
1982	65,230	28,284	35,022	$231,678.00
1983	78,206	22,784	53,101	$311,173.00
1984	59,400	17,578	39,608	$233,196.00
Average	69,040	24,928	42,201	$260,862.00

In the event that the aforementioned concept is adopted by the University, it is this writer's desire that the issuance of citations and the administrative functions be computerized, utilizing a system which is relatively new but already is successfully in use at a number of universities, one of which is Southern Methodist University.

Our existing permit purchase rate should probably be examined and/or adjusted. Student permits are sold at $36.00 per academic year, and as mentioned earlier, are provided virtually free of charge after the second semester for students in continuous dormitory residency. Faculty/staff permits are sold on a sliding scale based on annual salary, ranging from $52.00 to $96.00 per twelve month period. This fee structure was established in 1970 and has been adjusted, or increased, only once in 1976. I recommend that consideration be given to establishing a revised fee structure based on central campus proximity and discontinuing the salary structure concept.

It is recommended that the free parking system be continued. Considering the fact that 1,412 students who made formal application for parking permits for this academic year were not sold permits due to space inavailability and the enormous daily ridership of the shuttle from the free parking lots to the central campus, it seems impera-

tive that the service be continued. The 3,192 parking spaces on the central campus are obviously of an inadequate number to serve over 32,000 possible users. Even with a strong endorsement of continuing the free parking arrangements, recommendation is made that a nominal fee be established to board the shuttle buses, thus, increasing the revenue base. Ridership figures for fiscal year 1983-84 applied at 20¢ per day can provide an additional $43,311.00 annually.

An important point of fact not previously voiced is that students, faculty and staff members who have purchased permits to controlled lands are in effect paying for all maintenance of the free lots, bus services, and related expenses. By establishing a fee directly payable by shuttle-bus users, a perceived inequity to the paying clients of the parking system might be mitigated.

The evening parking pattern on the central campus as earlier described is profound and not easily manageable with current staffing limitations in the Department of Police and Parking Services. Presently, we have 3,509 legal parking spaces (including metered space) on the central campus which are more than adequate for evening parking needs. With increased staffing and extended hours of applicability for paid permit parking, effective pro-

active controls can be employed; thus, dispersing parking patterns for increased safety and effective utilization of central campus parking facilities.

The new parking structure of four levels containing 898 parking stalls will be a welcomed addition to the University's parking system. Two hundred seventeen spaces will initially be expended for construction of the edifice in a lot now containing 550 parking spaces. A net gain of 681 spaces will be realized which is very significant at this time due to our present needs on the main campus, and a projected permanent reduction of main campus surface parking spaces due to construction projects to be completed in approximately the same time frame as the parking structure. Specifically, the projects are as follows:

Anderson School & Social Sciences	187
Health, Physical Educ. and Rec.	72
Electrical Engineering	48
Yale Avenue Landscaping	26
	333

It is my understanding that UNM Hospital may possibly have exclusive user rights to 382 spaces located on the top two levels of the parking structure. Unquestionably, the hospital has a definite parking need in order to serve the greater Albuquerque Metropolitan area and the State of New Mexico. However, a functional arrange-

ment of this magnitude for space utilization in the structure would yield a net gain in the structure for the University of only 299 spaces. Considering the central campus space reductions as specified above, the University will actually realize 34 fewer spaces than presently exist. These figures exclude possible expansion of parking facilities into the 1700 and 1800 blocks of Roma through the razing of existing buildings thereon.

It is my suggestion that a sharing agreement between the hospital and the University reference space utilization in the structure be considered which will provide significant parking relief for the hospital and all other components of the University system. Rather than reserving a specified number of spaces in any particular position of the building for hospital employee use, it may be preferred to allow hospital personnel individually to purchase UNM parking permits on a space-available basis as is permitted for all other University employees. (Please refer to hospital parking in the review of the Free Parking System.) In this manner, greater utilization of the structure can be realized through an over-sale factor, as well as the establishment of a functional revenue base to pay the construc-

tion and ongoing maintenance costs for the facility. In closing, it must be realized that the next parking year at U.N.M. will be characterized by parking space shortages on the central campus profoundly more critical than ever before! During the construction phases of the parking structure and the Anderson School/ Social Sciences expansions, 575 spaces will be removed. The Zimmerman Library, Computing Center, Student Services Building, etc., are among those entities which will be negatively affected, and the public outcry of indignation will become a familiar theme. Therefore, it is imperative that the relocation of administrative and academic entities from buildings in the 1700 and 1800 blocks of Roma and Las Lomas be given top priority enabling buildings to be removed and additional parking spaces developed. Unfortunately, only three buildings in the area will be removable by mid-July, 1985, with a possible yield of 75 to 90 spaces. If urgent and immediate administrative decisions are not addressed regarding the immediate removal of a significantly greater number of buildings, the University public will indeed be greatly inconvenienced and the University of New Mexico public image may suffer.

ATTACHMENT # 1

THE UNIVERSITY OF NEW MEXICO
ALBUQUERQUE, NEW MEXICO 87131

TO: U.N.M. Student Parking Applicant

FROM: Police and Parking Services

CH #14

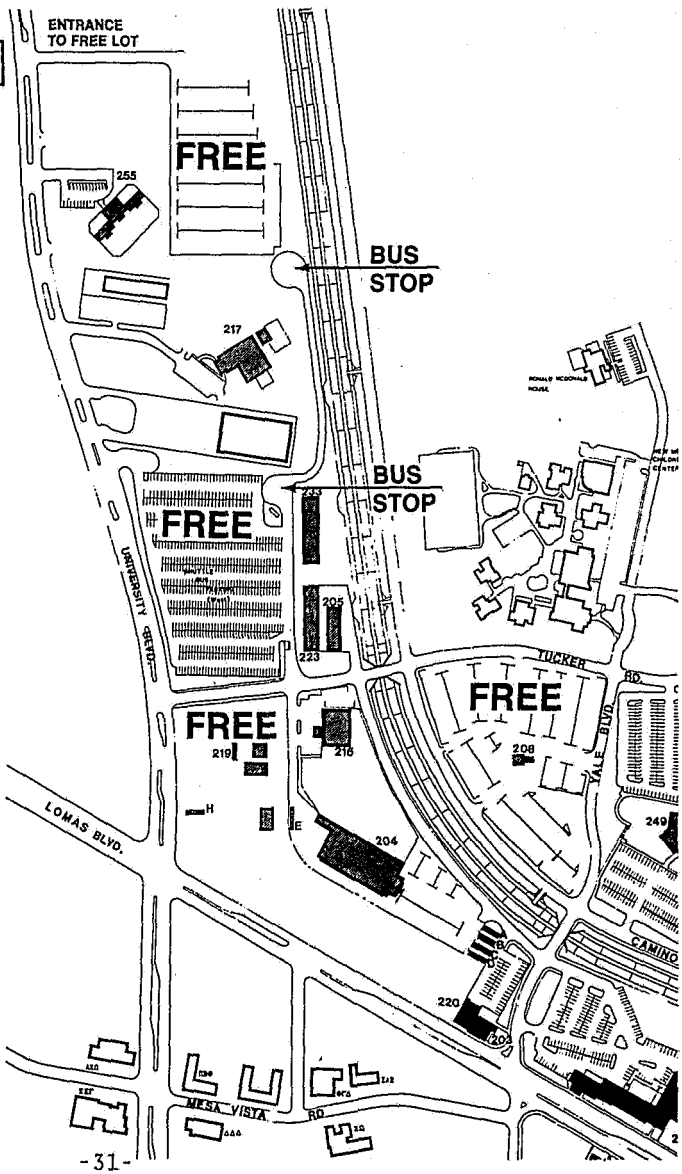
We are sorry that we cannot presently fulfill your parking application as requested.

As an alternative we suggest that you utilize the designated **FREE PARKING** on the north campus which is facilitated by a **FREE SHUTTLE BUS SERVICE.** The shuttle is operated from 7:15 A.M. until 6:15 P.M., Monday through Friday during the academic year. We also provide an Escort Service for evening and night-time security protection.

The attached map indicates the free parking lots on North Campus, with additional free parking available North of KNME Ch. #5, with the entrance on University, Blvd. East of Ch. #14.

If you have any questions please contact Police and Parking Services, 1712 Las Lomas NE, 277-3729.

Thank you for your understanding and cooperation.



POLICE & PARKING SERVICES TELEPHONE 505: 277-3729

SPECIAL EVENTS, CONFERENCES, SEMINARS, AND WORKSHOPS REQUIRING SPECIAL PARKING

January 1984		
5-9 Jan. 1984	Dental State Board Exams	75 Persons
9-11 Jan. 1984	Transportation Symposium and Conference	225 Persons
10 Jan. 1984	Dedication of New BCMHC Addition	100 Persons
10-12 Jan. 1984	Wayne Eubank Invitational Tournament	75 Persons
12-14 Jan. 1984	Southwest H.S. Theatre Festival	1,070 Persons
	Total	1,545
February 1984		
15 Feb. 1984	Medical Hearing(Sen.Dominici)	200 Persons
16 Feb. 1984	Maternity & Infant Care Project Conference	40 Persons
16-18 Feb. 1984	Personal Computer Symposium	60 Persons
17-18 Feb. 1984	State H.S. Swimming and Diving Meet	350 Persons
22 Feb. 1984	Community Tour & Visit to UNM Medical Center	125 Persons
24-25 Feb. 1984	Engineer Open House	1,500 Persons
	Total	2,275
March 1984		
2 Mar. 1984	CPC Citizens Advisory Board	25 Persons
8 Mar. 1984	Dedication of Thompson Gallery	50 Persons
8 Mar. 1984	Invitational Band Clinic,NM Union	200 Persons
9 Mar. 1984	2nd Annual Computer Users in Ed. Conference	165 Persons
12 Mar. 1984	Hope Christian School Walk-A-Thon	500 Persons
15-16 Mar. 1984	Northwest N.M. Regional Science Fair	1,500 Persons
	Total	2,440
April 1984		
3 Apr. 1984	Matinee (Rodey Theatre) "Wiley & The Hairy Man"	17 Persons
5 Apr. 1984	Biologues Exchange Seminar	100 Persons
5 Apr. 1984	Matinee (Rodey Theatre) "Wiley & The Hairy Man"	23 Persons
5 Apr. 1984	Annual Educators Conference	150 Persons
6 Apr. 1984	Dental Programs Workshop	125 Persons
10 Apr. 1984	Law Library Workshop	50 Persons
12-13 Apr. 1984	National Forensic League Tournament	100 Persons
18 Apr. 1984	National Forensic League Student Congress	100 Persons
30 Apr. 1984	Moot Court, Law School	100 Persons
	Total	765

May 1984			
4 May 1984	R.O. Anderson Distinguished Lecturer	150	Persons
4 May 1984	Vietnam Veterans Leadership Pgm.	250	Persons
7 May 1984	Medical Center Special Event	30	Persons
18 May 1984	HPER Seminar, SUB	50	Persons
24 May 1984	Volunteer Recognition Pgm. MHC	100	Persons
25 May 1984	Special Olympics	1,000	Persons
29-30 May 1984	Student Orientation	200	Persons
29-30-31 May 1984	Athletic Trainers & Coaches Conf.	100	Persons
	Total	1,880	
June 1984			
6-7 Jun 1984	Student Orientation	50	Persons
8 Jun 1984	Dept. of Orthopaedics Seminar	125	Persons
13-15 Jun 1984	N.M. Board of Dentistry Exams	150	Persons
13 Jun 1984	Student Orientation	50	Persons
14-15 Jun 1984	Student Orientation	50	Persons
18 Jun 1984	Law School Exams	100	Persons
18 Jun 1984	Cheerleaders Workshop	250	Persons
25-26 Jun 84	New Student Orientation	50	Persons
	Total	825	
July 1984			
10-11 Jul 1984	New Student Orientation	50	Persons
16-20 Jul 1984	Annual Musical Experience	1,000	Persons
18-19 Jul 1984	New Student Orientation	50	Persons
16-20 Jul 1984	Basketball Camp	150	Persons
25 Jul 1984	Sundance Aquatic Meet	1,000	Persons
26-27 Jul 1984	New Student Orientation	50	Persons
26-29 Jul 1984	Alumni Summer Family Camp	1,200	Persons
30 Jul 1984	Meteoritical Society Meeting	150	Persons
30-31 Jul 1984	Musical Experience(Vocal Camp)	1,000	Persons
	Total	4,650	
August 1984			
13 Aug. 1984	Nutrition Workshop	75	Persons
15-17 Aug 1984	New Student Orientation	50	Persons
17 Aug. 1984	CPC Quarterly Advisory Board Mtg.	75	Persons
	Total	200	
September 1984			
21 Sep.1984	U.S. Dept. of Housing Development	500	Persons
25 Sep 1984	10th Annual Emeriti Party (President's Home)	190	Persons
	Total	690	

October 1984			
5 Oct 1984	Hispanic Engr. Organization Fair	150	Persons
11 Oct 1984	Biologs Seminar	75	Persons
19 Oct 1984	Public Meeting Law School	150	Persons
24 Oct. 1984	Dedication of Student Svs. Bldg.	25	Persons
	Total	400	
November 1984			
7 Nov 1984	Funeral Services (Alumni Chapel)	100	Persons
9 Nov 1984	N.M. V.A.X. Users Group Conf.	150	Persons
29 Nov 1984	Annual Arts & Crafts Fair	1,000	Persons
	Total	1,250	
December 1984			
3 Dec 1984	Press Reception Scholes Hall	25	Persons
5 Dec 1984	Dance Class FAC	75	Persons
6 Dec 1984	Biologs Seminar	100	Persons
14 Dec 1984	Retirement Recognition Ceremony,MHC	60	Persons
18 Dec 1984	Albuq. Area Hospital Luncheon,MHC	70	Persons
19 Dec 1984	Legislative Open House, MHC	45	Persons
20 Dec 1984	Senior Citizens Christmas Party,SUB	65	Persons
20 Dec.1984	Luncheon Meeting for Volunteers, Maxwell	50	Persons
	Total	490	Persons
January 1985			
2-6 Jan 1985	N.M. Board of Dentistry Exams	75	Persons
2-3 Jan 1985	Invitational Debate Tournament	50	Persons
7-9 Jan 1985	Symposium on Pavement Management Systems	200	Persons
10 Jan 1985	Cancer Ctr. Advisory Board Meeting	50	Persons
10-12 Jan 1985	N.M. Educators(Music) Conference	250	Persons
10 Jan 1985	New Student Orientation	50	Persons
7-11 Jan 1985	Southwest H.S. Theatre Festival	1,000	Persons
20 Jan 1985	Board of Directors Meeting(Hodgin)	50	Persons
23-25 Jan.85	Health & Environment Clinical Workshop	150	Persons
24-25 Jan.85	Council on Career Development for Minorities	150	Persons
24 Jan. 1985	Alumni Training Session, Hodgin Hall	15	Persons
	Total	2,040	
February 1985			
7 Feb 1985	Biologs Seminar	75	Persons
8 Feb 1985	Board of Directors Luncheon,Hodgin	20	Persons
13 Feb 1985	Board of Trustees Mtg.,R.O. Anderson	75	Persons
15-16 Feb.85	2nd Annual UNM Computer Fair	150	Persons
21 Feb. 1985	Car Crash Pep Rally,E. Carlisle Gym	100	Persons
21 Feb 1985	APS Teachers and Administrators Mtg.	13	Persons
22 Feb 1985	State High School Swimming Meet	350	Persons
22 Feb 1985	College of Engr. Open House	1500-1800	Persons
22 Feb 1985	State Qualifying Debate Tourna.	80	Persons

Afro-American Student Services

1984-1985

ANNUAL REPORT

This year's Annual Report includes a review of our progress over the last five years. We hope that this information will be useful to the process of review and evaluation that President Farer announced earlier this year. This document not only is a review, but contains a narrative outline of our future development plans. We will be submitting more detailed information in the near future.

Special thanks to William T. (Bill) Smith and Yvonne L. Malloy, who make hard work fun.

Division of Afro-American Student Services
Period Covered: July 1, 1984 - June 30, 1985
Submitted by: Johanna "Juba" Clayton, Director

CENTER BACKGROUND AND RATIONALE

I was appointed as Director of Afro-American Student Services in October, 1980. At that time, Student Services were administered through the Afro-American Studies Program. My appointment marked the beginning of the Afro-American Center Division of Student Services. The Center had been embroiled in an intense period of struggle and conflict with the University just prior to my appointment. The struggle and conflict created a climate of distrust and elimination of campus and community credibility in the Center. With the responsibility for developing and managing two programs: the Afro-American Center Student Services and the Summer After School Academy, I was faced with the tasks of rebuilding trust and confidence, on campus and in the community; developing a service support system for Black students; building a new faculty, curriculum and administrative structure for the After School Academy program; and rebuilding the faith and confidence of Black students in the Center as a place that held their interests as primary. This had to be done with a very minimal operating budget. Our mission was to develop a comprehensive effort that would impact positively in the areas of Black student retention and graduation, recruitment, and establish stronger relations between Black alumni and the University.

The recruitment effort at that time was chiefly organized around coordinated visits with the Office of School Relations to various high schools in the state and follow-up on the visits. This was essentially due to budget limitations. Later, we redesigned the After School Academy program to act as our chief local recruiting model, about which more will be mentioned later in the report.

The Center's retention functions were defined as:

1. To provide any assistance which would keep Black students in school for the duration of their school program, and,
2. To provide an environment conducive to making their experience at UNM as academically and culturally rewarding as possible.

Pursuant to these goals, three specific problem areas were identified as a result of surveys and interviews conducted to determine student service needs:

1. Lack of Black faculty and professional staff,
2. Social and cultural isolation, and,
3. Lack of cultural, and/or social backgrounds that included the University experience.

These past five years have been a period of developing strategies and programmatic solutions to these unique difficulties encountered by Black students seeking to finish their education at UNM.

The Center, having very limited resources, has had to rely on three principle strategies in addressing the identified problem areas (see program rationale):

1. Interfacing with other University departments and divisions,
2. Developing community relations and resources, and,
3. Developing national contacts and resources.

Elements of these strategies were utilized in programmatic responses to each of the identified problem areas. The problem areas were then redefined into specific objectives and action steps.

A. To increase the number of University Black faculty and professional staff:

1. Establish the recognition of the need for more Black faculty and staff.
2. Increase the resume pool of Black academics and professionals.
3. Develop a reliable network of contacts and recruitment sources.
4. Act as liaison between Black professionals and University in notification of job openings and professional availability.
5. Establish and strengthen available support programs for Black professional employees of the University.

The results of following these action steps included:

a. Hiring of a minority program director of UNM Women's Studies program.
b. Hiring of a minority director of Afro-American Studies program.
c. Hiring of a minority dean of College of Arts and Sciences.
d. Establishment of a minor in Afro-American Studies which increased the number of Black faculty from one part-time instructor to two part-time instructors.
e. Established the Minority and Women Director's Coalition.

These contributions reflect noticeable gains in Black employment at the University. The University is now aware of the need for more than token representation of Black academic and professional staff. That awareness must now be enlarged to include an understanding of the University's responsibility to take a leadership role in promoting hiring practices that facilitate the fullest possible academic development of all students, from all cultural and ethnic groups.

B. To end the paralyzing effects of cultural and social isolation:

1. Create social and academic forums for Black students to meet each other and Black faculty and staff.
2. Establish contact with incoming students as soon as possible.
3. Establish a manual that lists community resources and support organizations.
4. Develop on-campus support groups.
5. Provide access to Black professionals from both the local and the national Black community.

The results of following these action steps included:

a. Established an annual open house that included all campus Black student organizations, fraternities and sororities, local community organizations, and Black faculty and staff.
b. Developed annual mailings to incoming students inviting them to use the Center and listing its services.
c. Published Black Student Survival Guide, a manual listing University and community resources and organizations covering a wide range of Black student needs.
d. Established a career support group and system to aid Black students pursuing careers in Law, Medicine, and Engineering.
e. Established a Black women's support group.
f. Sponsored special activities for athletes covering the unique problems of Black student athletes. These included discussion groups, talks by professional and semi-professional athletes.
g. Held and co-sponsored monthly pot-luck lunches.
h. Co-sponsored noon lecture series given by faculty and students on topics of interest to the University's Black community.
i. Acted as advisor and sponsor of Black Student Organization.
j. Celebrated cultural holidays and events.

These programs have resulted in a growing positive sense of community and identity among both students and faculty.

C. To reduce the negative and confusing effects of being a first generation student:

1. Familiarize other University departments of the special needs of these students.

2. Establish contacts with Black professionals who could serve as role models and mentors.
3. Help prepare and familiarize local University-bound students for the college experience.
4. Utilize local media (radio and T.V.) to inform and appraise the community of the Center's activities.

Many of the difficulties Black students face stem from the fact that for a large percentage of them, they are the first of their family to attend college. Not only that, but their social and cultural background has little in it that is like the professional community that identifies a University campus. Helping these students identify their needs, acting as liaison for them, and introducing them to the support services has been a major part of developing a service delivery system that meets these needs.

In addition to these activities, special attention must be called to ex-prisoners who are students. Their needs are unique, and the Center acts as a liaison between parole officers, other prison officials, the University, and the ex-prisoners, along with providing special counseling.

At the same time, I act as ombudsman, liaison, and advocate for Black students with the other on-campus departments, including: the Financial Aid office, Dean of Students office, various academic departments, and the Provost office.

Our prime focus in these interactions was to create a context where the students could act to resolve their own difficulties positively. We have had solid success in this effort. In the past five years, we have established a large measure of the trust and credibility that was lost, as evidenced in our very

productive relationships with the Education and Computer Engineering Departments (details in After School Academy report). Despite the productive and positive nature of these kinds of developments, it is a slow process and students' difficulties are constant. In a time when the political and social climate is retrenching in the areas of expenditures for educational programming, especially for minorities, we have been faced with the task of identifying new strategies to help Black students enter the University and successfully complete their studies.

AFRO-AMERICAN CENTER ACTIVITIES REPORT

This has been a year of marked progress in the development of all of our programming efforts. Both the Division of Student Services and the After School Academy were expanded this year. Our efforts on-campus and off-campus have created a dependable student service delivery system. We have expanded our level of cultural programs; the most vital of our efforts creates an environment that would enhance the capacity of Black students to succeed.

1. Highlights of Afro-American Student Services Activities.

Retention of current UNM Black students is the focus of the majority of this Division's programming. Due to limited staff and resources, programs are designed to serve more than one purpose or need.

* = Retention Activity + = Recruiting Activity

* a.) Presentations - The Director, on a regular basis, makes presentations to students, faculty, staff, and administrators on the Division's services, and various issues impacting Black students at UNM.

* b.) + Workshops, symposiums, and other forums for discussion are sponsored and co-sponsored by this Division each semester. Topic may vary from discussion of Apartheid to interracial dating.

* c.) + Cultural programs in recognition of National and Regional Black holidays are sponsored and co-sponsored by this Division annually. (Black History Month, Kwanza, Martin L. King, Jr.'s birthday, Juneteenth).

* d.) Advise and consult a variety of student organizations on a need basis, consult with University faculty, staff, and administration on Black students' needs. (Blacks In Science and Engineering, Black Women Support Group, Black Student Union).

* e.) Job listings from a variety of companies are posted at the Center, in addition to information on corporate internships, and temporary employment opportunities.

* f.) Counseling is provided on a limited basis in the following areas: personal, academic, financial aid, family, and group. Scholarships are available at the Albuquerque Counseling Cooperative for low-income students with long-term counseling needs. Parolee counseling is also provided on a need basis.

* g.) Free tutoring in lower level math or english. (this service is limited, tutors are volunteers)
* h.) Free typing service and free use of typewriters. (this service is limited, with restrictions)
* i.) Black publications are subscribed to, or arrangements are made for them to be donated to the Center. The Division also publishes a "Black Student Survival Guide" for UNM students and sends out periodic student reminders and updates. A 1985 "Blacks in New Mexico" calendar was recently published with our assistance.
* j.) Mentor Project connects UNM students with other students, faculty, staff, or community in their fields of interest. The annual Open House is the kick-off for this activity.

k.) Referral services - This office maintains a mailing list of over 500 individuals and organizations in the NM Black community, as well as a listing of National Black Organizations. We also maintain a similar list of a variety of services off-campus often needed by our students.

* l.) Public Service TV training for student/community is
+ supervised by this Division. The training lasts 15 weeks and culminates with the trainee producing and hosting the Black Experience TV program on KOAT-TV, Channel 7. This program helps provide a qualified pool of producers and hosts for our programming.
* m.) Grant and Proposal writing activities were respon-
+ sible for this Division receiving a City grant to train Center staff and representatives in video production and to produce 3, ½ hour programs for Cable TV. The programs, entitled, "Black Women and Literature", features Black students, faculty, staff, and alumni from UNM. Airing of programs is scheduled for Fall, 1985.
* n.) Monitor between 5 - 20 elementary education majors
+ per year who use the Division's Saturday Tutoring Program and After School Academy to fulfill degree requirements in their department.
* o.) Cultural Programming Activities included seven perfor-
+ mances of original works reflecting the Black cultural experience. These works, which were created by Center staff, were designed to provide students, faculty, staff, and the off-campus community, with concrete culturally visible events:

    i.) Mitote (two performances in February)
    ii.) Black Women and Literature
    iii.) April Fundraiser (You Done Taken My Blues An'Gone)
    iv.) Black Cultural Holiday celebrations:
        a. Martin Luther King Jr. birthday (January)
        b. Black History Month (February)
        c. Women's Conference (March)
        d. Juneteenth (June)
        e. Arts in the Parks performance (June)
        f. Development of Newchild Productions, Inc. A non-profit theater and media arts performance and training program to augment resources and facilities not available on campus.

* p.) Open House - Annually in October.
+
* q.) Button Campaign (in conjunction with Open House).
+

2. Afro-American Student Services On-Going Activities

The Afro-American Student Services Program offers many benefits to Black students, on campus and within the community. The following are some of the services made available by the Afro-American Center:

a.) Career, academic, and personal counseling. A trained counselor is available to aid students in career selection, give academic guidance and provide personal counseling.
b.) Registration Assistance - For students having trouble selecting needed classes.
c.) Tutorial and Financial Aid Information - Counseling in regard to your tutorial needs and referrals to University-wide services that meet those needs. Providing tutoring assistance in Math, English and some Sciences. Assist students in the preparation of Financial Aid forms.
d.) Emergency Student Loan Fund - In case of emergency, students may borrow up to $50.00 from the Afro-American Center Emergency Student Loan Fund.
e.) Scholarship Information - Numerous scholarships are offered during the year through several colleges on campus and from community organizations. The Afro-American Center can help students find out the information necessary to apply for these scholarships.
f.) Career Preparation Seminars - Several major corporations visit the Center during the year to discuss opportunities available within their organizations.
g.) Full & part-time employment information - All employment notices received by this office are posted and updated on a regular basis.
h.) Typewriter and emergency typing service - Students may use typewriters in the Black Student Union office at no cost. Free emergency typing service is available for those who need it. (there is a page and time limit.
i.) Study area - The Afro-American Center conference room, which houses books and resource materials donated by University departments and community can be reserved by students for group and individual study session. Other services provided: free telephone use (local calls) Black Student Union office, Black fraternities and sororities mail boxes.

j.) Special Programs
i.) The Black Experience - A bi-weekly public service television program which focuses on a variety of concerns pertinent to local, as well as national, Black communities.
ii.) Senior Recognition Day - Afro-American Student Services and Black Student Union co-sponsor this event which acknowledges Seniors at the University and recognizes outstanding achievement by Black students.

3. Afro-American Student Services Off-Campus Activities

The Albuquerque Counseling Cooperative

We provide consulting to the board and staff and some counseling time. In return, the Cooperative has delivered over 250 hours of counseling time to our students in 1984, and over 100 hours thus far this year. This amounts to over $8,750 in donated time, much of it donated free or at reduced fees for our students. Also, the April, 1985 fundraiser that raised over $1000 in equipment, cash, and client scholarships for the After School Academy, and for our students who use their services, but are unable to pay. The Cooperative is a unique institution that undertakes to make itself sensitive and available to the needs of minorities. Given that the UNM Student Health Services has waiting lists of clients, and no Black staff, the Cooperative is an invaluable resource for students and faculty with long-term counseling needs. In total, our work with the Cooperative has brought nearly $10,000 in donated services, equipment, and cash to add to our limited budget.

Black Community Organizations, Churches, Service Organizations, and Professional Organizations

Due to financial aid cutbacks, and limited University resources, we have had to look to the community for support in emergency

loans, shelter, food, and scholarships. We were strongly encouraged by the University to do this. Black churches and families have opened their doors to our students when the University dorms couldn't, and have fed them. The National Council of Negro Women, the National Technical Association, Black Fraternity and Sorority Organizations, have provided thousands of dollars in scholarships to Black students attending UNM. The organizations not only have delivered in terms of hard cash, but also are a primary source of locating potential Black students, advising, and mentoring relationships with Black professionals, job placement, both before and after graduation, and career networks. As a result of these mutual beneficial relationships, we developed a support network that was unavailable on campus.

Arts Organizations and Committees

We provide the only locally produced Black theater work in New Mexico. The importance of cultural programming and activities for Black students cannot be overemphasized in a culturally isolated environment where their numbers render them almost invisible; cultural events are of crucial importance. These events provide social, educational, and cultural contacts that again; on campus resources do not provide.

In the past five years, we have produced five plays (our last one being the April fundraiser), developed the City's Black History Month program at the Kimo theater, which provided $1,875 in fees for crew and talent, the crew being UNM students; strong support in Juneteenth activities, which has also acted as a fund-raising event for the last two years. Our work in the Arts not

only provides cultural programming, but opens the only career and training opportunities for Black students interested in the Performing Arts as a career, not to mention the counseling aspects of our approach to directing. The University, in appreciation for our work in the Arts and Education, nominated me for the YWCA's Women on the Move Award.

Publicity and Public Relations

The Afro-American Center has used newspaper, television, radio, and cultural events to promote our activities, and to create greater Black visibility. We have had solid and consistent, positive mention of our activities in the newspaper throughout the year. Both KUNM and KANW have worked closely with us during special projects, i.e., Black History Month, and Open House. Our Black Experience bi-weekly television program is one of the only two Black local organization programs on television. We cannot overestimate the dollar and public relations value of this coverage, or the impact on recruitment and retention. It would be safe to assume it is substantial. The television program serves to provide information on the Center, the University, and the Black community, explores issues, provides media training to Black UNM students, and aids our recruitment, retention, fundraising activities, and supports our community relations efforts.

AFTER SCHOOL ACADEMY

Recruitment of capable Black students is the second element of our mission. We have been forced to focus our efforts locally because of budget limitations. The After School Academy, though not our only, is our principle recruiting effort. The Academy began as a summer recreational program for younger children. With University support we began to redesign and re-orient the program's focus from a recreational to an academic recruitment vehicle. The program design was based on these following propositions:

1. That early intervention by the University by means of an attractive, future oriented, career program will establish a practical working partnership between potential minority students, their families, and the University community.
2. That early academic support intervention, i.e., tutoring, counseling, advisement, will increase and enhance academic achievement, and better prepare students for the transition into the University's system.
3. That early introductions to skills and instruments utilized by the new communication and information technologies, i.e., video, computer technologies, personal marketing methods, and related business skills, and exposure to minority media professionals as role models in these fields will create a better understanding of career opportunities and the preparations necessary to enter these fields.
4. That early exposure to Black cultural achievements and Black professional role models will counter some of the negative impact of cultural isolation and invisibility.
5. That early and sustained positive involvement with the University will encourage Black parents and children to consider seriously UNM as a first choice in college selection.

The After School Academy has currently three components; the Summer After School program, the Saturday Tutorial program, the Performing and Media Arts training program. Each of these programs combine academic and cultural projects in a relaxed, hopefully enjoyable, context.

The Academy survives and grows as a result of support from its own increasing community. Through sponsorship of cultural events and fundraisers, it is becoming recognized as a major academic resource for the city. Academy participants include Blacks, Hispanics, Indian, and Anglo families, and University and Kirtland Air Force Base families. Our support comes from the University, community organizations, the City, and individuals.

The After School Academy experienced a year of substantial growth. Our tutorial services expanded. We increased our offerings in the summer program to include the Minority Media Arts Training Program. The program allowed us to increase our retention of older returning children, and recruit new students to the program. Our level of community support expanded in the forms of donations, volunteers, and parent involvement, and campus support and involvement.

Other Recruitment Activities - These activities allow us to reach out beyond those youth involved with the Academy:

1. High School Black Student Unions - This Division, in cooperation with UNM's Black Student Union, assist Black Student Unions at local high schools in their efforts to organize and fundraise. We also provide information, make presentations, and assist with cultural programming.
2. College Experience Day - This program is designed to give high school students an opportunity to come to the University campus for a full day to attend classes with students and participate in other student activities. (ALCOA funds were discontinued.)
3. Community Youth Organizations - This is an excellent source for identifying college-bound Black youth. The Division supports a number of these groups through sponsorships and active participation in their programming. (NAACP-ACTSO, AKA Jr. Debs)
4. Radio and TV Announcements - Each semester, a series of 30 second and 60 second Public Service Announcements about

the Center's activities are run on local stations. These spots are produced in cooperation with the respective stations.
5. Cooperation with Office of School Relations - This Division cooperates with the Office of School Relations in statewide high school visitations and presentations.

BLACK ALUMNI RELATIONS

The progress in this area has been slower than in other areas. This has been due, in part, to staff limitations and also, the University's past difficulties with former Center personnel. Even with these limitations, we have been able to develop the beginnings of a programmatic approach in this area.

We regard alumni relations as a very important part of our mission. The positive relations we have developed with undergraduates and their feelings of "belongingness" are the cornerstones of a strong supportive Black alumni relationship. Presently we offer a range of services and activities that speak to answering some alumni academic and career needs. We also seek to foster mentor relationships between alumi and undergraduates.

Services and activities include:

1. Job placement and career planning,
2. Graduate studies planning,
3. Black women's support group,
4. Speaker's program - various alumni speak at the Center on topics of local and national importance.

FUTURE PLANS

We can point to some solid achievements in the past five years. It has not been an easy struggle. The developing of programmatic strategies to fulfill our mission allowed us to extend our capacities and services, despite "no-growth" University budgets. We were able to build a service "safety net" for Black students and to create a coherent, academically-oriented, long term recruitment program.

Although we see improvement in retention, graduation, and recruitment figures, this improvement is small. Black students' predominate complaint is that they feel they are in a racially hostile or insensitive environment. Many of them that feel forced to drop out cite their feelings of alienation and isolation. The loneliness, the feeling of abandonment, lack of self-image reinforcement, the having to be the object of everyone else's attitude toward Black people, are among the many difficulties associated with cultural dismemberment as identified in counseling and support group sessions.

We have been struggling for five years with the effects of cultural isolation and invisibility on students. Last year marked an end in a major phase of our development, the creation of a workable student supportive service delivery system and network for Black students.

The next phase in the development of our retention efforts will focus on further development of our cultural programming. If culture can be accepted as the group memory of proven survival strategies and tools, then to be divorced from it is to

be separated from the most vital of resources and support. Black students, both local and out-of-state, once here in New Mexico, are regarded as invisible. For local Black students, being one of a few of the Black students in school classrooms encapsulates the pain of isolation. Expanding cultural programming through theater and the arts, through production of original works by Black writers and artists, through sponsorship of bringing out-of-state famous Black performers, scholars, and professionals, and with media visibility, will result in the development of a larger cultural context. Albuquerque is many hundreds of miles from any large Black cultural center. This leaves our Black students, at a time of intellectually and psychologically heightened sensitivity, in a very disadvantageous situation. We have been developing an island of cultural access. Not only for entertainment, role modelling, and networking, but for Black cultural survival strategies and tools. These cultural inheritances are necessary resources, the access to which reduces the trauma and isolation our students face.

Cultural programming strengthens not only our retention efforts, but our recruitment efforts as well. As mentioned above, our cultural activities, events, and productions increases our visibility in the community and creates the basis for positive identification with the Center's programs and projects.

With the size of our staff and budget, our further development in this direction will depend on continued and expanded relations with the City, community organizations, etc. We will especially focus special attention on our relations with the City through South Broadway Cultural Center, Newchild Productions and Albuquerque Counseling Cooperative. Through these relations we can interface with other groups. Through co-sponsorship, providing administrative support and technical assistance, and joint proposal ventures, we will be able to do projects otherwise impossible because of funding.

The After School Academy is maturing. With support from the South Broadway Cultural Center, we will be able to extend our contact with participants through our affiliation with Newchild Production's Performing and Media Arts Training Program. Also, we will be expanding the Saturday Tutoring program and our contact with local Black high school student groups.

PERSONNEL REPORT

The Center lost a very valuable employee, Shirley McDowell, this year because of family difficulties. She has been replaced by Yvonne LaCour-Malloy. We also were granted a temporary part-time position that has been upgraded to permanent part-time. All personnel are encouraged to further professional development. The Director plans to set an example by starting the process of beginning her doctoral studies.

appendix

Afro-American Student Services Totals 1984-85

1.	Average number of Black students on mailing list	495
2.	Average number of UNM students in Black Women's Support Group	8
3.	Average attendance at Noon Lecture Series	10
4.	Student counseling hours total	189
5.	Total number of free term papers typed	14
6.	Open House attendance total	250

After School Academy Totals 1984-85

1.	Total number of children participating	97
2.	Total number of teachers	10
3.	Total number of UNM students who are ASA parents	6
4.	Total number of UNM staff/faculty who are ASA parents	6
5.	Total number of UNM students who are former ASA participants	14
6.	Total number of participants in Saturday Tutorial Program (limited to 20 students)	20
7.	Total community organizations participating	5
8.	Total hours donated by parents & families	40
9.	Total cash deposited in ASA account (generated by April fundraiser) *	$455.98
10.	Total value of equipment donated to ASA by the Albuquerque Counseling Cooperative (also generated by the April fundraiser)	$400.87
	TOTAL GENERATED BY APRIL FUNDRAISER	$856.85
11.	Total cash deposited in ASA account from United Way of Greater Albuquerque Donor Option	$ 38.23
	Balance Due (will be deposited in ASA account)	$ 76.61
	TOTAL CASH DONATED BY UNITED WAY TO ASA	$114.84
	TOTAL CASH & EQUIPMENT DONATED TO ASA FROM OUTSIDE SOURCES	$971.69

Cultural Programming Totals 1984-85

1.	Martin Luther King, Jr. birthday attendance	30
2.	Black History Month activity (Musical Extravaganza)	100
3.	Black History Month activity (Kimo Gallery exhibit)	100
4.	"Mitote" performances - at Kirtland Air Force Base	60
	- South Broadway Cultural Ctr.	35
5.	April fundraiser attendance (You Done Taken My Blues An' Gone)	800

*balance due from ad revenue for fundraiser $ 80.00

GRAND TOTAL $1051.69

SOUTHWEST HISPANIC RESEARCH INSTITUTE
AND
CHICANO STUDIES PROGRAM

JOINT ANNUAL REPORT

July 1, 1984 - June 30, 1985

Submitted By:

Jose A. Rivera, SHRI Director
Tobias Duran, Chicano Studies Director &
SHRI Academic Coordinator

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I. SIGNIFICANT DEVELOPMENTS

The Southwest Hispanic Research Institute and the Chicano Studies Program at UNM implemented a variety of major programs in 1984-1985 as follows:

A. Herencia: The Atrisco Community

Funded in part by the New Mexico Humanities Council, this oral history research project was completed in 1984-1985, resulting in: (1) the creation of several archival collections on the heritage of the Atrisco community; (2) recordings of interviews, transcriptions and other historical items including letters, and diaries, are now available at Zimmerman Library; (3) a collection of photograph negatives is permanently housed at the Albuquerque Museum (Photo Archives).

The Atrisco Project, co-sponsored by the Albuquerque Museum and UNM Libraries, also organized a special presentation in the community of Atrisco and a major photo exhibit at Zimmerman Library. The Albuquerque Museum is presently (July 2, 1985 through September 22, 1985) displaying a fifty item exhibit (with text) based on the project.

The Atrisco Project officially ran from December 1, 1983 to September 30, 1984. The project recently received an award of merit from the Albuquerque Conservation Society for its preservation of local culture in the South Valley.

B. Mutual Aid Societies in the Hispanic Southwest

The Mutual Aid Society Project was supported under a $24,492 grant from the U.S. Department of Health and Human Services. The study of sociedades mutualistas, conducted by SHRI staff, and UNM faculty members such as, Robert Kern (History), Rowena Rivera (Modern & Classical Languages), Tim DeYoung, Helen Mueller, and Leonard Stitelman (Public Administration) and others, resulted in a report which is being considered for publication as a monograph or as several journal articles. The report contains case histories of four Hispanic southwestern mutual aid societies which have continued to function in the contemporary period.

C. Acequias y Sangrias: The Course of New Mexico Waters

Funded under a grant from the New Mexico Humanities Council, the Acequia project will contribute to the timely water policy debate in the state by collecting, preserving and

disseminating information on the time-tested practices of the Hispanic and Indian members of traditional ditch irrigation systems in New Mexico.

The project has a time period from March 9, 1985 to December 31, 1986. Project activities will include collection of oral interviews, photos and other documents, presentations at community seminars, and development and distribution of exhibit materials. Ultimately a book manuscript (Pictorial History of New Mexico Acequias) will be authored. The project co-sponsor (School of American Research in Santa Fe) has agreed to assist in the development of the manuscript and to raise the necessary publication funds (SAR Press).

D. Mutualistas: The Roswell Experience

Funded by the New Mexico Humanities Council, the Roswell Project began on January 1, 1985 and will terminate on December 30, 1985. The collaborative study, which includes El Centro de la Familia, Inc., in Roswell, the Chaves County Historical Society and the UNM Libraries, will collect oral interviews and historical memorabilia focusing on La Sociedad y Fraternidad Mexicana, 1901-1954, in Chihuahuita, the Chicano

barrio in southeast Roswell. Materials collected will be presented, disseminated and exhibited in a number of settings.

E. Graduate and Professional Opportunities Program (G*POP)

The UNM G*POP, a program which provides graduate and law school fellowships for minorities and women in certain specified fields, is funded by the U.S. Department of Education for $214,900 in 1984-85 and has been administered at SHRI by Antonio Gomez, a new staff member of the Institute, since March 1, 1985. The program provided fellowships of $4500 per year plus tuition and fees to 24 students in 1984-85. SHRI will continue to administer the program in 1985-86.

F. Working Families and Sunbelt Industrialization: Changes in the Home and the Work Place

The Working Families Project is funded for $100,000 for the period of 6-1-85 to 6-30-86 by the Russell Sage Foundation and is the continuation of a data-gathering project that was funded by the National Science Foundation. The NSF work entailed the gathering of interview

material from women who were both mothers of small children and who also worked in the electronics or apparel industries in Albuquerque. The Russell Sage project provides for the analysis and publication of the findings from the NSF research. The eventual monograph will include chapters on: 1) recent manufacturing expansion in the Albuquerque area; 2) accounts of the types of jobs in which women, mostly Chicanas, are involved in the new "Sunbelt Industrialization"; 3) the effects of Sunbelt Industrialization on ethnic and working class family organization and ideology; 4) the prospects of union organizing and future employment of Chicanas and other women in the new manufacturing sector. The project's other collaborating units include the Departments of Anthropology at Brown University and at UNM.

G. Working Group and Symposium on Upper Rio Grande Water Policy

Co-sponsored with the UNM Natural Resources Center and the Center for Native American Studies, this project was funded by the Ford Foundation ($36,000) for the period of September 1, 1984 to September 30, 1985. The project sponsors formed a Working Group to identify water problems in the upper Rio Grande, to explore

solutions to the problems, and to construct an agenda for the implementation of the solutions. Draft materials on those water issues have been developed and a full report will be presented at a major Water Policy Symposium to be held at Ghost Ranch on September 9-11. This project is part of a series of projects funded by the Ford Foundation examining Water Resources and Poverty in the Southwest.

H. Chicano Studies

The Chicano Studies Program offered and cross-listed the following courses taught by Chicano Studies staff and departmental faculty as indicated:

Department and Title of Course	Semester(s) Offered	Instructor's Name
American Studies 241 Chicano Experience in U.S.	Fall, 1984 Spring, 1985	Ray Burrola Ray Burrola
American Studies 286 Intro. to S.W. Studies	Fall, 1984	Tobias Duran
American Studies 341 History of Conflict in N.M.	Fall, 1984 Spring, 1985	Tobias Duran
American Studies 301 History & Folklore of N.M.	Summer, 1985	Tobias Duran & Rowena Rivera
Spanish 301 Themes in SW His. Culture	Fall, 1984 Spring 1985	Erlinda Gonzales-Berry Rowena Rivera
Spanish 315 Southwest Folklore	Fall 1984 Spring 1985	Jose Reyna Rowena Rivera
Spanish 315 NM Folklore Literature	Spring 1985	Rowena Rivera
Spanish 357 Intro. to Spanish-American Lit.	Fall 1984	June Carter

Spanish 370 Hispanic Literature	Fall 1984	Sabine Ulibarri
Spanish 437 Literatura y Pensamiento Chicano	Spring 1985	Gonzales Berry
English 211 Southwest Literature	Fall 1984	Antonio Marquez
English 211-001	Spring 1985	Rudolfo Anaya
Chicano Literature 004		Antonio Marquez
English 411 Chicano Literature	Spring 1985	Rudolfo Anaya
Political Science 300 Labor & America Politics	Fall 1984	Martin Sanchez-Jankowski
Political Science 307 Politics of Ethnic Groups	Fall 1984	Sanchez- Jankowski
Political Science 308 Chicano Politics	Spring 1985	Tobias Duran
Sociology 216 Race & Cultural Relations	Fall 1984	Patrick McNamara
216-001 216-002	Spring 1985	Tomas Atencio
Sociology 326 Sociology of New Mexico	Fall 1984	Nelson Valdes
	Spring 1985	Nelson Valdes
Sociology 221 Rich & Poor Nations	Spring 1985	Nelson Valdes
Psychology 373	Fall 1984	Eligio Padilla
Cross Cultural Psychology		
Philosophy 115 Intro. to Chicano Thought	Spring 1985	John Trujullo
Women Studies 232 La Chicana	Fall 1984	Jenny Chavez- Montoya

Women Studies 379 Mexican Women in the U.S.	Spring 1985	Jenny Chavez-Montoya
History 280 U.S. Mexico Border	Fall 1984	David Maciel
History 320 20th Century Chicano	Fall 1985	David Maciel
	Spring 1985	David Maciel
History 283 La Raza History Mexican-American	Spring 1985	Maciel/Duran
History 398 Mexico Since 1821	Spring 1985	David Maciel

I. Other Projects

The Southwest Hispanic Research Institute and Chicano Studies also sponsored, co-sponsored or cooperated in a number of other special activities, events, and lectures, including the following:

A. Stress Reduction Workshop;
B. Data Users Workshop (National Hispanic Survey) with Dr. Carlos Arce of the NuStats, Inc.;
C. Lecture by Pablita Velarde, American Indian Painter and Storyteller;
D. Forum of Rio Grande Institute, 1984-85 Fellows;
E. Paso Por Aqui Lecture Series (co-sponsored by UNM Department of Modern & Classical Languages);
F. Lecture and presentation by Andres Segura, Mexica-Tenochca Philosopher and Traditional Dancer from Mexico City/Tenochtitlan;
G. In the Spring of 1985, the Institute conducted a competition for best UNM Doctoral Dissertation on an Hispanic topic in honor of George I. Sanchez. The first recipient of the George I. Sanchez Memorial Award was Tomas Atencio, Ph.D., Sociology, 1985.

II. PLANS AND RECOMMENDATIONS

Although future plans for the Institute are detailed in the SHRI "Long Range Development Plan," there are a number of proposals, projects, and activities which will be pursued or accomplished in the near future. Among them are the following.

A. The Institute has found a permanent home located at 1829 Sigma Chi Road. Occupancy will begin September 1985.

B. The Institute plans to submit the following recommendations to the UNM administration.

1. Increase in the 1986-1987 Chicano Studies Adjunct Faculty budget for the purchase of release time from departmental faculty who have an interest in developing curriculum (interdisciplinary) on Southwest Studies (from current $17,000 to $30,000);
2. Increase of the research (SHRI) budget in 1985-1986 of one FTE to purchase release time from UNM departmental faculty for the purpose of establishing a permanent Faculty Research Associates Program as a collaborative venture with UNM departments; the FTE resource would allow flexible arrangements such as three 1/3 time appointments or two 1/2 time appointments to be rotated among departments on an annual basis (cost: $30,000);
3. Allocation of two Graduate Research Assistant positions for the purposes of: (a) training graduate students in the design and development of interdisciplinary research projects, and (b) providing departmental faculty with staff support in the development of grants proposals to funding sources (cost $16,000);

4. One-third salary for the Visiting Scholars Program as an incentive to attract promising young scholars or senior research faculty on sabbaticals from other southwestern universities (cost $10,000); and,
5. Supplemental "seed capital fund" to attract departmental faculty at UNM into the Faculty Research Associates Program in furtherance of research proposals to be submitted jointly to funding sources; anticipated items include funds for travel, commissioned papers, word processing services, computer time, photocopying and mailing of proposals, follow-up on proposals, etc., (cost: $10,000).

III. STAFF CHANGES

A. Appointments

Rowena Rivera, Faculty Research Associate (1984-1985); Ernest Anthony Mares, Visiting Scholar, January 1, 1985 - December 31, 1985; Tomas Atencio, Visiting Lecturer, Chicano Studies & Sociology, Spring Semester, 1985; Antonio Gomez, Program Director, March 1, 1985; Felipe Gonzales, Visiting Research Associate, June 1, 1985 - May 30, 1986; David Lujan, Graduate Assistant (Fall & Spring Semesters) and Project Coordinator, June 1, 1985 - August, 30, 1985; Paula J. Sena, Work Study, left December 30, 1984; Jerry Varela, Work Study, September 1, 1984 - May 30, 1985; Marci Sanchez, Work Study, January 1, 1984 - May 30, 1985; JoAnne Rivera, Work Study, June 3, 1985; and Rosemarie Romero, Work Study, June 3, 1985.

B. Promotions: None

C. Separations: Paula Sena, Work Study, December 30, 1984; Marci Sanchez, Work Study, May 30, 1985, and Jerry Varela, Work Study, May 30, 1985.

IV. PUBLICATIONS

During 1984-85, the Institute continued its Working Paper Series and released the following titles:

"WE COME AS FRIENDS: The Social and Historical Context of Nineteenth Century New Mexico," by Tobias Duran, Summer 1984;

"Chicano Dreams: Investigations in Cross-Cultural Research," by Samuel Roll, Psychology faculty member, Fall 1984;

"The Intellectual Power of Bilingualism," by Rafael M. Diaz, Psychology faculty member, Fall 1984;

"Roofing Careers in Albuquerque: An Analysis of Legal and Undocumented Labor," by Gary Lemons, Sociology graduate student, Fall 1984;;

"Making Up What Is Lacking: Towards An Interpretation of the Penitentes," by Robert Sprott, O.F.M., Anthropology graduate student, Fall 1984;

"The Protest Function of Spanish-American Identity in New Mexico," by Phillip B. Gonzales, Visiting Research Associate, Spring 1985.

Outside Publications included:

"Francisco, Chavez, Thomas B. Catron, and Organized Political Violence in Santa Fe in the 1890s," by Tobias Duran in the New Mexico Historical Review, July 1984;

"Miguel de Quintana, Poeta Nuevomexicano ante la Inquisicion," by Francisco Lomeli and Clark Colahan in Revista Chicano-Riquena, Summer 1984;

"Official Reactions to Hispanic Defendants in the Southwest," by Gray D. LaFree, forthcoming in Journal of Research in Crime and Delinquency, August 1985;

"Los Alamos: From Where the Zigzag Lightning Strikes," by E. A. Mares, forthcoming in IMPACT Magazine, August 6, 1985, Albuquerque Journal;

Penitente Self-Government: Brotherhoods and Councils, 1797-1947, by Rowena Rivera and Thomas J. Steele, S. J., forthcoming title published by Ancient City Press;

"Patterns of Housing Discrimination Against Blacks and Hispanics in Three Sunbelt Cities," Review Article of Minorities in the Sunbelt, Franklin J. James, et.al., forthcoming in Urban Resources Journal, Winter 1985, by Jose A. Rivera;

"Fraternal Societies and Human Services Agencies: A New Partnership for Organizational Change," submitted to Administration & Society, by Jose A. Rivera;

"The Concept of Ayuda-Mutua (Mutual Help) In Hispanic Mutual Aid Organizations: Indigenous Sources for Mental Health Infrastructure," submitted to American Journal of Orthopsychiatry, by Jose A. Rivera;

"Self-Help as Mutual Protection In Cross-Cultural Groups: A Fourth Explanatory Model for Empirical Research," submitted to Journal of Applied Behavioral Science, by Jose A. Rivera;

"Sociedades Mutualistas In the Hispanic Southwest: Origins and Contemporary Social Functions," submitted to Social Science Quarterly, by Jose A. Rivera.

V. OUTSIDE PROFESSIONAL ACTIVITIES OF STAFF

Ray Burrola, Rowena Rivera and Tobias Duran presented the results of the Atrisco Oral History

Project at the annual meeting of the National Association for Chicano Studies held in March 1985 at Sacramento, California. Tobias Duran also presented a paper: "The Fair Employment Practice Act of 1949." At the same conference, Jose Rivera presented the research monograph on Hispanic Mutual Aid Societies in the Southwest. In April, Ray Burrola and Rowena Rivera, presented papers during the annual conference of the Historical Society of New Mexico at Las Cruces:

"Herencia: The Atrisco Community" by Ray Burrola;

"The Atrisco Community: Folklore and Survival," by Rowena Rivera.

Earlier in the year (October 1984), Rowena Rivera presented a lecture at Casa Armijo in Albuquerque's South Valley: "La Poesia Oral de los Nuevomexicanos." The public exhibit on the Atrisco Oral History Project was mentioned earlier and in total was displayed on three different locations: (1) Atrisco Elementary School, (2) Zimmerman Library, and (3) The Museum of Albuquerque.

VI. OUTSIDE SPONSORED RESEARCH

PROJECT	SOURCE & AMOUNT	DURATION
Atrisco Oral History	NM Humanities Council ($10,970 in-Kind)	12/83-10-84 plus $36,959

Mutual Aid Societies	U.S. Department of Health & Human Services ($24,492)	9/83- 9/84
Paso Por Aqui Lecture Series (Co-sponsored with Department of Modern and Classical Languages)	NM Humanities Council ($5,965 in-kind)	8/84- 5/85 plus $9,710
Acequias Y Sangrias: The Course of New Mexico Waters	NM Humanities Council ($11,307 in-kind)	3/85-12/85 plus $27,350
Upper Rio Grande Working Group & Symposium (Co-Sponsored with Natural Resources Center and Center for Native American Studies)	Ford Foundation ($36,000)	9/84- 9/85
Mutualistas: The Roswell Experience	NM Humanities Council ($8,300 in-kind)	1/85-10/85 plus $19,952
Working Families & Sunbelt Industrialization: Changes in the Home & the Work Place (Co-sponsored by the Anthropology Departments at UNM and Brown University.)	Russell Sage Foundation ($100,00)	6/85- 6/86

CHICANO STUDENT SERVICES

1815 ROMA, N.E.

ANNUAL REPORT
1984-1985

CHICANO STUDENT SERVICES
ANNUAL REPORT
1984-1985

Antonio Mondragon, Director
Gloria M. Chavez, Student Advisor
Sean Garcia and Nova Galaviz,
work-study students

1. STAFF CHANGES: One (1) promotion, Gloria Chavez, from Program Specialist to Student Advisor.

2. BUDGET: Since our budget increased (1983-84 to 1984-85) by 15.9%, we were able to:

   A. Hire a second work-study student.
   B. Buy all the supplies we needed for the first time ever.

3. DEPARTMENTS UTILIZED: In our task to help students survive in school, most interaction was with the following departments:

DEPARTMENT	MAIN CONTACT
Student Financial Aid	Rita Padilla-Ervin, John Whiteside
Admissions and Records	Cynthia Stuart
General College	Fr. Clarence Galli
University College	Herta Teitelbaum
COE Bilingual Program	Rose Barboa
Basic Skills	Susan Deese
Hispanic Engineering Program	Tom Cummings
Dean of Students	Karen Glaser

   The main reason for this list is that priorities and contacts change from year to year. Another is to record our gratitude to these people who have been so generous to our students.

4. UNM Student Concerns addressed, in order of numbers (c.500)

   A. Financial Aid: Besides the advocacy on behalf of the student in daily financial aid problems, the difficulty of those faced with collections was a main concern this past year.

   B. Jobs: Besides acting as a mini-employment agency to work-study-eligible students, we tried to place parents and others in positions within and without the University. Some of the most cooperative personnel offices outside have been Lovelace Medical Center, KOB TV & Radio, Bernalillo County, among others.

   C. Grades: Students dissatisfied with grades started here in their quest for consideration through petitions and appeals. We sent out 265 letters to students who had flunked English 101 or Math 120 the previous semester. Approximately 12% responded and came by for tutorial referrals.

   D. Graduate School Possibilities: Our main constituents (Hispanics) are notorious for not wanting to go out of state. We have managed to convince several who were after majors not offered here that the world wouldn't come to an end if they left New Mexico.

4. D (continued).

The National Hispanic Scholarship Fund (San Francisco) has been very helpful to most of our students who applied for their grant.

A great deal of help was given by us in miscellaneous ways, e.g., writing cover letters, filling out applications, advisement about major, personal problems.

5. Non-UNM Students (c.75)

A. Students seeking financial and career advisement, but not at UNM (Beauty college, business College, T-VI)

B. Transfer prospects (c.40)

C. High school students asking about college. We get a number of high school and middle school students who will not be ready for a few years but their parents bring them to have us tell them about the different possibilities in college.

6. Applicants as returning students (c.50)

These people need help in a much different way since they have been out of school for a long time.

7. Ex-offenders, whether enrolled or intending to do so, come to us because we had sponsored and housed the Ex-offender Program years ago.

8. Undocumented Immigrants (c.20)

For the most part, we cannot help these individuals except to suggest different job options. They, however, keep coming here because their grapevine labels us as approachable.

9. UNM Employees (c. 10)

They come seeking an advocate , asking about grievance procedures or merely needing moral support.

10. Recruiters from other schools, government or companies (c.20)

11. Additional Projects and Duties

A. "Searching" project initiated June 1985, a video documentary about the histories of the ethnic and women's studies and student services programs. This entails fund raising, interviewing former administrators and students, and researching written material. Gloria M. Chavez is coordinating this.

B. Committees in which at least one of us serves are Affirmative Action, Fragile Children Program (BCMC), Faculty Club, Grupo Cultural (Los Lunas Prison), Minority Coalition.

NATIVE AMERICAN STUDIES
ANNUAL REPORT
1984-85

PREPARED BY
TED JOJOLA, PH.D., DIRECTOR

PERSONNEL:

Ted **Jojola**, Director (50% release time, 9 mo. academic contract; Asst. Prof. of Planning)
Geary **Hobson** (Acting Director, Summer; Lecturer 1, Fall, Spring)
Lucy **Tapahonso** (Lecturer 1, Fall, Spring)
Al **Henderson** (Lecturer 1, Fall)
Carlotta **Bird** (Lecturer 1, Summer)
Virginia **Lujan** (Clerical Specialist 1, resigned 4/15/84)
Edwina **Abeita** (Staff Assistant 1, 1/1/85 - present)
Sadie **Hoskie** (Research Aide, 20 hrs./wk., Fall, Spring)
Lucinda **Tomchee** (Workstudy, 20 hrs./ wk., Fall, Spring)
Sarah **Pino** (Workstudy, 20 hrs./wk., Fall, Spring)
Viola **Cordova** (Research Assistant, 10 hrs. /wk., Spring)

ADVISORY COMMITTEE (chair, A. Ortiz):

Anita **Alvarado** (Anthropology, Sabbatical - Spring)
Peggy **Blackwell** (Education)
Sam **Deloria** (American Indian Law Center, Resigned 3/85)
Alfonso **Ortiz** (Anthropology, On Leave - Fall & Spring)
William **Siembieda** (Planning, Sabbatical - Fall & Spring)
Paul **Vasallo** (Library Sciences)

COURSES:

summer 84	instructor;	enrollment;
El Ed 493-201,Pueblo Indian History	Penny Bird	9
fall 84		
Am Stu 302, Navajo Nation	Lucy Tapahonso	15
Am Stu 322, 5 Civilized Tribe	Geary Hobson	26
CRP 474, Cultural Aspects of Plng	Ted Jojola	cancelled
Eng 211, Indian Autobiographies	Geary Hobson	9
Eng 397, NA Literature	Lucy Tapahonso	11
spring 85		
Am Stu 326, Ind. in Amer. Pop. Culture	Geary Hobson	32
CRP 474, Cultural Aspects of Plng	Ted Jojola	7
Econ 340, Al Economic Development	Al Henderson	10
Engl 211, Trad. NA Non-fiction Lit.	Geary Hobson	5
Engl 397, NA Lit - Contemporary	Lucy Tapahonso	19
Wm Stu 231, SW NA Women	Lucy Tapahonso	20

NATIVE AMERICAN STUDIES
ANNUAL REPORT
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EVENTS:	date:	attendance:
1990 U.S. Census Meeting	2/7/85	17
Qualities for Excellence	4/24/85	15
University-wide Mtg. of Native American Programs	5/17/85	21
Staff Retreat (Taos)	5/9,10/85	5

Staffing Issues: During the Summer term of 1984, the Summer Institute of Linguistics for Native Americans (SILNA) was housed at the Native American Studies Center. Summer programming was kept minimal due to the ongoing leave of the Director, Ted Jojola. His return in August immediately issued a proposal to replace and upgrade the Clerical Specialist (CS 1) position to that of Staff Assistant. The resignation of the CS 1, Virginia Lujan, at the beginning of the new fiscal year presented an opportune time to initiate the proposal with the Personnel Office. The negotiations continued for the whole of the Fall semester and were eventually granted on the basis of building a management position (67%) with minimal secretarial (33%) assignments. The proposal further outlined the need to coordinate the various accounts and programs at the Center as well as to give responsibility for the logistical operations of programming and personnel to the Staff Assistant. Although secretarial and clerical services, per se, would be effected by this upgrade it was proposed that workstudy could temporarily perform most of the filing, typing, and answering of phones until there was an eventual reinstatement of a CS 1. The upgrade included a substantial increase in salary which will doubtless also serve to stabilize staff turnover.

In the Spring, additional monies were received from the Provost's office for a Research Assistant. The position is temporary and is intended to facilitate the establishment of an on-line computer data base on Native American students and Retention at the University of New Mexico (1973 - present).

Also in the Spring, significant negotiations were concluded with the College of Arts & Sciences to establish a Visiting Assistant Professor in American Studies for Lucy Tapahonso beginning in the Fall 85 onto the Spring 86. The position is 50% American Studies, 25% Women's Studies (WS), and 25% Native American Studies (NAS). Furthermore, the position represents an important precedent to two other proposals which will attempt to establish two tenure-track positions in American Studies (50%, 25% WS, 25% NAS) and English (50%, 50% NAS).

On another matter, NAS negotiations were successful with the Department of Classical and Modern Languages (CML) to continue the Lecturer contract for Navajo language instructor, Roseanne Willink, on a full time basis. It was proposed by CML early in the Spring to reduce this position to half time due to a lack of substantial enrollments above the 200 level. This proposal came at a time when significant policy was established both with the Navajo Tribe and the State of Arizona on Navajo language as a requirement for teacher certification. The proposal by CML, as such, will continue to be reconsidered pending more enrollment statistics, information, and recommendations to the Dean of Arts & Sciences.

PROGRAM EVALUATION: Beginning in the Fall, all public service programming was essentially suspended. Instead, this time was used for introspection. The process was initiated through a review and compliation of in house documentation since 1971. These were consequently organized into three major subsets; NAS Proposals & Reports (47 documents), Syllibi of courses with Native American content (94 courses), and General File of Native Americans (NA) at UNM (10 major catagories including a 1 & 5 year profile, 1978-83, of NA students at UNM).

In addition, a more time consuming task of developing a

detailed statistical report of Native American Retention at UNM (1973- present) has been initiated. The development of this data base is being coordinated with Admissions & Records and the UNM Computing Center. This data base contains 9875 individual student files with approximately 50 separate charactersistics per case. The Provost's office has extended additional resources through the establishment of a renewable computer account, a temporary Research Assistant position, and purchase of a Zenith V151, 16 bit (IBM compatible), microprocessor with modem, dot-matrix printer, and software (wordprocessing, communications, & data base).

The initial findings of the above activity has begun to generate specific recommendations and actions in regard to the short and long range prospectus for Native American Studies. Although the 5 & 10 year prospectus is still being finalized, program organizing to disseminate these initial findings has begun. Beside the draft compilations which have been distributed to key administrative personnel at the university, other NA programs both within and outside the university have been assembled at various times for their input and comments. These included NA institutions and student groups at UNM, select NA research and policy institutions statewide, and a number of other tribal educational units (headstart to highschool).

In a larger sense, the above activity parallels the state legislative activities set by House Bill 28 on Native Americans in Higher Education and the establishment of a Tribal Enterprise AA Degree Program at the UNM Gallup branch. These pieces of legislation have essentially set the overall tone of discussion among various groups statewide. What appears critical to the developmental work occuring within NAS is that these legislative activities are oriented toward reform and action. As such, complilation, coordination, and networking of existing resources

at UNM by NAS appears to be the key contribution area in light of legislative actions.

With regard to on-campus issues, NAS continues to be a principal organizer of the Ethnic/Minority Coalition. In particular, negotiations and designs continue to be pushed in favor of retaining the various programs on the existing Roma / Las Lomas site rather than a move to Mesa Vista Hall. On this matter, it should be noted that Academic Programs and the Institute for Native American Development have reached their own accord with Student Services. NAS and INAD will remain at 1812 Las Lomas while Student Services pursues its own plan to relocate at Mesa Vista Hall. The three student organizations who use Center space (Kiva Club, SW Indian Student Coalition, & Navajo Club) have been advised of this impending arrangement. In addition, a proposal has been forwarded to create a student activity support center in the basement of the Center in exchange for the creation of a microcomputer room in the existing Kiva Club office space.

Institute for Native American Development (INAD): Negotiations continue with UNM Press to expand the Institute publication series. A joint publishing venture was negotiated for the Sutton manuscript on the history of the US Indian Claims Commission. This book will be the 1st of a new INAD History series. It should also be noted that Professor Sutton has graciously agreed to forego any royalties so that such monies can revert into the publishing account of INAD in support of future publications. In addition, a 4th book of the INAD's Economic Development series is being negotiated with University of Maryland Sociology Professor, Mathew Snipp. Entitled *"Public Policy Impacts on American Indian Development: Critical Appraisals"*, the book will encompass and expand on the special papers presented at the American Indian issues panel of the 1984

Political Science Association.

There continues to be no closure on the reprint of the Ralph & Natasha Friar reprint of *"The Only Good Indian and the Hollywood Gospel."* The unbound books have been purchased and received by the Center and an estimate has been requested by the UNM Printing Plant. Its issuance is basically being hindered by negotiations on fixed royalties, negotiations on artistic work for the cover, and the lack of resources at present to pay for the binding. It is hoped that these can be rectified in the next fiscal year.

Along Institute lines, the Center has also expanded its research, microcomputer capabilities through a continuing dialogue with the US Census Bureau on tribal data needs as well as the Retention Study on NA Students. In addition, the Center is the receipient of a $24,000 equipment grant from the Wheels for the Mind Foundation, Apple Computer Corporation. Entitled *"A Preschool Computer Program in an Isolated American Indian Community"* , the two year project will use Macintosh 32 bit technology to facilitate the research and development of culturally appropriate materials and software for the Isleta Pueblo Headstart school. The project will also collaborate with the Albuquerque Public School computer program and the UNM Department of Computer Sciences.

Moreover, Center research advocacy continues to expand. The Reyer Trust in concept and negotiation has now evolved toward the notion of a perpetual fund in support of student advocacy in tribal communities at a regional level. Inquiries have been initiated both with the UNM Foundation and the Albuquerque Community Fund to invest the fund. The Center has also been involved in the organization of a Ford Foundation funded Upper Middle Rio Grande working group on Traditional Water Users. The activity was initiated in February and will conclude with the joint

sponsorship of a water rights conference in the Fall. Two other principal institutions are involved - the Natural Resources Center and the Southwest Hispanic Research Insititute. Furthermore, the Center has been asked to help organize and assist with the 9th InterAmerican Indian Congress slated for the last week of October, 1985, in Santa Fe, New Mexico

PROGRAM ASSESSMENT & RECOMMENDATIONS: There are three major areas that will continue to influence the future programming of the NAS. The **first** concerns the impending State legislation and accountability on NA students in higher education. Toward this concern, INAD should continue to build is research competency through the establishment and reporting of data on Native Americans at UNM. It is a further goal that this effort can be expanded to include regional-wide reporting across a range of socio-economic characteristics. Additionally, courses and professional training should evolve that would ultimately allow local tribal users of data to compile and analyze their own community profiles. The need is especially evident with the advent of microprocessors and the increasing capabilities of this technology to process large complex data sets at the local office level.

On a similar note, the Isleta Headstart microcomputer project has opened up yet another issue with respect to the cross-cultural applications of computer technology. From preliminary work, it has become evident that the venue of research and design in this field is largely confined toward scientific and business applications. The use of micros in education is further hampered by an ethnocentricity exhibiting Anglo-American ideals. Particularly with the State trend toward "high technology," it would behoove this project to promote its concerns into the cross-cultural dimension of micro-technology.

A **second** major area of concern regards the visibility of Native American programs at UNM. The present mood of university exigency and evaluation will force programs to reassess their growth priorities for the near future. For NAS in particular, it will mean that its program expansion will likely occur largely from the perspective of resource sharing with other programs. It is proposed, therefore, that NAS continue to secure its role as a university-wide coordinating program. Its preliminary reports leading toward a 5 & 10 year prospectus demonstrates conclusively that overall Native American programming at the UNM has been characterized by an uncoordinated and highly territorial pattern. The fact that UNM already possesses one of the largest overall Native American activity centers in the nation escapes both the attentions and priorities of the university community.

The **third** area of concern regards academic programming. It has become apparent that courses have stagnated at their present mode of presentation. The current situation of cross-listing without comparable NAS course numbers does not permit the FTE formula to build credit toward NAS programming. Correspondingly, there has been no demonstrated inclination by the receiving departments of NAS funds to build tenure-track faculty positions. The future task of NAS will be twofold. The first is to begin negotiations for the receipt of NAS course numbers. The second is to accrue FTE credits toward the establishment of tenure-line positions in key concentration areas. These key areas will become more apparent as the 5 & 10 year prospectus materializes and specific recommendations issue forth.

NATIVE AMERICAN STUDENT SERVICE

July 1, 1984-June 30, 1985

Lucille Stilwell, Director

Background

Every year, Native American Student Services directly serves approximately a thousand in the following areas: (1) academic advisement; (2) personal counselling; (3) student advocacy and liaison between the Financial Aid Office and Tribal based financial aid programs, e.g., Navajo, Laguna, Zuni, Acoma, Dulce and Santo Domingo, All Indian Pueblo Council Higher Education Offices, etc.; (4) direct tutorial intervention and referral to all academic support services; (5) recruitment throughout New Mexico and Arizona; (6) research of the need and development of programs for student retention.

In a sense, all these activities are subsumed by a single mandate, the retention of Native American students, and in the past two years we have redoubled our efforts to fulfill this need. We were concerned with such figures as those released by the College of Arts and Sciences which reveal a 72% attrition rate for Native American sophomores and freshmen as compared to 58% for the general population, as well as those released by the Bureau of Indian Affairs Higher Education Program which show in any five year period a national attrition rate 85% to 92%. In response to these figures, we felt we needed to be more creative both at home and at University

Of New Mexico and in a larger sphere. It was this concern that both helped to initiate and enlivened our response to House Memorial 28, which was introduced by Representative Judith A. Pratt and Nick L. Salazar during the 36th New Mexico Legislature.

The Governor's Task Force

The purpose of this task force, under the aegus of the Board of Educational Finance, was to study issues of Native American education in New Mexico and to hold a public hearing on these issues to improve the role of the state. To achieve this purpose it was necessary to get input from the widest variety and greatest number possible of entities involved in Indian Education; from college and vocational programs throughout New Mexico, from students in these programs, higher education staff members, tribal leaders, state agency leaders and other interested parties.

A special assignment was given to Lucille Stilwell of Native American Student Services by Vice-President Marvin "Swede" Johnson to work with the Board of Educational Finance staff and Board, both as a coordinator of the conference activities, and ex-officio member of all committees formed under the Steering Committee of which she was co-chairman. This assignment began in July and continued until all the specified tasks were completed. Board of Educational Finance did not allocate monies to support the functions carried out. By allowing Ms. Stilwell to carry on the functions mentioned above UNM established itself as a major force and supporter of the conference.

Some of the committees that were heard at the day-long hearing which was held on the UNM campus, September 21, 1984, are listed:

Curriculum/Academic	Student Concerns
Off-Campus Training	Community Colleges and Technical Schools
Financial Aid	Affirmative Action
Student Services	Tribal Educational Concerns

State and Federal Role in Native American Higher Education
Public Relations and Community Awareness

The Steering Committee, with representative from UNM-Native American Student Service, San Juan College, and the State Department of Education, together with BEF staff, had set the tone of each committee chairmen to cooperatively address issues through a process of periodic meetings. However, each chairman then established his own agenda based on the common concerns of the tribal representative involved. The reponses were varied and fruitful. One idea, for example, mentioned by many of the presenters, was to create an on-going commission to study in-depth the concers and proposal raised at the meeting.

A final report was produced and submitted to the board for approval before the final submission to the Legislators in time for their legislative session in the Fall. This report was also distributed to all chairpersons involved in the Hearing as well as Tribal offices. In February, 1985, a follow-up meeting to the legislative session was held in Santa Fe, with the Indian Legislators, to begin writing House Bill 610 (see attached Bill) and another open day-long meeting was held on March 28, 1985 in Albuquerque to

provide feedback to the tribal and university community. Our efforts through out this process were consistently witnessed by tribal officials, administrators, community members, parents, college faculty and students from throughout New Mexico and Arizona.

Also in keeping with NASS' mandate for retention, we were concerned last summer with the new Arts and Sciences requirements, essentially a 2.5 grade point average for students on full-time status. We wanted to hire someone who could advise and tutor students in danger of falling below this level, and hence losing their Tribal grants as well as their status in Arts and Sciences. We also wanted someone with strong credentials in English remediation--a subject which affects the performance of our students in all areas of college work--to assist us in creating a more on-going retention program. To accomplish this purpose, we wrote a proposal to the American Indian Resource Center at New Mexico State University and received funds to fill this position. A faculty member from the UNM English Department was hired for this purpose. Our plan has two phases. We would begin immediately on summer retention and amelioration, with a program called The Summer Survival Program and at the same time outline a more comprehensive program to effect our more long-term retention aims.

The Summer Survival Program

Our first goal in this effort was to identify and contact students most in need of Summer academic aid. This was done with the help of Frost Johnson of the Admission Office who supplied us the

names, and courses being taken by students with cumulative averages that had fallen below the standard 2.0. Approximately fifty students were contacted through this method, as well as by personal reference, and contacts with their classroom teachers. Twenty students participated in the program which included tutoring in English and Skills, and referrals to tutoring in all subjects with 90% retention rate, and with some student averages rising dramatically.

To continue this success and also the progress of the long-term proposal which had been outlined during the summer, we wrote and received another grant from NMSU which served as the basis of a unique consortium to retain this useful position. NMSU funds were matched by funds from the President's office, and this package was matched with funds from the General College to create an Assistant Professorship position. The requirements of this positions was the teaching of two remedial courses per semester in the General College (to which Native Americans might be referred) as well as completing a spectrum of tasks for NASS. These included academic advisement and referral of students in need of academic aid, tutoring such students in English, writing and submitting the long-term retention proposal, as well as a study to be done in conjunction with Professor Michael Hogan, Director of the Freshman Composition Program.

The Error Count Experiment

The partnership between NASS and this pivotal academic entity

presented mutual opportunities for both groups. For the Freshman Composition program, long concerned with the failure of Native Americans in English, it presented a unique opportunity to identify such students, to test and analyse their differences, both for the purposes of curriculum and special programs. From the point of view of NASS the results of the study could present a viable tool in helping to profile our students as a tool for advocating classes and programs that would assist our students in finishing college.

The students tested consisted of fifty-five Native American freshman (the experimental group) and fifty-five general population freshman (the control group). The procedure consisted of a comparative weighted-error count on the English 100 Diagnostic Essay. All scientific proccedures were followed, in randominzing, etc. The results were first tabulated and analysed by the experimentors themselves; they were then submitted to Professor Lambert Koopmans of the Math Department for more sophisticated "backup" procedures. The purpose of the experiment was to see if Native American Students entered freshman composition with more error in standard English than students from the general population, and, therefore, had a more difficult task in passing the course. A second hypothesis was that this extra error, if it existed, would be the product of bilingual interference--errors similar to those of speakers of English as a Second language, in which case it would represent another impediment, since such errors are not the focus of "mainstream" English

100 classes. A third hypothesis was that due to extra error--whichever kind--the Native Americans in the experimental group would flunk English 100 in greater numbers than the general population students in the control group. Another implication, though not a provable hypothesis here, is the widely held opinion of educators, that students with poor communications skills do poorly across the spectrum of courses, and are likely to flunk out of college.

All of the testable hypotheses were proven. The last of them was simply observed at the end of the semester, by counting the failures--D's and F's--in each group. There were seven for the general population group; thirteen for the Native Americans. Native American students in the study had significantly more error in all areas of composition; and very much more in the areas suggesting bilingual interference.

The Summer Enrichment Program proposal which to some extent had suggested the error experiment and which had been outlined the previous summer, was completed in the fall and submitted to the Indian Education Programs of the U.S. Department of Education and the Fund for Improvement of Programs In Secondary Education for Funding. This program has some features in common with the "Trios", College Enrichment Program here at UNM, but is far more intensive. But before our program is briefly described, it is important to explain why a special program for Native Americans is necessary.

Native Americans are serviced by many agencies on the campus, but are adequately serviced by none. This is clearly evidenced by the chronic difference in their dropout rate, even in comparison to other minorities. Our study, English in Composition, is just one thread in a blanket of evidence that Native Americans enter the university at a lower level of preparation than other students. Their entering ACT scores in all areas are at least two points lower than their counterparts, both in the University College and in the General College. And, as a recent study by the Office of Institutional shows, fewer of them are prepared in ways that foreshadow success. They are significantly different in other ways as well. They are largely rural, come from cultures which frown on total assimilation, and significant numbers are bi-lingual, with bilingual interference in their speech and writing. One or two of such students are accepted into the ESL English program each semester, but most of the students we refer are rejected as inappropriate. We also feel it would be inappropriate to place large numbers of Native American students in a program for foreign students, even it that program could accommodate them. Similarly, The Freshman Composition Program rejects the concept of special composition classes for Native American students as segregation, and we categorically agree with that. Each semester, the Skills Center helps some of our students, but for many with severe impediments, piecemeal help on individual problems is inadequate to

success, and more important, most of these shy and failing students will not avail themselves of this service. Finally, the College Enrichment or "Trios" Program services approximately 10% of Native American entering freshmen, who meet low income guidelines and who are defined as "highly motivated", with great success. "Trios", however, is exclusively an orientation program. It does not provide the intense academic enrichment that this large number of Native American students need prior to entry. Its orientation program is not geared to confront the special cultural conflicts of the failing students we have described. Finally, the students "Trios" accepts are intelligently chosen to benefit from and success for some of our students, nor meddle with the mix of the program that produces it.

Our American Indian Retention Program, an on-campus eight week summer education experience, was to have two dimensions, one being that of English and skills, designed which would prepare students, not only to succeed in the English 100 remedial English class, but also in other classes which depend upon communication reading and organization. A good deal of its initial attention would be paid to minimizing dialectal differences or Navajo/English code switching difficulties which are not treated by the regular English 100 curriculum, but are graded none-the-less, and are often the cause of failure. Standard ESL methods are to be incorporated in this procedure. Difficulties in the composition

program which students are predicted to encounter will be addressed, so that many of these students who are far behind will have at least a small "head-start" for success in this University. The orientation dimension would be coordinated by Dr. Elijio Padilla, Director of Clinical Psychology at UNM. This orientation dimension would be far more intensive than that of the "Trios" Program. It would lean heavily on current methods in cross-cultural orientation, on assertiveness training (necessary for many of our failing students, who are either overly aggressive or timid); it would introduce specifically Indian role models, and would deal with such fear as over-assimilation. In other ways it would be similar to the current "Trios" program in orienting students to university and community resources. It would also supply UNM with the ability to identify, track, tutor, support and refer these students for other help.

Although this proposal, as yet, has not been funded, both of the agencies that refused it, requested a second submission. In neither case was it refused for its content. The Fund for Improvement of Programs in Secondary Education considered our budget unrealistically low for such an ambitious program. The Indian Education Programs of the U.S. Department of Education required the proposal to be submitted directly from an Indian entity outside the University. Currently these adjustments are being made for resubmission.

Information Studies

In the past two years, one of the greatest problems we have needed to confront was the problem of information and data. Data was a primary resource we needed for the justification of the preceeding proposals. The Native American Student Service is indebted to many sources for our data. These units include Office of Institutional Research, to the Admissions Office, Testing Division, various Colleges in UNM as well as various offices of the U.S. tribes, the State of New Mexico and of the U.S. Government. For our own justification and the help of others we are striving to become a repository of such information on Native American students.

A study of 195 Navajo students done by Dr. Marlis Mann and Lucille Stilwell for Marvin "Swede" Johnson, Administrative Vice-President for Student Affairs, deals with the affect of on-site courses in education as an effective beginning for successful degree achievement at UNM. Of those who achieved degrees at UNM, 86% had transfer credit, i.e. college experience from schools other than Navajo Community College or the Gallup Branch, and no student was a reservation student only. Of the sixty non-transfer students who didn't finish, twenty-eight took some on-campus UNM coursework with reservation credit, while thirty-two had no other work than the reservation courses. In all cases, neither of these subgroups with no previous college experience pursued any further

higher education when it was no longer available in the student's community.

This statistic can be interpreted in at least two different ways. The first suggests that students who took on-site courses as their first college courses did so as a convenience. The courses were free, in walking distance, and geared towards an Indian population. The other suggests that these students are very traditional and did not wish to leave their families for an extended time. In either case this seems to support the contentional of our proposal, that those most likely to succeed are those who began at a bona-fide college or university with adequate support.

The case of the Pueblo Indian Education is some what different. Of the 183 pueblo student who were identified as on-site program student. 60 graduated with B. A. degrees, a large proportion of those who did not complete B. A. degrees did complete A. A. degrees. Of those who did not complete B. A. degrees, 68 had only UNM on-site reservation credit hours and in most cases only 6-12 hours of actal course work on the UNM campus, which was taken during the Summer Sessions. 16 of those not completing B. A. degree had reservation credit only. 12 student had reservation, UNM, and some type of extention had offered in their communities. 26 student had at least 9 transfer credit from another institution. Most of which were in New Mexico or Fort Lewis. Of those student who completed B. A. degree, half completed at least one semester of tranfer credit from

another university with the other half having taken an majority of courses work on-site with only a few courses on the UNM main campus.

Since we are oftern contacted by outside agencies for data on our students, this year we have compiled an extensive student profile, which is attached as an appendix to this report. We are now working on a comparison of achievement between 1983 and 1985, so that we can accurately chart the progress of our students, and the success of our activities. These statistics are also available to university, state, national, and tribal entities for the allocation of funds, scholarships, etc. They are also useful in career placement, and in forming consortia for the exchange of students and faculty, such as one we are now negotiating with the University of California at Berkeley, California.

Consortium Activities: On Campus

Native American Student Services actively cooperated in many activities with existing university units during the 1984-1985 year.

Freshmen Orientation for American Indian freshmen and transfer students, initiated Spring 1984, was continued with the Dean of Student's Office, beginning in May 1985 to August 1985.

We assisted the Financial Office in hosting a reception and luncheon for the benefactor of the Dean's Scholarship Program for American Indian Students.

On an assignment from Vice-President Marvin "Swede" Johnson,

the Alumni Office and Native American Student Service initiated a program to implement a support group made up of Alumni American Indians, which held its first meeting in Phoenix, Arizona. Also, on the direction of President Farer, we participated in the forming of a Steering Committee for this group at a Santa Fe meeting in Spring 1985, during which time Dr. Joe Suina, faculty member in the UNM College of Education, was selected as acting Chairman.

In conjunction with the Office of School Relations, we coordinated a one day Career Day, whereby ninety American Indian students came on campus. UNM students, whom we identified, took them to classes, and on tours of the campus, which included visiting such crucial places as the Admissions Office, Financial Aid, and the dorms. Other participating sponsors were the All Indian Pueblo Council's Johnson O'Malley Program and the Albuquerque Public School's Indian Education Program.

Finally, Native American Student Services and Career Planning and Placement worked together to identify those students on campus who were classified as undecided majors, in order to provide them with career choices. This partnership consisted of career choice seminars given on a cooperative arrangement throughout the year.

Consortium Activities: Out side the University

Native American Student Service assisted the Board of Educ-

ation staff and the Navajo Tribal Higher Education Office in setting up a policy which levies in-state tuition (rather than pay out-of-state tuition) to all members of the Navajo Tribe living on the reservation. The ruling became effective during the 1984-1985 academic year.

Native American Student Service participated in the formation of a consortium consisting of thirteen colleges and universities from the states of California, New Mexico, Utah and Colorado to address the problems of high attrition among Native Americans attending post-secondary institutions. Native American Student Service hosted one of the meetings on campus.

Finally, Native American Student Service assisted with the All Indian Pueblo Council, the Laguna Pueblo Higher Education, as well as Hopi and Navajo Higher Education programs in a day-long Freshmen Orientation and Career Day sessions, held in Albuquerque, and within each tribal offices.

Outside Professional Activities of Staff Members

Lucille Stilwell:

1. Allocation Panel member of the United Way of Albuquerque, appointed by the UNM Vice-President, 1983-85.
2. Advisory Board, Albuquerque Academy's Community Advisory for American Indian Education, 1985-
3. Advisory Committee member of the UNM Affirmative Action Office, 1983-

4. Search Committee member, Office of School Relations, 1984.
5. Advisory Board member, UNM Women's Center, Albuquerque, N.M. 1983-
6. Advisor, UNM's Lectures Under the Star's Series, Dean of Student's Office, 1985.
7. Presenter, National Indian Education Assocation, Phoenix, Arizona, 1985.
8. Panel member, The International Society for Intercultural Education Training and Research, San Antonio, 1985.
9. Presenter, UNM Dean of Student's Office, Albuquerque, N.M., February, 1985.
10. Advisor, Northern Arizona University's Financial Aid Office, Flagstaff, Arizona, 1985.
11. Advisory Board, UNM Public Affairs Group Committee member, 1984-
12. Delegate, Provost Hull's Special Advisory Committee, to Response to Governor Anaya's Task Force on Higher Education, 1984.

Gerald Gallant:

1. Recruiter, National Indian Education Association, Phoenix, Arizona, 1985.
2. Delegate, Provost Hull's Special Advisory Committee to resonse to Governor Anaya's Task Force on Higher Education, 1984.
3. Liaison to English Department and General College, 1984-1985.

Staff Changes

Ms. Cynthia Begay, Assistant Dean at San Juan College, who is presently on leave and a doctoral students in UNM's Department of Educational Administration, was assigned to Native American Studnet Services during the summer of 1984. Lucille and Ernest Stapleton developed a plan to have Ms. Begay work on an intership arrangement for the duration of the eight week summer session.

Dr. Gallant was hired during the summer of 1984 as an Academic advisor. He continued with our office through the 1984-1985 academic year, on a Visiting Assistant professorship in Native American Student Services and the General College on funds provided by a consortium involving a grant from New Mexico State University, funds from the Office of the Vice-President for Student Affairs with matching funds from the General College.

Ms. Barbara Aragon was hired on January 29, 1985 as a Clerical Specialist V. Ms. Aragon is a member of the Laguna Tribe and had previously worked in her home town of Paguate before coming on campus. She replaced Ms. Edwina Abeita, former secretary, who resigned on December 24, 1984, to work with Native American Studies. Two work-study students were hired during the months of June and July, 1985 to assist with our on-going programming in Freshmen and New Student Orientation and with our regular summer session programming here at UNM. Ms. Betty O'Jaye, a graduate student in the field of Counseling and Ms. Bernadette Chatto, an undergraduate student

and Kiva Club officer, worked with us to meet our prospective and on-campus student needs. An additional work-study student was hired, Ms. Irene Serna, a doctoral student, to work with us on a special assignment in the gathering of on-site teacher trainee's data. Currently, our on-going staff consists exclusively of the Director, Lucille Stilwell, and Barbara Aragon, Secretary-Clerical Specialist V.

If we are to continue the high level of activity that we endeavered to create, both in general service to the Univerity and to the our constituency, and to students individually in tutoring, referral, advocacy, etc., we definitely need more staff and more space. The addition to our staff might take the form of a full-time counselor with a more stable allocation of funds. In any case, we request a reasonable increase in funding to allow us to employ another staff member and supply additional office space and facilities to accommodate staff and students.

The Annual Report of the
Public Services Division
of the General Library
July 1, 1982 - June 30, 1983
Alice Clark, Assistant Dean

A. Significant Achievements

Lawrence Clark Powell, Professor in Residence Emeritus at the University of Arizona and former University Librarian at the University of California, Los Angeles, has defined what he calls "Powell's Law". Powell's Law states that library public services do not need to be funded at any certain level. The need for service will decline to the level of funding. When budgets are cut and services are omitted or decline in quality, the patrons soon stop coming.

The University of New Mexico General Library found out the reverse was true also. During the past decade the General Library made significant improvements as a result of increases in its budgets and increases in efficiency. The students and faculty gradually learned that the Library was responsive and offered good service. The comparable statistics showed these results:

	1972-73	1982-83
Library use (Gate Count)	977,081	1,417,525
Outside Circulation	318,866	366,045

During the 1982-83 Fiscal Year the situation began to be reversed in the Public Services Division as budget cuts and vacant positions forced reductions in services.

Seven faculty positions were unfilled all or part of the past year. While temporary replacements at lower levels sometimes helped out, the main burden fell upon the remaining two thirds of the faculty. In most cases it was not possible to hire temporary faculty since the library's commitment of lapsing funds was to hiring people to convert cataloging records to machine readable form. The results were slower response to the needs of our library users and less efficient and thorough service. This shortage of personnel also had a decided effect on the extra projects faculty usually assume.

The situation was further complicated by extensive sick leave for three library specialists whose work had to be added to a backlog or done by someone else already overburdened. Three new department heads were on duty this year - one hired in the previous June - setting in for her first full year, one hired in early Fall and one transferred from another department until funds are available for a replacement. It is significant that while one of the resigners left to pursue a doctoral degree, each of the other two was hired away by a salary raise of over $12,000. The possibilities of keeping outstanding people becomes increasingly unlikely.

Maximum use was made of people who transferred to other departments or worked part time on other tasks in an attempt to maintain services. Good use was also made of volunteers this year. Without the many hours of work donated by interested people in the community, it would not have been

possible to accomplish some of our projects. Sr. Adrian Trevino regularly donated forty hours per week to work on the Cobos recorded sound collection. This collection of Hispanic Folk Music compiled by Reuben Cobos, a former member of the University Faculty, required editing and indexing, and the work of Sr. Trevino has made this more useful by providing a means of accessing each work.

The project of labeling the books with OCR machine readable labels was also helped by the use of volunteers.

Nancy Ottem donated five months of time toward completion of the organization in opus-number order of all of the compositions of John Donald Robb and completion of an index to this collection. Work was also done by Cataline Gonzales on indexing Zarzuelas in the collection.

The Skills Center was fortunate in receiving 220 hours of service in tutoring writing by Max Moskowitz, a retired businessman, who has a major interest in writing as a result of tutoring he had done while getting his own degree at Queens College.

The name of the division was changed to be implemented on July 1, 1983 from Readers' Services Division to Public Services Division. This change was appropriate because it recognizes that information comes in forms other than print, the new name conforms to that of similar functions in other libraries, and it reduces the confusion with the reading programs of the Skills Center.

During the absence of the Dean on sabbatical during the Spring Semester, the Assistant Dean for Public Services acted as co-dean by also assuming the duties of administering collection development, all public services, the Library's input to capital outlay projects, and the oversight of the administrative office.

AUTOMATION/TECHNOLOGY

DataPhase System: The implementation of the DataPhase automated circulation system proceeded in this past year but at a slower rate than originally scheduled. The Reliability Acceptance Test, originally scheduled for March, 1983, will actually not occur until sometime in the 1983-84 fiscal year. To perform the test the system must be in a fully operational mode. At present it does not appear that the circulation functions at the Zimmerman circulation desk will be automated before January, 1984. The reasons for the delay in implementing the DataPhase system are identifiable and in some cases unavoidable.

1. The scope of the implementation project has been expanded and redefined to utilize the full indexing capability of the system. It was decided to load and index a variety of non-OCLC records. Both the Library's serial records and the entire machine readable files for university students and employees were incorporated into the plans for the Library's database. Most recently

it was also decided to load and to index the tapes of government publication records available from Marcive, Inc.

2. In utilizing the system's capability to load and to index these non-OCLC records, unavoidable delays were encountered in rewriting and in reformatting specific tapes and to eliminate incompatibility problems.

3. Numerous indexing problems were uncovered during the loading of the Library's OCLC tapes. The major problems involved incorrect indexing parameters and duplication of records. While these problems were eventually resolved by DataPhase Inc. and by AMIGOS, the Library was faced with the situation of reloading specific tapes. This circumstance doubled the processing time required to create specific portions of the database.

4. Specific hardware and equipment problems also delayed the implementation schedule. Seemingly every possible failure occurred with the air conditioning unit including power outages, humidifier breakdowns, and water leaks. Since the computer cannot be operated without a functioning air conditioner, failures in the air conditioning unit resulted in a loss of computing time on numerous occasions.

5. Other hardware problems were encountered with the disk drives manufactured by System Industries. An unwarranted number of component failures occurred resulting in additional computer downtime. Delays were common until this situation was corrected.

6. The primary reason for the delay in system implementation is the lack of specific functions promised by DataPhase Inc. Two critical functions, namely the two-hour loan capability and the capacity to retrieve records by the local call number, were not provided with the original software. Only recently were both of these functions supplied. To date, the system is still not capable of passing the full Functional Acceptance Test as specified by the contract. The present system is not capable of performing all of the functions which DataPhase agreed to provide. For this reason, the Library has withheld any further payments to DataPhase as part of the original system purchase.

In spite of the delays in the system's implementation, a number of tasks were successfully completed during the last fiscal year. These accomplishments or activities include:

Software: Most of the system's parameters were entered into

the production passwords. These parameters include a variety of variables for the General Library which control the system's loan periods, fine rates, media types, collection locations, and delinquency thresholds. Several software enhancements were received by the Library during the year including a subsystem which could be utilized for library acquisitions, and one which finally resolved the two-hour loan and the call number retrieval problems.

Records of the Collection: Approximaely 20 reels of machine readable cataloging records (OCLC) were loaded and indexed. These tapes represent most of the materials cataloged by both the General and Law Libraries between 1975 and March, 1982. The March, 1982, to March, 1983, records for the Law Library were also loaded and indexed. In June, 1983, the loading of the current tapes for the General Library was initiated. This tape loading project has resulted in the creation of a database for the system which presently exceeds 400,000 records.

Besides the loading and indexing of retrospective and current cataloging records, the Circulation Department was finally able to load and to index the Library's serial records and the AACR II conversion records. During June, 1983, the loading of the tapes for university student and employee records was started.

During the year, the Library also experimented with a direct interface between the DataPhase system and the OCLC system. While the online interface was less than perfect

since approximately 10% of all records transferred were transmitted incorrectly, the Law Library has decided to use the online interface as part of their regular cataloging routine.

The Circulation Department assisted in the process of editing the database. Specifically, the department was involved in resolving duplicate records, in correcting call numbers, and in processing the system's error files.

Patron and Reserve Records: The Circulation Department started to register library users for the DataPhase system by attaching OCR labels to student ID cards. This pre-registration plan was based on the premise that the university would continue to issue four year ID cards to the students. The reserve desk staff completed the task of entering into the DataPhase system specific professor and course records which will be utilized when reserves are handled online. During June, 1983, new procedures were established for the system to process all personal copies which are part of the reserve collection.

Service to Other Libraries: The original equipment installation included six separate phone lines to the Data General computer. These lines permit remote dial-up access to the Library's database. The interest in this dial-up capability from other libraries and from local research organizations has been significant. By utilizing the author, title, or subject search capability of the system,

individuals from Sandia, NMERI, Signetics or ITRI, for example, can access the Library's database from their own offices. As the database expands, this service will be even more valuable to a larger user group.

Training: Several training sessions conducted by DataPhase personnel, were held for both the bibliographic as well as the circulation aspects of the system. Staff were trained in operating the central site equipment.

Security: Primarily because of air conditioning failures, the Library purchased additional equipment to safeguard the computer facility. A 24 hour temperature/humidity alarm system and a water detection system were installed and connected to Ford Utilities' monitoring system. Both of these protection systems have already proven their worth. On several occasions, the alarm systems were activated during early morning hours, and the personnel at Ford Utilities promptly notified the Assistant Head of the Circulation Department who quickly responded to the calls to shut down computer operations.

Additional disk packs were also purchased to create a fourth copy of the Library's database. Besides the master packs, three copies will be updated on a regular basis and stored outside of the computer room. Each back-up set is updated on a rotating schedule.

Labeling: Since the DataPhase system is based on the machine

scanning of OCR labels for the charging and discharging of library materials, each library item which circulates must have an OCR label. This resulted in a massive library-wide project in which all employees and many volunteers helped to place these labels on most of the books in the Zimmerman Building.

Publicity: As part of the Library's publicity program to release information about the DataPhase system, a number of system demonstrations were held for the following groups or individuals:

Albuquerque Rotary Club
Middle school students
AFWL
University of Albuquerque
Council of Deans
Highlands University
Faculty Senate Library Committee
APS Technical Processing Group
8 librarians from medical facilities
Head of Circulation, Medical Library

Besides these demonstrations, the DataPhase system was also featured in two stories published in the Lobo. The labeling project also received some local publicity by the Campus News and by Channels 4 and 13.

Equipment: Other new equipment included IBM terminals to the Accounts Receivable System which are also useful in using VSPC and SCRIPT for preparation of instruction exercises, reports and research results.

A proposal was made to the UNM Foundation to purchase a video

player and monitor for the Video Archive in Special Collections. This Archive now contains 66 tapes of material originally telecast on KNME and covering subjects of historical significance to the University, the community, and the state.

A xerox model 9500 was purchased on a lease purchase plan. Two of the photocopiers which had been rented were also purchased this year. Even though the Copy Center had an overall budget of $255,700 due to the implementing of a 10% overhead assessment by the University very little upgrading of equipment could be done. This account which had previously been managed in a way to replace worn out equipment on a regular basis will now be seriously hampered. The only way to control increases in cost as this service expands is to increase productivity with new technology. Without that option prices will have to increase and the primary function of protecting the collection from mutilation will be less effective. A total of 7,179,900 copies were made this year.

The Library received in December its second Kurzweil Reading Machine as part of a grant program sponsored by the Xerox Corporation. A second piece of equipment was donated by NEICA. This gift was an optacon which is a tactical device used for hand scanning of printed materials. The optacon complements the KRM in that it is capable of reading certain printed materials, such as graphs and formulas, which the KRM

is unable to scan properly. The KRM was demonstrated to Public Service Company of New Mexico, the Albuquerque Rotary Club, to a class of special education majors, and to two sections of an engineering class. The KRM was also featured with the Library's other equipment for the visually handicapped during UNM Legislators' Day. Stories about the KRM appeared in the Campus News , in the New Mexico Sun and in the Lobo.

SPACE

A major step was made toward solving the General library's space problems when the State Legislature passed bills funding the proposed Science/Engineering Library and allocating funds for planning a new Parish Memorial Library as part of a Social Science/ Management School complex. Since the space recommended for both facilities by the BEF was inadequate for the functions to be performed, a great amount of time was spent in justifying to appropriate administrative bodies the need for expansions in the size of both of the proposed buildings. While no decisions were reached to solve this problem, suitable compromises appear to be under consideration. We are hopeful that these two facilities will be built in accordance with the need, that the recommendations of two consultants will be accepted, and that space in Zimmerman will thus be freed for growth in all of its collections and services.

The Parish Library is clearly the most serious space problem. The most acute need is for more seating space for the ever increasing number of library users. Unfortunately the situation got worse as the collection grew and more shelving was required. Since the required free space in each section was not available, every time the collection grew, massive shifting of the whole collection had to be done. When shelving is so tight, even a statistically insignificant increase in materials in one area may require major adjustments. This results in an expensive waste of personnel time. The proposed space addition recommended by the BEF will not be much help since the amount of space will not even hold the existing collection. It will, however help the study space shortages.

The Fine Arts Library is in a similar situation with inadequate shelving space for materials and inefficient layout which requires moving books and other materials to different levels without elevator access.

The Skills Center has made maximum use of its space and demands for service continue to grow. While it would be appropriate to move this service to another building, there are possibilities of expanding in Zimmerman if science library service moves to the proposed new facility.

The new science/engineering library building will also help to solve a very severe problem of space for the Government Publications and Maps Department. This collection

which continues to grow in its paper form also grows rapidly in microform. There has not been a decline in the book form to correlate with the increase in microforms since GPO is now sending in microform new materials not previously deposited. The working space for staff is totally inadequate.

The increase in interlibrary lending - some months as much as 100% - has made their office space problems acute. No solution seems to be available until the NEH project is completed in January, and that office is available for expansion.

A special purchase of shelving during the previous year permitted the addition of ranges in Tireman Learning Materials Library, in the Parish Library, and a large number of ranges added in Zimmerman. Massive shifts of the Zimmerman collection into the new ranges relieved the crowding in rapidly expanding areas. Another huge move brought to Tower Level 9 some of the materials in North Storage which need a better temperature environment.

The transfer of the special education collection from College of Education to the Tireman Learning Materials Library resulted in a fine acquisition to meet the needs of both special education students and local teachers. It did, however, result in an even more crowded facility. The security problem in this library also became more serious since these materials are unusually vulnerable to theft. An expanded and remodeled space is necessary.

SERVICES

During the year several presentations were made by Public Services Librarians to the Faculty Senate Library Committee. This updated the committee's knowledge of the Skills Center, the automated circulation system, and on the use of microforms in the library. It is important that the University Faculty be aware of the variety of services so that they can communicate this to their students and so that they realize the necessity for the funding of personnel as well as the development of the collection.

Cooperative arrangements were made with several libraries and museums including the Albuquerque Museum, the Phoenix Art Museum, the Museum of New Mexico, and the UNM Art Museum. Pleasant working relations have been created with the New Mexico Committee for the Promotion of History, the State Records Center, the Albuquerque Museum and the New Mexico Historical Society. The collection of framed photographs by Danny Lyons was transferred to the Fine Arts Museum under an agreement which will increase its visibility and use.

A visiting professor, Esther Nelson, from Western Illinois University, took her sabbatical here, examining the various data bases.

Government Publications: The Government Publications and Maps

Department received a rating of "Excellent" in eight out of nine categories on the "Report of the Inspection Visit" of the representative from the U.S. Government Printing Office. The only category that was an exception was "space", a general problem in this library. Part of the reason for this improved rating is a result of the fact that GPMD has done such a fine job of fulfilling its responsibility as a regional depository. Two New Mexico Consolidated Exchange Lists were circulated and the Newsletter continued to alert users about new materials.

Special Collections: The focus of work for the Special Collections Department has been the processing of manuscript collections in order to provide access to this wealth of material for researchers. The United States Senatorial Papers of Peter V. Domenici, Harrison Schmitt, Dennis Chavez and Joseph M. Montoya have received much attention from the staff. Additions to the papers of Senator Pete Domenici and Senator Harrison Schmitt were received as were additions to the papers of Congressman Manuel Lujan. The John Gaw Meem Architectural Collection acquired many UNM building plans from the University Architect's Office. Because of the collections, many years of work will be needed to complete the processing. The staff, depleted as it was, made significant progress. Processing of the following collections was completed this year:

United States Marshall's Papers
Japanese War Crimes
Southwest Library Assn.
New Mexico Health Foundation
Water Quality Control
First Nat'l. Bank of Santa Fe

Ernest Warren Baughman
University Faculty Wives
American Association of
University Women

Bainbridge Bunting
Dane Farnsworth Smith

Skills Center: The Skills Center continued to provide services to students in the University Skills Program and to students in freshman English and Math courses and added services included students in Math 180 and Math 181. These two calculus courses are required of all Anderson School of Management undergraduate students as well as some Arts and Sciences students. This expansion of services resulted in more than 2600 students being served by the Center with more than 12,000 student contacts being made.

A writing lab was opened by the Center to provide practice in writing skills without the time limits of tutoring. The lab was open twenty hours per week. Other students besides those enrolled in English 100, 101, or 102 were allowed to use the lab as time was available.

During July and August, 1982, the Skills Center was designated as the academic advisement center for General College. More than 350 students were advised and information about General College programs was given to 150 other inquirers. In addition to the services provided at the Skills Center, the advisement staff spoke to Mountain Bell employees and to interested persons at Coronado Shopping Center.

While the Skills Centers successes were gratifying, a problem has appeared which is the focus of serious concern. Students in courses not served by the Center are requesting that they too need help from its study skills and tutoring services. Following are statistics on the numbers requesting academic support services:

	Fall '82'	Spring '83'
Biology 110	12	7
Biology 121/122	32	18
Chemistry 111	17	12
Chemistry 121	57	32
Accounting (ASM)	12	3
(General College-Communication Skills)	0	8
Economics 200	15	8
Mathematics 111/112	15	9
Computer Science 15	13	7
Sociology 110(for math help)	12	4
Home Economics 125(Nutrition)	7	2

As a result of this situation, a proposal was written to the Provost asking that funding be committed to provide for these students.

Online Search Service: Online search services continued but experienced a small decline in volume. A new, higher fee was implemented which may have had some impact. It is the philosophy that the University will subsidize this information service but that the users of the service will pay a fee to demonstrate that its use is really needed. Graduate students continue to be the most frequent users of the service; over half (approximately 56%) of the requests came from this group. Faculty accounted for 16%, staff for

11%, undergraduates for 10%, Friends of the Library for 5%, and others for around 2%. Of the citations retrieved online, 269 were requested through Interlibrary Loan indicating that this Library did not have the materials. Data bases were also used 137 times during the year to answer reference questions, a service which is used only when other sources are exhausted, but which is essential when information is needed on very recent events.

Twenty-nine librarians received online training beyond the basic level in sessions on Biosis, Medline, Excerpta Medica, Mathfile, Compendex, and others. Seven people received the basic DIALOG training during the year. Fifteen search demonstrations were provided for visitors or classes.

Document Delivery Service: The Document Delivery Service continued to serve businesses and agencies who wish extra services not regularly supplied and who are willing to pay a fee which covers the cost of the service. Ten new contracts were signed and requests increased 6.7%. The service was successful in obtaining the document needed 99.2% of the time.

Library Orientation and Instruction: Library Instruction statistics indicate a drop in the number of students and others receiving a tour or a class lecture:

	1981-82	1982-83	%Change
Classes	1081	1604	+48.
Students	14,110	10,250	-27.3

Some of this decline is the result of the fact that the Reference Department no longer provides instruction to the English 101 or Biology 121 classes. The program for instruction in use of the library has never been recognized by increased funding, and it is therefore vulnerable when staff shortages occur. Nevertheless quality, indepth instruction is still offered to support many specific courses. Class lectures continue to be offered in such subjects as international management, marketing, music theory, music history, color and design, graduate art bibliography, architectural design, research methods in public administrative, sociology research and non-fiction Indian literature.

Research: The Public Services Division was involved in several research efforts. A study was completed of the Council of Academic Research Libraries in AMIGOS (CARLA) to determine the volume of use of their memberships in the Center for Research Libraries (CRL) in Chicago. The study was designed to compare the cost/benefits of this rather expensive membership in view of the reorganization of CRL's services.

A method for collecting and tabulating statistics on reference questions was the basis of an experiment. A machine readable form was developed which could be adapted to most of the service areas and tabulated on the computer for comparisons of such elements as time of day, type of question, type of personnel answering, and day of the week.

The data is useful in making staffing schedules as well as offering comparisons over time.

The Fine Arts Library was a participant in a study by Tantalus, Inc. of Cleveland, Ohio. This study was attempting to create an econometric model using library activity statistics and funding levels to determine "Apparent Reserve" or "Overload". Not surprising was the report that they found the Fine Arts Library supporting an overload of 146%.

In anticipation of the severe funding problems for FY 1983-84, a survey of both faculty and staff was conducted at the end of the Spring Semester. The questionnaire asked the respondents to indicate their priorities for library services. Results clearly indicated that support for the purchase and processing of materials had the highest priority and that public service functions were relatively more expendable. Since the results were tabulated by the department or major field, the results took into consideration that certain areas require special services, e.g. Music Department's need for the Listening Center. Results were used to cut or eliminate those things considered frills, e.g. exhibits and new book shelves.

B. Significant Plans and Recommendations for the Near Future

New Library Facilities: The Public Services Division will support the Library's efforts to increase the amount of space

allocated for the Science/Engineering and Parish Libraries. They will also be involved in examining architect's preliminary plans and in planning equipment and staffing needs.

Automation of Circulation: During the coming year the automation of circulation in the Zimmerman Library will be implemented. The Reserve Service will serve as the first model for use of the ALIS system. Entry of patron records and on-the-fly book records will continue as the system is used for the circulation functions.

Equipment Needs: Of highest priority is the need to work for funding of necessary equipment. Further development of the DataPhase ALIS system requires more storage space in the form of a fifth disk drive. The system also needs an isolation transformer to regulate the power supply to the computer room so that power surges are eliminated. If the system is to be expanded to the branches of the General Library and other Zimmerman locations, more terminals and telecommunications equipment is needed.

While the anticipated opening of the new library facilities is seen as a help in space needs, the growing collection has to be shelved now if it is to be used. The second phase of the request for additional shelving for Zimmerman should be funded. Lack of sufficient shelving is very expensive in personnel time for shifting the collection as new materials arrive. This is especially acute in serial areas.

The state of the Listening Center will also be addressed as its function depends on constant repair and renovation. It has been several years since a major overhaul took place, and constant breakdowns and a fall off of sound quality are occurring.

Microcomputer Technology: The library as a whole needs to continue its use of automation. The Skills Center will be completing a grant proposal to acquire several Atari microcomputers for use in individual instruction of students. This technology will lend itself well to the preparation of materials used in the tutoring functions of the Center and be useful to other students as scheduled time permits.

Microcomputers are also being used by many libraries and archival centers to control and index manuscript and archive collections. This kind of equipment would be much more efficient and effective than present practices.

Document Delivery: The need for this service appears to grow steadily. Even though we offer regular library services to the public, special retrieval, translation and delivery services are requested by agencies who expect to pay for such services. We recognize the need to supply such service as well as to protect campus users from competition for priority. Fees charged to cover this service free existing personnel for their primary responsibility for serving the

faculty and students. These fees appear to be sufficient to hire additional personnel during FY 1983- 84. We should hire at least one more student assistant.

Skills Center Expansion: It is recommended that the Skills Center continue to expand its services to more UNM students. The next areas of expansion should include (1) providing support services to students in regular entry level natural science courses, and (2)the development of study skills courses offered for credit. Providing academic support services to students enrolled in Chemistry 121 is also a top priority for future expansion. A proposal will be prepared to address the problems of student demand for more tutoring services.

Southwest Cultural Research Center: The General Library has already submitted an outline for coordinating all New Mexican and Southwestern materials in a remodeled Zimmerman west wing. This would centralize service for greater efficiency, provide better security and create space for campus and community events related to these research materials. During the coming year, a position paper will be prepared which will outline the details of this proposal.

Services for the Disabled: Public Service Division personnel will be seeking grant funds for automatic door openers for the Zimmerman Building. This type of equipment will also be requested for proposed new facilities.

Preservation: We plan to give more attention to the preservation of library materials during the coming years. Procedures and equipment for deacidification of paper, vacuum-chamber freeze drying and fumigation will be studied.

C. Appointments to Staff

Anita Albright	CS IV	11-15-82
Tawfik Alkhoudairy	LTA II	8-16-82 Temporary
Ruth Bernstein	Temporary Instructor	7-1-82 Temporary
Eulalie Brown	Assistant Professor	10-4-82
Sandra Erickson	CS I	10-27-82 Temporary
Joanne Gomez	LTA II(.50)	9-13-82
Raul Huerta	Instructor	8-1-82
Geraldine Jacobson	LTAII	5-16-83 Transfer
Paul Landenberger	Assistant Professor	12-8-82 Transfer
Carlotta Medina	CS III	10-25-82
Esther Nelson	Visiting Scholar	1-17-83 Temporary
David Null	Assistant Professor	12-6-82
Nancy Ottem	LS I	10-1-82 Temporary
Laura Roybal	CS III	8-30-82
Eileen Schroeder	Instructor	1-3-83
William Tydeman	Visiting Instructor	8-9-82 Temporary
Timothy Wehrkamp	Assistant Professor	1-3-83
Margaret Waters-Parmer	CS III	10-20-82

D. Separations from Staff

Anita Albright	CS IV	5-13-83
Tawfik Alkhoudairy	LTA II (.50)	11-16-82 Temporary
Nancy Ashley	Visiting Instructor	8-27-82 Temporary
Wilson Belvin	LTA (.50)	4-27-83
Ruth Bernstein	Temporary Instructor	8-20-82 Temporary
Martha Buck	CS III	7-16-82
Donald Farren	Associate Professor	9-30-82
Ted Greer	CS IV	10-29-82
Bonny Hilditch	Instructor	3-25-83
Nancy Carol Hutchins	Instructor	6-30-83
James Jacobs	Instructor	8-17-82
Geraldine Jacobson	LTA II	6-30-83 Transfer
David Kurasch	LTA I	8-22-82 Temporary
Paul Landenberger	Assistant Professor	2-28-83
Theresa Lopez	LTA II (.50)	12-6-82 Transfer
Beverly Moreno	Visiting Instructor	2-28-83 Temporary
Esther Nelson	Visiting Scholar	5-15-83 Temporary
Francis Oscadal	Instructor	8-13-82
Nancy Jane Ottem	LS I	12-31-82 Temporary
Ernestine Paniagua	Instructor	6-30-83
Judy Pence	Instructor	7-22-82
Laura Roybal	CS III	10-8-82
Carol Simmons	LTA II (.50)	9-10-82
William Tydeman	Visiting Instructor	1-31-83
Elani Walden	LTA II	9-2-82
Margaret Water-Parmer	CS III	12-29-82

E. Sponsored Research or Other Projects

a. Three proposals for funding were submitted to outside agencies. This represents 12.5 percent of the faculty.

b. One proposal was funded. This represents 4 percent of the faculty.

Public Services Statistics

	1981-82	1982-83	% of Change
Libray Use (Gate Count)*	1,419,252	1,417,525	- .12
Zimmerman	1,130,945	1,134,988	+ .36
Parish	168,607	166,832	- 1.05
Fine Arts	119,700	115,705	- 3.3
Outside Circulation**	350,754	366,045	+ 4.3
Circulation***	363,962	379,224	+ 4.2
Zimmerman	261,096	272,511	+ 4.3
Parish	23,381	27,706	+ 18.
Fine Arts	43,319	39,459	- 9.
Listening Center	12,329	12,166	- 1.3
Tireman	22,958	26,369	+ 14.8
Evaluation Center	879	817	- 7.
Review Center	---	196	---
Reserve Circulation	81,650	89,507	+ 9.6
Zimmerman	60,864	67,579	+ 11.
Parish	8,418	11,039	+ 31.
Fine Arts	12,368	10,889	+ 11.9
Interlibrary Loan	8,668	10,301	+ 18.8
Borrowed	3,582	3,872	+ 8.
Lent	5,094	6,429	+ 26.2

* Does not include Tireman

** Includes interlibrary loans and reserve but does not include Listening Center, Evaluation Center or Review Center.

*** Includes all recorded circulation.

The Annual Report of the
Public Services Division
of the General Library
July 1, 1983 - June 30, 1984
Alice S. Clark, Assistant Dean

A. Significant Achievements

The year 1983-84 turned out to be one of wide variation in accomplishments swinging from the depths of service cuts due to a four percent budget reduction to the heights of progress in new facilities, automation and other special projects.

At the beginning of 1983-84, the Public Services Department Heads instituted a retrenchment program brought about by the University-wide budget cuts. As a result of a survey of both faculty and students it was discovered that the priorities of the Library's users were fairly consistent. To adjust to the freeze on hiring and the reduction in personnel, the following reductions in service were instituted for the fiscal year:

Reference Services

1. The main reference desk in Zimmerman was staffed with only one person during the less busy times of the day.

2. The reference phones were limited to one line during periods when waiting lines occurred at the reference desks.

3. Automated online searches for off-campus users were not publicized.

4. The Ethnic Studies services were provided at the main reference desk with referrals to subject specialists when they were available.

5. No reference service was offered on Saturdays in either Zimmerman or the branch libraries. Student assistants were on duty in Parish, Fine Arts, Tireman, and the Zimmerman Microform Area.

6. The Fine Arts reference desk was staffed only from 10:00 a.m. to 2:00 p.m., Monday through Friday. Reference librarians were on call at other times.

7. The Fine Arts telephone reference service was limited to questions requiring brief answers.

Library Orientation and Instruction

1. No new instruction programs were proposed.

2. Existing instruction programs were continued with minimal changes in the curriculum.

3. Tours for school groups were for high school seniors only. The School Relations Office was asked to handle others.

Library Hours

1. The open hours for Zimmerman, and Fine Arts became 90 hours per week instead of 103.

2. Parish Library opened at 9:00 a.m. instead of 8:00 a.m. on Monday through Friday.

3. The Special Collections Department continued to be open on Tuesday evenings but closed on Wednesday evenings.

Maintenance of Archives and Manuscript Collections

1. The processing and inventorying of the senatorial papers were limited to preservation and brief content lists. Full processing was postponed.

Other Special Services

1. The exhibit program was discontinued except for Homecoming, Commencement and important special events.

2. Library participation in special events was drastically curtailed.

3. Taping of music materials in the Fine Arts Library was for course use only.

4. No outside publicity to the off-campus community was done on services for the handicapped.

5. No outside publicity was done toward expanding the document delivery system.

6. The display of new books was discontinued.

The instruction program in the Library was reduced as much as possible in order to adjust to the staff shortages. The comparable statistics show the results:

	1982-83	1983-84	% of Change
Classes	1,604	934	-42%
Students	10,250	8,666	-15%

At the same time demands from off-campus groups could not be totally ignored. As a result tours or presentations were given to 63 outside groups including 882 individuals.

Since tours to upper level high school students contribute to recruitment of the coming year's freshmen, every effort is made to respond to the requests from high school teachers.

In spite of these serious problems, the Public Services Division did move ahead in many areas. During the Spring semester a special effort was made to work on various special projects designed to make information more manageable and more accessible. Allotments of released funds were made to several departments for these projects and volunteers used to extend the allotments.

Several Public Services librarians and staff as well as personnel from other divisions contributed to the local arrangements of the New Mexico Library Association Conference held in Albuquerque this year. The conference was judged to be most successful and raised more than twice as much money for the association program as raised in previous conferences.

Automation of Circulation

On November 14, 1983 the DataPhase Automated Library Information System (ALIS) became operational at the Reserve Desk in the Zimmerman Library. This limited use refined the procedures for registering patrons and permitted further training for and practice by the circulation staff.

The main circulation desk followed this successful test with full automated service beginning on March 12, 1984. The positive impact of this automation circulation function has been immediate and substantial. As a result of personnel funding being reallocated to provide extra student employees,the start up of the system proceeded smoothly. Immediate benefits were the increased convenience for patrons in charging and renewing materials and in timely overdue notices, location information on materials, rapid discharging and rerouting of returned books.

Management of the system in its early operations was complicated since employee and student identification records needed to be entered, varied policies on loan periods for different types of materials were profiled for notices, and security systems for back-up data packs had to be worked out. The data base was updated to include all of the cataloged holdings in the Law and Zimmerman Libraries from 1976 to April, 1984. In April, the loading of updated OCLC tape was discontinued until additional disk drives could be obtained. By July these were on order and expected to be installed during Fall Semester.

During the year, the Data General and System Industries equipment proved to be very reliable. New software updates in ALIS included an electronic mailbox function, first release of a Public Access Catalog including an author/title search capability, a new item status maintenance function, new reports, new call number displays, and new overdue notices. However, the statistical reports are still very inadequate and do not yet provide needed management information on types of materials

lent to various categories of patrons. Contract discussions were held with the DataPhase Company management but final payment for the system awaits the complete software as listed in the contract.

Use of the dial-up search system on ALIS expanded as more libraries and individuals took advantage of their capability to search our collection on their own terminals. These users included not only faculty and students but also the Air Force Weapons Lab, BDM Corporation, the VA Hospital and Signetics. The increasing use of the General Library by the off-campus public was demonstrated by the first item charged out on the system which was to the Sandia Laboratories Technical Library and appropriately titled Electron Transport in Compound Semiconductors.

Interlibrary loan requests from other libraries increased fifteen percent primarily via the OCLC system. On-campus requests dropped slightly. The version III enhancement on the OCLC system improved the processing of requests by eliminating some of the repetitive keying of data elements.

Document Delivery Service

This past year the Document Delivery Service experienced a rapid growth in its operations. While the service has increased each year since its creation in 1980, this year's expansion was the most dramatic yet. This year's growth was caused by a 25% increase in requests submitted by Sandia Technical Library and by new contracts being signed by additional customers.

In 1983/84, eight new contracts were established. These new clients

include the Air Force Weapons Lab Library, Dikewood, EMA Inc., Hall Engineering, NEICA, a private researcher, PNM-San Juan, and Scott Science and Technology. The total number of active contracts for 83/84 is 17. During the year both Access Innovations and PNM, Albuquerque cancelled their contracts because they no longer needed the service. With the new contracts and with the increase in the number of Sandia requests, the Document Delivery Service handled 1,695 more requests (31.7%) than in 82/83. One part-time student worker was added to the Document Delivery staff on a temporary basis. Not surprising with a larger customer base, the Document Delivery Service realized higher revenue while maintaining an impressive completion rate of 99%. Of the 7,036 requests submitted during 1983/84, 6,966 were successfully completed.

During the past year, the Document Delivery Service supplied requested materials from within the General Library's collections 37.9% of the time, a slight drop from the previous year's percentage. It is apparent that at least 60% of the time, the Document Delivery Service must use an outside source to fill a request for the clientele. OCLC continues to be the major source for locating outside supplier with DIALORDER vendors (including the British Library Lending Division) supplying 17.3%.

Fine Arts Library

The Fine Arts Library suffered during the first half of the year as the result of the transfer of the head of the department to the administration of the Special Collections Department and illnesses among other

staff members. However, several major projects were taken on:

1. John Donald Robb Complete Works - It became evident a couple of years ago that the complete works of John Donald Robb needed to be organized so that people could have access to the material without having to search through the many sizes, shapes and forms of the original compositions. It was decided to prepare a complete works edition from John Donald Robb's manuscripts which would place all of his work in one size and in logical order with all necessary indexes. The scores were cleaned and photocopied and title and contents pages prepared. The complete set will include nineteen volumes of two-hundred pages each with indexes and a complete discography. Two volumes were completed this year and a presentation on the project was made at the annual conference of the Mountain-Plains Chapter of the Music Library Association. The importance of the project is two-fold. First, it brings together in one location and format, all of the compositions of the composer. This greatly facilitates access and preservation. This type of organization of the works of an important regional composer is a responsibility that a research library needs to assume.

2. Mountain-Plains Chapter/Music Library Association Conference- The General Library hosted the Seventh Annual Conference of this association with the Fine Arts music staff handling local arrangements. The two-day conference featured excellent papers on music librarianship. The program drew together members from the thirteen-state region and provided UNM librarians an opportunity to renew contacts and continue cooperation within the region.

3. New Mexico Artists Archive - Under the supervision of the Assistant Head of the Fine Arts Library, a project was begun which will bring together widely scattered information on New Mexico artists. The goals for the project include:

    a) to acquire, evaluate, and arrange material on New Mexico artists;

    b) to determine policies and procedures for the administration of the Archive;

    c) to make provision for putting the information on-line and

    d) to make recommendations for the maintenance and continuation of the project.

    Goals a) and b) were activated during the period. The completion of the project will provide access (on-line) to information which is requested daily concerning New Mexico artists and which has never before been accessible.

4. Computer Index of the John Donald Robb Archive of Southwestern Music- This project begun several years ago, reached the point where the indexing was ready for the building of an automated data base. Using SAS-FSP, a program was prepared to include data format, an authority file and a retrieval strategy. Sample input of data permitted testing of the system, and it is now ready for the actual input of the records. When it is completed, this will be the largest archive of Southwestern Music and greatly extend access to the collection.

5. Operations Manual - Through the efforts of three operations supervisors under the direction of the Assistant Department Head, a comprehensive operations manual for the Fine Arts Library was prepared. The manual includes precise policies and detailed procedures for the operation of the Library. Final revision is underway.

Government Publications and Maps Department

Besides the regular service provided by the Department, the small staff of this unit made major steps in expanding and improving their operations. On December 20, 1983, the U. S. Commissioner of Patents, Gerald Mossinghoff, designated the University of New Mexico as the 46th Patent Depository Library in the network of public access and assistance points maintained throughout the country by the Patent and Trademark Office. On January 6, 1984, the Commissioner visited the Library in conjunction with Senator Harrison Schmitt who has been particularly interested in this development. This major improvement to the General Library was the result of taking on extensive extra work by the Government Publications and Maps Department. A proposal for the move was made during the Fall Semester and coordinated within the Library. After January 1, 1984 as we began to receive the 16mm. microfilm reels which are full copies of all patents issued by the Patent Office, efforts were made to purchase an additional ten years towards the eventual twenty years backfile expected for a Patent Depository Library. Training efforts for the staff included attendance by the two librarians at instruction sessions at the Patent Office on the use of CASSIS, the online database for Patents. One librarian also attended the Patent Office week-long annual training conference.

The Government Publications and Maps Department has finally been able to assume the full obligations of a regional depository on a current basis. The responsibilities for exchanges of materials from partial depositories and the provision of regular interaction among the various libraries had been neglected by both the State Library and the UNM General Library for many years. In recent years we had assumed the statewide responsibility and made progress in distribution of a newsletter and exchange of lists of discarded items. However, the large backlog of this work had made it impossible to get on a current basis. As the result of a special allocation, extra personnel was provided for several weeks so that the exchange lists are current. A similar backlog of New Mexico documents was was also processed and brought under control.

The Map Room section of the Government Publication and Maps Department was able to continue to provide a good instruction and out-reach program. This included tours for groups from TVI, the public schools, New Mexico Tech, and the Albuquerque Public Library as well as the instruction sessions for Geography Department classes. Three bulletin board displays were prepared: Antique Canadian Maps, Another Look at Mars, and Scale at a Glance.

William J. Parish Memorial Library

The acute need of the Parish Library for more space was addressed this year with some satisfactory or promising results. The Head of the Parish Library was able to negotiate more space on the second floor of the Anderson's School of Management Building which was converted to a remote storage area. Materials not in frequent use can be easily paged when needed. The space can also be used as a workroom area. A large amount of time was devoted to the completion of planning for the proposed new library which was approved by the State Legislature for a public bond issue to be on the ballot for

the November, 1984 election. Plans developed by the Hutchinson & Brown architectural firm provided the space requested but required a rather convoluted organization to meet the needs of the required services.

The staffing at the Parish Library was increased by the transfer of a faculty line from the Zimmerman Library. This position to be filled for FY 84-85 plus the expected upgrade of existing positions made the prospects for next year look brighter.

The retrenchment expected in the bibliographic instruction program by eliminating the Introductory Management classes failed to occur due to the increased demand for more library use lectures for upper division classes. Community outreach activities continued to increase the use of the library to the off-campus public. An interview with the librarian resulted in an article in the Albuquerque Journal and a workshop on Business Reference Sources was presented to northern New Mexican librarians. As word spreads about the services and materials Parish can provide, reference and circulation use of the facility increases.

Reference Department

The Reference Department completed a special project to reclassify bibliographies in the Z classification to appropriate subject areas of the classification schedule. This resulted in moving many books from a group comprised of many kinds of bibliographies to the shelves with like materials e.g., a bibliography on railroads will now be with other books on railroads and transportation. This will be a much more useful access for library users. The project also resulted in a reexamination and inventory of the whole reference collection. The microfilm collection was also inventoried.

The number of online searches declined this year, down from 618 to 526. This is, however, probably not so much as a result of the 4% reduction in funding as our failure to publicize the service and make graduate students aware of its uses. An Online Taskforce was set up to coordinate online searching throughout the General Library. This activity is no longer centralized within the Reference Department and may need to be coordinated among a broader group to resolve variations in policy and procedures. Since the online search requests have decreased, about 15% in the past two years, a major charge to the Taskforce will be to publicize and expand the service. It is true that search services in other academic libraries have found their numbers leveling off or increasing only slightly, but many are already providing more searches than we are, and few are actually declining. As soon as the Reference Department is at full staff, we need to develop a program to reach more of the faculty and graduate students who may need the service.

We continued to hold sessions for basic searching and data base training at Zimmerman in order to take advantage of the fact that some of our staff were thus admitted without cost.

The library use instruction by the Reference Department also declined as a result of staffing shortages due both to frozen positions and a resignation.

The Tireman Learning Materials Library continued to have extensive losses of materials. Until a secured area and a single entrance/exit is available, there cannot be a real solution to the problem.

New outreach programs were set up to extend the use of the Carr Collection of bilingual materials through cooperation projects with the Pan American Roundtable and the Albuquerque Public Schools.

The Tireman Library may be in danger of losing its role as a state textbook evaluation center due to criticism of the lack of space, security and microcomputers.

Skills Center

In spite of the budget cuts and resulting reductions in staffing, the Skills Center served 2925 students during the academic year. This was an increase of 21% over the previous year. Lack of tutors required that students seeking help could only have two appointments per week rather than three. Some efficiency was gained by restructuring the writing program as a writing lab in which students could get more practice in individualized writing rather than small group or tutorial sessions.

During the year the directors of the various tutoring centers on campus met and wrote a proposal to combine these services under a more standardized and centralized tutoring service.

In November the New Mexico Chapter of the Western College Reading and Learning Association held its annual conference on this campus with the Head of the Skills Center as conference chairperson.

Special Collections

In addition to its collection development duties, the Special Collections Department continued its efforts to organize manuscript and archive collection and preservation activities. Guidelines for access to the Domenici papers were negotiated. Sorting, arranging, inventorying and cataloging of the Lujan, Montoya and Chavez papers continued. The processing

procedures have been formalized as part of a project to develop a complete manual for processing archives. Records are now being entered into an automated system but lack of a terminal has seriously hampered the process. A grant proposal was prepared and submitted to the National Endowment for the Humanities U. S. Newspaper Project.

B. Significant Plans and Recommendations for the Future

The primary goal for the Public Services Division will be to reinstate all of the services and hours of opening which were curtailed this year due to the 4% cut in budget and the resulting shortage of staff.

Improvements are also sought or planned for in space expansions, new equipment, increased service and access to the collections and in preservation activities to conserve fragile library materials.

Space and Equipment

Libraries have a constant problem of trying to keep up with the expansion of space and the replacement of equipment. In spite of the shorter hours the libraries had during FY 83-84, there were still over 1½ million people who used the various facilities of the General Library. This number of people using the equipment means that chairs wear out, recording equipment collapses, and microform readers break. A major effort must be made next year to replace hundreds of chairs in public areas. These chairs are broken or are in danger of injuring students who use them. With so much material now coming in microform, it is necessary that many of the readers be replaced. The sound equipment in the Fine Arts Library is in serious condition with several tape players out of use and the system needing a total overhaul.

At the same time growing collections require more space, additional shelving for books and more cabinets for microforms and maps. Some relief is expected when the Science/Engineering Library opens in 1986 and when the new Parish Library is available a year or two later. A new position for a Planning Coordinator for the Science/Engineering Library was obtained. Next year a great amount of time will be spent in planning services, deciding necessary location changes on materials, ordering equipment for the Science/Engineering Library and other activities toward the opening day for the new library. It is hoped that the hold-up on the proposed Parish Library and on plans for an Education Technology Building will be solved and progress will be made to take care of the space needs in Parish and Tireman Libraries. In the meantime, more map and microfiche cabinets will be needed in Zimmerman. Some rearrangements in space will be necessary to create more offices for the growing government publications and new patent services. Some provision must be made to move the Head of the Reference Department to a more accessible location.

Plans are also underway to seek funding for obtaining microcomputers. The Parish Library will receive one as a gift and will be moving ahead on staff training and plans for optimum use of the new micro. The Government Publications and Maps Department is seeking a grant from the University Foundation for a microcomputer which will provide online searching of the CASSIS data base in the United States Patent Office and assist in the statewide service on patents. A grant is being prepared to seek LSCA funds from the State Library for two terminals to be used in a joint program with the Albuquerque Public Library. This proposal will provide access for each library to the circulation data base in the other library. This

should improve the referral service between the libraries. The Special Collections and Reference Departments are also seeking outside funding for microcomputer equipment. The Skills Center will be implementing the education use of the Apple IIe now on order and seeking a microcomputer to use for student records on the University system.

The General Library hopes to upgrade and modernize some of its photocopy equipment during the coming year on a plan to replace all obsolete equipment within three years.

During the coming year, the ILL section hopes to take advantage of the new micro enhancer offered by OCLC. This new micro-based technology is needed to cope with the increase in lending requests since it is capable of streamlining the ILL work procedures.

Access and Services Improvements

All Public Services Departments plan to increase systems which help library users to find needed materials. Plans and activities for the future include:

1. On the circulation system additional functions and more refinement of the software are needed and should be forthcoming from DataPhase in the Fall of 1984. The system in its present stage can be expanded to the branches of UNMGL as soon as additional terminals are purchased and the two new drives are installed. A major system expansion which would include a public access catalog for UNMGL would require a larger computer and a substantial capital outlay on the part of the Library and the University. A test for public access terminals in the Fine Arts Library is planned.

2. The Special Collection Department plans to prepare more detailed plans for the development of a Southwest Research Center, implement more efficient and effective procedures based on the new departmental manual, and do a retrospective analysis of existing manuscripts with the objective of preparing a guide to all holdings. They also plan to develop desiderata lists.

3. The future of the Document Delivery Service appears good. During 83/84, the Document Delivery Service handled eight online subject searches and several reference/research questions on a contract basis. The Document Delivery Service received one request from Canada for New Mexico Mining Reports and utilized the U. S. Postal Service's Overnight Letter for another request. The service completed several requests to locate existing translations for foreign technical publications. The Document Delivery Service also utilized for the first time Dialog's capacity to retrieve the complete text of an article online by printing directly from the Trade and Industry Index (file 148). During the coming year the service should be supplemented by at least one student assistant and it is likely that the service will expand by adding new contracts and by handling more contract reference/research requests.

4. Adrian Treviño has worked nearly 30 hours per week the entire year as a volunteer for the Archive of Southwestern Music. He has indexed several collections, edited others, and separated individual items on the audio tapes with leader tape. We hope he will continue this fine contribution to the library.
   It is also hoped that Max Moskowitz will continue his good work as a volunteer tutor in the Skills Center.

5. Last year's purchase of the 65,000 bibliographic records covering government publications were never loaded into the DataPhase system because of lack of space. This has delayed access to this vital group of records, and will be a high priority project for 1984-85. These records need to be matched against the shelf list and reconciled. An early updating with records covering the years 1981 to current is also a priority.

6. The Government Publications and Maps Department is planning a Patent Users Workshop/Conference with the assistance of the Patent and Trademark office.

7. For the first time in its history, Parish Library will have an Assistant Librarian who can be expected to assist in reference service, collection development and bibliographic instruction. As a result they hope to move forward on a guide for small business and entrepreneurs and a guide for marketing students doing feasibility studies, to reintroduce in-house workshops on finding business information, to start planning more instructional packages for the Human Resources area, and to attempt to complete the guide to export/import materials. The new IBM-PC will be used to index and prepare guides to the growing collection of business/management materials about New Mexico.

8. The work toward providing access to collections should be continued. This involves making progress toward the completion of the complete works edition of the John Donald Robb compositions, the computer indexing of the archive on Southwestern music, and the organization and indexing of the New Mexico Artists Archive.

9. A major effort will be made to increase the use of the online searches of the national bibliographic data bases.

10. An effort will be made to add services in Tireman for the circulation of microcomputer software and for providing equipment to evaluate software.

C. Appointments to Staff

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Ruben Alzate	CS I Temporary	3-16-84
Carole Bandre	Visiting Instructor	4-24-84
Terry Blumer	CS IV Occasional	3-26-84
Eleanor Bravo	Visiting Instructor	4-14-84
Mary Dee Castillo	CS I Temporary	3-19-84
Rosemary Diaz	LS I Temporary	3-19-84
Dana Dorman	CS III	2-27-84
David Dugan	CS I Temporary	3-16-84
Sandra Erickson	CS I	7-11-83
Aida Gerdes	LTA I (50%)	12-12-83
Joanne Gomez	LS I Temporary	5-15-84
Jacqueline Greb	LTA III (50%)	2-1-84
Vanessa Hadady	CS III	10-3-83
Robin Harris	CS II Temporary	4-2-84
Linda Heitkamp	CS III (50%)	9-26-83
Carol Joiner	LS I Temporary	2-13-84
Ava Kargacin	CS II (50%)	10-10-83
Kathy Liden	Visiting Instructor	3-12-84
Sally Livengood-Oder	CS IV	7-5-83
Linda Lynch	CS I Temporary	3-16-84
Sharon McKegney	CS IV (50%)	10-26-83
Beverly Moreno	Visiting Instructor	2-20-84
Virginia Olcott	CS IV Occasional	1-6-84
Mary Otero	CS I Temporary	3-15-84
Richard Page	Instructor	3-12-84
Rise Pappas	Visiting Instructor	3-12-84
Diane Parker	CS III (50%) Temporary	4-11-84
Catherine Pasterczyk	Instructor	8-11-83

C. Appointments to Staff

Anna Romero	LTA III	10-3-83
Ro Saavedra	LTA III Occasional	4-16-84
Hana Samek	LTA III Occasional	5-14-84
Jane Sheaffer	CS IV Temporary	3-19-84
Amy Simon	CS IV	3-19-84
John Trujillo	LTA III (50%)	9-26-83
Nancy Wanner	CS IV Occasional	11-7-83
Frances Wilkinson	LTA II	3-12-84
Rhoda Yeager	Visiting Instructor	4-6-84

D. Separations from Staff

Ruben Alzate	CS I Temporary	6-30-84
Carol Bandre	Visiting Instructor	6-30-84
Terry Blumer	CS IV Occasional	6-30-84
Eleanor Bravo	Visiting Instructor	6-30-84
Heidi Carrasco	LTA II (50%)	12-31-83
Mary Dee Castillo	CS I Temporary	5-12-84
Rosemary Diaz	LS I Temporary	6-30-84
Gail Doherty	LTA II	1-31-84
David Dugan	CS I Temporary	6-30-84
Sandra Erickson	CS I	1-6-84
Aida Gerdes	LTA I (50%)	4-23-84
Joanne Gomez	LTA II (50%)	7-15-83
Joanne Gomez	LS I Temporary	6-30-84
Raul Huerta	Instructor	10-17-83
Kathy Liden	Visiting Instructor	6-30-84

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D. Separations from Staff

Sally Livengood-Oder	CS IV	1-20-84
Linda Lynch	CS I Temporary	6-30-84
Mary Ann Lopez	LTA III	8-12-83
Vanessa Moats	CS IV	9-22-83
Beverly Moreno	Visiting Instructor	6-15-84
Barron Oder	Staff Secretary	11-14-83
Virginia Olcott	CS IV Occasional	6-30-84
Mary Otero	CS I Temporary	6-30-84
Rise Pappas	Visiting Instructor	4-6-84
Diane Parker	CS IV (50%) Temporary	6-30-84
Anna Romero	CS IV	7-1-83
Ro Saavedra	LTA III Temporary	5-11-84
Hana Samek	LTA III Occasional	6-30-84
Marianne Spores	LS I	7-8-83
Rhoda Yeager	Visiting Instructor	6-30-84

E. Sponsored research or other projects

a. Dr. Susan Deese, Skills Center, with Dr. David Kidd, General College, submitted a proposal to the Fund for Improvement for Post-secondary Education. Dr. Susan Deese, Skills Center, and Eileen Schroeder, Reference Department, submitted a proposal to the Tandy Corporation.

Alice Clark and Tim Wehrkamp, Special Collections, wrote a proposal to NEH for participation in the U. S. Newspaper Project. This represents eight percent of the faculty.

b. none

Public Services Statistics

	1982-83	1983-84	% of Change
Library Use (Gate Count)*	1,417,525	1,372,063	- 3.2
Zimmerman	1,134,988	1,093,068	- 3.69
Parish	166,882	170,723	+ 2.3
Fine Arts	115,705	108,272	- 6.4
Outside Circulation**	366,045	345,869	- 5.5
Total Circulation***	379,224	357,574	- 5.7
Zimmerman	272,511	254,960	- 6.4
Parish	27,706	25,821	- 6.8
Fine Arts	39,459	38,359	- 2.8
Listening Center	12,166	10,635	-12.6
Tireman	26,369	26,729	+ 1.3
Evaluation Center	817	754	- 7.7
Review Center	196	316	+61.2
Reserve Circulation	89,507	74,733	-16.5
Zimmerman	67,579	54,021	-20.
Parish	11,039	9,139	-17.2
Fine Arts	10,889	11,573	+ 6.3
Interlibrary Loan	10,301	10,763	+ 4.5
Borrowed	3,872	3,743	- 3.3
Lent	6,429	7,020	+ 9.1

* Does not include Tireman

** Includes interlibrary loans and reserve, but does not include Listening Center, Evaluation Center or Review Center

*** Includes all recorded circulation.

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Alice S. Clark, Associate Dean

A. Significant Achievements

In 1984-85 it is obvious that the Public Services Division of the UNM General Library - in common with the rest of the library world - experienced a major technological expansion in its work procedure. More important than the tools and methods with which service is provided are the changes and results which occurred. Undoubtedly some of the changes took place as a result of automation. (Without systematic research, causes and results probably cannot be positively related.) In most cases, however, automation of procedures has been seen by observation to be one of the factors contributing to a change or to effects which showed up this year. While reports from Public Service Departments emphasized heavily their computerization of activities, perhaps even more emphasis should be put on the effect this has on future plans. What we do as the result of automation, how we can be more efficient, and what additional services we can offer will be the tests of the effectiveness of greater use of technology.

Service

While increases in library use and in circulation of library materials was expected, the increase of 66% in recorded circulation of materials was unexpected. Some of this increase over 1983-84 can be explained by the restoration of full library services after a reduction due to a 4% budget cut for the previous semester. Another reason for the increase in use of library materials is the efficiency which resulted from automating the circulation process. This phenomenon has been noted nationally where automation usually increases the number of items each borrower

charges out. Fortunately the new procedures for circulating books have released some of the staff to handle the increases in volume. However, automation does not help when there are over 200 thousand extra books returned and needing to be reshelved. An encouraging reason for part of the change is a more serious and dedicated student body, another phenomenon that has been noted nationally.

Service to local and state businesses, governmental agencies and educational institutions continued to increase. Eight new contracts were signed with local businesses who want delivery of materials. This Document Delivery System has shown a growth of 86.1% over the past five years. An interesting trend is the increasing number of requests which have to be filled from sources beyond UNM and in a growing number of cases from commercial information sources. This is not, however, just a reflection on the limits of funding library materials here. The reliance on commercial sources for information is a national phenomenon. The concept of public funding of libraries so that information would be free to all has been eroded as increasing numbers of documents are distributed only to commercial vendors or to limited memberships. Technology has made hardware vendors and commercial information centers a significant addition to publishers as a source for information. Strict copyright laws make it necessary to purchase journal articles and other short items rather than borrowing a photocopy on interlibrary loan. Sometimes this is a benefit in quicker availability by full text on computers but often expensive in telecommunications and in the end user's preference for a paper print-out.

The University Archives have begun to collect some of the materials on campus. During this year two temporary archivists have directed this

activity while a search continued for an experienced person to fill the position of University Archivist. For this year some space in the Special Collections Department has been turned over to the University Archives and equipment has been ordered.

Good volunteer work has been done by Adrian Trevino on the John Donald Robb Archive and by Max Moskowitz, as a tutor in the Skills Center. A reception was held in the West Wing so that all of the library's staff could recognize these valuable volunteers with a gift.

The Fine Arts Library has made a good start on developing the New Mexico Artist Archive. This is a very useful addition of unpublished information not previously collected on a regular basis. It will serve to answer questions about New Mexico artists and their work, information which was almost impossible to find otherwise. It will undoubtedly grow over the future years, and its value will be enhanced by the easy access and transferability of the data in machine readable form.

Work began this year toward getting this university involved in the United States Newspaper Project. A proposal was written by the Head of Public Services for a planning grant, and $8000 was received from the National Endowment for the Humanities Preservation Programs. The grant was used to determine the cooperation of libraries, museums and educational institutions which might be interested in being involved in this national effort by identifying, gaining access to, cataloging, and microfilming all newspapers in the state. The planning grant was used to survey all of the libraries listed in the bibliography, New Mexico Newspapers, to determine the present state of their holdings in regard to physical form and bibliographic control. From the survey a core of interested people from around the state met on April 16th at the Albuquerque Museum to hear

presentations by Gerald Crawford, Editor of the Albuquerque Journal and Tony Hillerman, Author and Journalism Professor, University of New Mexico. The program, chaired by Paul Vassallo, Dean of Library Services, included a panel of experts on the subject of newspapers. Panelists included Ruth Krug, University of New Mexico; Sandra Hansen Matheny, Eastern New Mexico University; Richard Salazar, New Mexico State Records Center and Archive; Michael Miller, New Mexico State Library; Irma Silva, Comgraphix; Richard Etulain, New Mexico Historical Review; Byron Johnson, Albuquerque Museum; and Bart Ripp, Albuquerque Tribune. Plans were made for seeking a large grant to carry on the project.

The Head of the Government Publications and Maps Department became involved in promoting the Patent Depository Collection as another five-year backrun of patents was purchased, and as we continued to make efforts to reach the twenty-year run required of Patent Depository Libraries. As a new Depository and the only one in New Mexico it was evident that a knowledgeable network of librarians was needed to promote the use of patents as a research tool and to make information about our resources available to people who were potentially or already patent users.

Seven libraries in the state who were depositories for Government Printing Office materials were found to be interested in extending their patent services in a network with UNM's collection. The Head of the Government Publications Department set up two-hour workshops to teach staff in these libraries how to obtain information and use the Patent Gazette for searching and getting access to the patent information. The workshops were given in Portales, Hobbs, Silver City, Las Vegas, Socorro, Santa Fe,

Las Cruces and at UNM and were well-received. At least two locations videotaped the presentation for use in training other staff.*

The Government Publications and Maps Department staff assisted with arrangements for a training seminar on use of Economic Census data given for local librarians and users of this information source by Al Mirabel of the Census Bureau's Region 6 office in Dallas. The local arrangements for the meeting of the Advisory Council to the Public Printer in March, were also capably handled by the Government Publications Reference Librarian. Government Publications librarians from all over the country attended a reception at President Farer's home, with van service from the hotel provided. Compliments from attendees indicated that they were very impressed with New Mexico hospitality.

A position was transferred to the Parish library to meet the need for a reference librarian to serve an evergrowing clientele of users. The staff of that library serves a large population from off-campus private business schools, programs offered in Albuquerque by other universities, and from many businesses and government agencies. While this is becoming an increasing problem with the overburdened space, the library personnel have accepted this as their duty in the only comprehensive business information service in the state. The Head Librarian presented workshops on business sources under a State Library grant and participated in publicity on the Anderson School of Management in New Mexico Business Journal and in the school's brochures.

*A good description of the workshop written by Eulalie W. Brown, Head of Government Publications and Maps Department, appeared in Government Information Quarterly, v. 3 #2, pp. 179-189.

Space

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A major step forward this year was the ground breaking ceremony for the new Science and Engineering Library. This library which is to be built in conjunction with a building for the Computer and Electrical Engineering Building, held its ground breaking ceremony on October 13th. The Kurzweil computer was used to read directions to a robot which was supposed to dig the first shovel of dirt. While the Kurzweil performed well, the robot failed to do its work. Fortunately our planning for the new facility proceeded well. In December approval was given by the Provost to hire a planning librarian to help with this work. As part of this, the original operating budget submitted in 1977 was updated to reflect inflation.

Progress was made on the new Science and Engineering Library as the giant hole in the ground appeared for this completely underground library. The Planning Coordinator began the plans for furnishings, equipment, services and functional operations. The Science and Engineering Library Task Group began meeting again. Through the aegis of this Committee, a Mission, Goals and Objectives statement for the Science and Engineering Library was developed, approved and distributed. A regular series of meetings was initiated with science selectors to complete the tasks required of several planning teams (Circulation Services, Reference Services, Documents, Processing, Building, Collection, Policy). Two documents were developed with regard to Science and Engineering Library collections. One was a preliminary list of government agencies whose publications are recommended for relocation to the Science and Engineering Library. The second proposed ways in which the decision might be made on which materials (subjects) should move to Science and Engineering Library.

Details relating to the building were organized in terms of needs for locks, elevators, phones, and communication through the UNM Network (CDCN). Coordination proceeded with appropriate staff in the University Architect's office and the contract architect.

As the result of action by the NM State Legislature, a new Parish Library will be constructed as part of a Social Science Complex involving renovations and new buildings for the Anderson School of Management and social science departments. This library will provide 23,000 square feet for business, management, and economics materials and is expected to be completed by March of 1987. Planning for the new library proceeded in frequent meetings with the contract architect.

A project to remove all materials stored in the North Campus building made great progress. This facility, always unsatisfactory due to its lack of temperature and humidity controls, has deterioriated further due to leaks in the roof. Public Services selectors took on a project to reexamine all stored materials and make recommendations to move materials back to the libraries or to withdraw and dispose of them. With the help of Administrative Services personnel the major part of the building was cleared, the contents sorted or removed, and the areas cleared to allow better sorting of the shelving parts stored there.

It is hoped that by the end of the next year this facility will have a new roof and the building can be used to store equipment.

Automation

The DataPhase ALIS system was further developed this year with additional program releases and additional hardware. Storage problems became acute until two 300MB disk drives were added which permitted the loading of a

backlog of OCLC tapes and 65,000 GPO records as well as the new releases. Enhancement releases included:

Release 4.5 Item call number dictionary rebuild

Release 4.6 Acquisitions software

Release 4.7 Notices

Release 4.8 Reports

Release 4.9.1 Maintenance Release

Release 4.10 Inventory lists and COM output

Release 4.11 Bibliographic record call number rebuild

Serial Maintenance

Branch-to-branch loans

Release 4.12 Subject Boolean search

Subject dictionary rebuild

Multi-Library software

Release 4.13 Author, title, ISSN/ISBN and LCCN dictionary rebuild
ILL software

Acquisitions software

A major improvement was the beginning of the subject index with the completion of 250,000 records and the first 294,000 records in the title dictionary.

Other equipment added included new disk packs and eight new Data General terminals. Terminals were purchased for the Fine Arts Library and the Parish Library and installed in the Government Publications and Maps Department.

Some of the service results from the above changes were reserve listings for professors and courses, better statistical reporting, and better inventory listing for other departments. As the Law Library began to use ALIS for circulating materials, the General Library Circulation Department assumed responsibility for their overdue and billing notices.

In terms of experimenting with the system, a prototype stand-alone backup system on a TRS80 was developed by a staff member and patrons were able to search and send messages using their IBM/XT and a Mac-Intosh.

The Government Publications and Maps Department began its project to get records in the ALIS database for selected groups of government publications. They began with their reference collection and the display periodicals and then worked on a printout of all items returning from circulation.

Adding three DataPhase terminals at Fine Arts brought their circulation up on the system. Staff training and changes of procedures quickly resulted in the quick charge out of books. The Library's users are very pleased with the new rapid system.

A grant proposal was submitted to the New Mexico State Library to use LSCA Title III funds for a joint project between the Albuquerque Public Library (APL) and the General Library. These funds were approved and equipment ordered to allow APL to search DataPhase and our Reference Department to search the GEAC system at the main library of APL. This will expand upon our existing referral service by determining if the other library has the book and if it is available for borrowing.

The addition of microcomputers improved operations in several areas. The Music Department placed two Apple IIe microcomputers in the Fine Arts Library for use by theory and music education students. Even though they are heavily used by students the library staff has been able to use them for word processing and other projects.

The transfer of an IBM 3728 terminal from Zimmerman to Fine Arts permitted the continuation of input to the mainframe computers of the indexes to the

John Donald Robb Archive and the New Mexico Artists Archive. The southwestern music project now has information on approximately half of the 2700 songs represented in the Robb Archive collection. Both projects use SAS-FSP, a highly flexible system with searching on a number of fields as access points. It permits Boolean searching. These projects will be a great saving of time in searching for specific materials. The work on the New Mexico Artists Archive is now fully designed but the input of data awaits the availability of additional staff. Good help and support in using SAS by the staff of Computer Services and Information Systems contributed to progress on these special projects.

Another milestone was passed at the Fine Arts Library when an OCLC terminal was installed and for the first time the collection of recorded sound began to be entered into the OCLC data base.

Online search services were improved by the addition of a portable Zenith microcomputer. With the addition of a new coordinator for the service, there was a total reorganization of records on statistics, financial reports and scheduling data. Now that the service is better organized recommendations are being made to put the service more nearly on a self-supporting basis and to publicize and increase the use of the service. An Information Fair is being planned to offer instruction in end user searching so that people who have access to a microcomputer can do simple searching for themselves.

Three new coin-op Xerox copiers were purchased this year in an effort to upgrade the Copy Center equipment. A search of all brands of copiers resulted in disappointment that no new copiers have the advantage of a plate that allows copying of books without damaging their bindings. It is necessary that the old Xerox 1040s be kept working as long as possible

because of their good performance in this matter.

Library Orientation and Bibliographic Instruction

Working with Music Department faculty, the Head of the Fine Arts Library established a three-lecture library component for Music History 261.

The use of the Map Room was encouraged by preparation of a hand-out, "Introduction to the Map Room" and by tours and lectures to Geography Department and School of Architecture classes.

At the Parish Library all of the marketing and consumer behavior handouts and lectures were revised, a new series of lectures for the marketing management classes was developed, new materials were produced for the organizational behavior classes, a new unit was established on human resources, and a handout and presentation developed for the job search network of the Law School.

Several Public Services Librarians were involved in making presentations on the state of the General Library to Representative Hawkes and to President Farer.

The Library has become increasingly involved in the direct teaching of students. While tours and brief orientations are still a major function for introducing students to the library system, more efforts have been made toward offering in-depth introductions to specific types of materials or to the literature of specific subjects and fields. As a result more requests for class presentations are made-sometimes at the request of the students. The volunteer nature of students requesting help has been evident where a group of students hear that a certain lecture is available and ask to come as a group or ask the teaching professor to include it in class sessions. The study skills sessions offered by the Skills Center have resulted in so many students who attend the whole set of presentations

that the Library Faculty see the need to offer a more expanded program for credit. A proposal was prepared and will be taken through the Faculty Senate procedure for approval. The course will include both library and study skills.

The statistics on instruction reflect both the need for providing small group instruction and on the results of expanding the Skills Center services to support a broader range of mathematics courses.

	1983-84	1984-85	% of Change
Classes or Groups	984	760	-23%
Individuals	8,666	19,984	+131%

B. Significant Plans and Recommendations for the Future

During the coming year the Head of Public Services will write a proposal seeking a three-year grant from the National Endowment for the Humanities for a newspaper preservation program. It is expected that this will be for three years, will include the active cooperation of New Mexico State University and the State Library, and be funded somewhat in excess of $600,000. The Head of Public Services will ask the New Mexico Library Association to include in its annual conference a program on the project with Jeffrey Field from NEH as a speaker.

As the result of a bond issue approved by voters in November, the Library received $1,180,900 to be used for automation and for library materials. Plans already underway will be implemented. Both materials and automation equipment will be ordered during the next year.

The contract for the DataPhase system will need to be negotiated and completed. While several functions were never available, a compromise may be worked out to provide an upgrade in computing capability to offset this.

Adding the M300 OCLC terminals will speed up processing of new materials and interlibrary loan. The advantages of automation are realized here where the system quickly proceeds with the work overnight after employees have gone home.

An interface to connect the library automation systems by CDCN cable will need to be installed linking Zimmerman with the new Science and Engineering Library and Parish Libraries. This will provide a link to STAR and provide for an online catalog in the new buildings.

Before the Science and Engineering Library can open it will be necessary to have the online catalog up and running. During the coming year Public Services staff will be reviewing the responses to the Request for Proposal, examining demonstrations of some of the systems which responded, and visiting sites where the most appropriate systems are already operating. After a system is chosen, installation and debugging will be necessary before the Science and Engineering Library opens.

The weaknesses of the BATAB system for acquisitions has made it necessary that a new online system with compatible serials check-in be purchased. Public Services personnel will assist in this selection and be involved in revising periodical check-in procedures in the branch libraries.

A serious problem this year has been the rapid collapse of the plastic chairs in public areas. These chairs were purchased at the time that Zimmerman III was built in the 1970s, bought over the protests of the library dean,and were never satisfactory. Fortunately no one has been hurt as the chairs have collapsed. Half of the chairs were replaced partly by the transfer of some chairs from the Roberts Room in Scholes and partly by purchase of new sturdy upholstered wooden chairs. This situation is symtomatic of the General Library's problems in replacing equipment after

several years without an allocated equipment budget. A building which has an average of 300 - 500 students present 105 hours per week takes a lot of wear and tear. It is expected that another hundred chairs will need to be replaced next year.

Work with the architects on the Parish Library will continue. As construction begins, we will develop equipment and furnishings lists and update the operating budget request.

The Fine Arts Library is rapidly becoming a no-growth area. Recommendations for the coming year must be an urgent plea for plans for new space for the library. We will continue to utilize the space available to the best advantage, but we are now at the point where the already limited study space will be further utilized for stack areas.

Work will continue on the selection of furnishings and equipment for the Science and Engineering Library. It will be necessary to determine what the budgeted amount will be for this purpose. An operating budget also needs to be set up and a search for a Head Librarian started. A major component for the operation of this facility is the online public catalog since there will be no access to the materials in the building until an automated catalog system is acquired. It is important that this be carefully chosen so that it can be expanded for the whole General Library system and include also the Law Library.

Plans for remodeling the Education Administration Building to expand and provide security for the Tireman library collection will need to continue.

Also in the next year it is desirable that a new enlarging copier be purchased for the cataloging operations and other Technical Services support. The Xerox 9200, now over five years old, should also be replaced.

The Xerox 9500 will be fully paid for by October of 1986 and at least by that year money for other equipment will be available as a result.

During the year an assistant to the Head of the Skills Center was hired on a temporary basis. During the next year it is expected that this position and other regular staff positions for Math/Science and the Writing Lab will be possible. The sheer numbers of students a 9% growth over last year and similar patterns over the past four years made this necessary. The Skills Center Director also contributes extensively to other campus programs and to committees. During the next year tutoring service will be expanded to cover all undergraduate courses. Many of these courses will be handled by call-in tutors for special projects.

In general this has been an unusually productive year with expansions in automation, increases in services, and many advances planned for the future. While problems exist and weaknesses are evident, in the future we will look back on 1984-85 as a good year for the Public Services Division.

Public Services Statistics

	1983-84	1984-85	% of Change
Library Use (Gate count)*	1,372,063	1,394,082	+ 1.6
Zimmerman	1,093,068	1,106,569	+ 1.2
Parish	170,723	178,529	+ 4.6
Fine Arts	108,272	108,984	+ .7
Outside Circulation**	345,869	575,581	+66.
Total Circulation***	357,574	463,407	+29.6
Zimmerman	254,960	359,487	+41.
Parish	25,821	21,294	-17.5
Fine Arts	38,359	41,580	+ 8.4
Listening Center	10,635	11,490	+ 8.
Tireman	26,729	28,190	+ 5.5
Evaluation Center	754	1,231	+257.
Review Center	316	135	-57.3
Reserve Circulation	74,733	113,191	+51.5
Zimmerman	54,021	96,360	+78.4
Parish	9,139	5,790	-36.6
Fine Arts	11,573	11,041	- 4.6
Interlibrary Loan	10,763	11,839	+10.
Borrowed	3,743	4,612	+23.2
Lent	7,020	7,227	+ 2.95

* Does not include Tireman

** Includes interlibrary loans and reserve, but does not include Listening Center, Evaluation Center or Review Center

*** Includes all recorded circulation

C. Appointments to Staff

Carol Bandre	LTA III	8-20-84
Peter Betz	LC II	1-2-85
Eleanor Bravo	Visiting Instr. temp.(.50)	2-1-85
Mary Otero Chavez	LC II	10-18-84
Rita Darras	CS IV	6-3-85
Mary Ann Daughetee	CS II, temp. (.50)	1-25-85
Monique Durham	Occasional (.50)	3-12-85
Linda Gonzales	LTA I (.50)	1-14-85
Sheila Hannah	LTA II	5-28-85
Robin Harris	CS (.50)	7-2-84
Don Hart	LTA III	5-6-85
Peter Ives	Instructor	8-1-84
Paul Jagunich	LTA I (.50)	5-13-85
Kevin Karnes	LC, Occasional (.50)	3-15-85
Jody Kempf	Instructor	3-4-85
Kathy Liden	Visiting Instr. temp.	8-20-84
Kathy Liden	" " "	11-1-84
Imelda Martinez	LS I	4-19-85
Linda Massey	CS V, Occasional (.50)	4-1-85
Sharon McKegney	LTA I	12-28-84
Peter Morgan	LC II	11-21-84
Amy Piscatelli	OCLC Spec. Occasional (.50)	12-3-84
Michael Raines	LTA II	12-19-84
Virginia Seiser	Assistant Professor	5-1-85
Jane Sheaffer	CS II, temp. (.50)	7-2-84
Sandra Spurlock	Assistant Professor	12-1-84
Marcia Swingle	Lecturer III temp.	1-21-85

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C. Appointments to Staff - Cont.

Sid Tanen	Admin. Asst. temp.	10-12-84
Adrian Trevino	LTA II, temp. (.50)	3-18-85
Julie Uhland	LTA I	9-4-84
Rhoda Yeager	LS, Occasional (.60)	8-14-84
Rhoda Yeager	LS I (.50)	11-21-84

D. Separations from Staff

Carol Bandre	LTA II	5-17-85
Eleanor Bravo	Visiting Instr. temp.	4-30-85
Rita Darras	CS IV	6-20-85
Mary Ann Daughetee	CS II, temp. (.50)	6-30-85
Gay Finlayson	LTA II	8-6-84
Linda Gonzales	LTA I (.50)	5-1-85
Vanessa Hadaday	LC II	11-26-84
Kathy Liden	Visiting Instr. temp.	10-14-84
Kathy Liden	" " "	3-31-85
Imelda Martinez	LTA III	1-2-85
Linda Massey	CS V, Occasional (.50)	6-30-85
Sherri McIlroy	LTA II	8-24-84
Sharon McKegney	LTA I (.50)	12-28-84
Peter Morgan	LC II	6-30-85
Ellen Robertson	Instructor	10-31-84
Joanne Scheibman	LS I	8-3-84
Jane Sheaffer	CS IV, temp. (.50)	7-31-84
Amy Simon	LTA II	11-30-84
Marcia Swingle	Lecturer III, temp.	4-30-85
Sid Tanen	Admin. Asst. temp.	6-19-85
Adrian Trevino	LTA II, temp.	6-30-85
Julie Uhland	LTA II	5-10-85
Nancy Wanner	CS IV	5-3-85
Fran Wilkinson	LTA III	8-10-84
Rhoda Yeager	LS I, Occasional (.60)	11-20-84

E. Sponsored Research or Other Projects

a. One faculty member submitted one proposal to an outside agency. This represents .04% of the Public Services Faculty.

b. One faculty member received one award from an outside agency. This represents .04% of the Public Services Faculty.

Office of Graduate Studies

Annual Report

July 1, 1984 - June 30, 1985

A. Charlene McDermott, Dean of Graduate Studies

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A. INTRODUCTION.

Since the academic year 1984-85 has been an unusual one in several respects, most notably in regard to the change of leadership at the presidential level, we believe it would be more useful to incorporate into the Office of Graduate Studies' annual report certain documents prepared for the new president.

In lieu of the usual detailed description of recent significant developments in the Office of Graduate Studies, the OGS has produced reports which taken together describe and assess the structure, procedures and future prospects for graduate education at the University of New Mexico. These documents comprise, respectively, an enumeration of basic functions, a broad set of philosophical observations, program review data (useful to the President's Committee on Strategic Planning), and a larger briefing book which treats history, policy and problems with a focus on the past four years during which I have been Dean of Graduate Studies.

To avoid duplication of efforts, following are two of the documents which will serve as the core of this year's annual report. The first deals with a number of issues in graduate education recommended for exploration to the President's Committee on Research and Graduate Affairs; the second with functions of the OGS. It has become increasingly clear that the great variety of essential functions performed by this Office may not be well understood by other administrative units and by our faculty at large. The other documents cited above are available at the Graduate Office to those whose involvements warrant disclosure of this information.

Following is a list of the more salient issues in graduate education at UNM to be explored by the President's Committee on Research and Graduate Affairs:

1) Possible restructuring of graduate education, cf., Rackham Report, University of Michigan. Optimum future role of the Office of Graduate Studies, the Graduate Dean and the Faculty Graduate Committee in graduate teaching and research.

2) Long range programmatic planning - special atention to be given to the implementation of recommendations in our accumulated program review data.

3) Continuation (mutatis mutandis) of cycle of program reviews to insure ongoing regular assessment and enhancement of quality of graduate teaching, dissertations and research.

4) Increased fellowship, scholarship and assistantship funding for graduate students. Strengthening of rapport with GSA on these and related issues.

5) Intensification and broadening of UNM's role in state, region and nation. Utilization of organization of Council of Graduate Deans of New Mexico State Universities, Western Association of Graduate Schools and the Council of Graduate Schools in the U.S. to promote this goal.

6) Increased attention to recruitment and retention of minority and other qualified graduate students underrepresented in particular areas of study.

7) Increased support for our Latin American and Asian programs.

8) Entrenchment and development of our off-campus programs throughout the state.

9) Creation of timely interdisciplinary programs.

10) Increased funding for and expansion of our interdisciplinary graduate lecture series.

11) Greater creativity in obtaining and distribution of funding for graduate education from federal, state and private sources.

12) Exploration of the possibility of membership in AAU.

13) Improved funding for the support of research for graduate students and faculty in the fine arts, humanities and education, as well as in the sciences and engineering.

14) Continued assessment and refinement of policies governing the conduct of graduate teaching and research.

15) A thorough examination of the special needs and problems of professional graduate education.

FUNCTIONS OF THE OFFICE OF GRADUATE STUDIES

Below is a numbered summary of the day-to-day functions of the Office of Graduate Studies (OGS). Descriptive information about a given function can be found in Section A under that function number while Section B defines the resources set aside for that function, and Section C describes some of the more frequently recurring problems which arise in the execution of the function as these problems are perceived within the office. Section D is a non-exhaustive list of suggested additional routine functions the OGS should be empowered to address. No attempt has been made to rank the functions according to their importance.

1. Admissions
2. Public relations and community interactions
3. Representation of UNM's graduate programs to state, regional and national organizations for graduate education
4. Advisement on academic and personal problems of students and departments
5. Quality evaluation and control
6. Administration of program reviews
7. Screening and entering graduate assistantship data into the payroll/accounting system
8. Qualification of students for graduation
9. Allocation of various fellowships
10. Centralized record keeping
11. Interpreting and explaining graduate policies to faculty and faculty committees
12. Granting of variances to policies and changes of major
13. Support services to the Senate Graduate Committee
14. Publication of the Graduate Bulletin
15. Advisement to the UNM Off-Campus Residence Centers
16. Communication with the Graduate Student Association

SECTION A: FUNCTIONS OF THE OFFICE OF GRADUATE STUDIES

1. Admissions

The OGS acts as a central clearinghouse for admissions. OGS updates and prints the application materials, which are then made available to the various graduate units and are also given out directly to prospective students. Three of the sixty graduate units (Chemistry, Geology and Physics) collect and process their own paperwork leading to an admission decision. For the remaining units, OGS collects the application, fee, transcripts and financial aid data. When the file is complete, it is sent to the appropriate graduate unit for an admission acceptance or declination. The unit sends the packet back to OGS, along with its decision on admission. At this point, the three above-mentioned science departments join the process along with the other units. OGS sends an acceptance or rejection letter to the student, verifies that an undergraduate degree has been obtained and sends the acceptances to the Admissions Office for entry into the student records system. Unlike undergraduate admissions, each applicant for graduate studies is screened by the graduate unit to which he/she makes application.

2. Public Relations and Community Interations

a) Numerous inquiries regarding graduate programs and the University's programs in general are addressed to the office daily. Most requests for information are handled by the staff, but several hours each week of the Associate Dean, Assistant Dean and Dean's time are

spent in interviews with students who wish to discuss programs generally with no particular department in mind. Some of these prospective students are referred to departments or colleges, some to career counseling, and others are handled directly in the OGS by clarifying overall policies of the University with regard to graduate degrees.

b) The Graduate Lecture Series is planned and orchestrated by the office, primarily by the Assistant Dean. Four or five outstanding scholars annually are brought to the University for free general lectures and for specialized colloquiua with smaller groups. The program is advertised throughout the University as well as to the community at large.

3. Representation of UNM's Graduate Programs to State, Regional and National Organizations for Graduate Education

The Office of Graduate Studies serves as representative for UNM's graduate programs at several levels: at the state level to the Council of Graduate Deans of New Mexico State Universities; on the regional level to the Western Interstate Commission on Higher Education and the Western Association of Graduate Schools, and on the national level to the Council of Graduate Schools in the United States. The University of New Mexico is now represented at the highest level in each of these organizations.

4. Advisement on Student/Departmental Academic and Personal Problems

a) Occasionally graduate students encounter academic problems

in regard to which their departments seem unresponsive, whereupon they seek some sort of resolution from OGS. A dean assesses the problem and tries to define a plan of action, if one is in order. If the problem is seen to involve substantive policy or quality issues, the department chair and/or the dean of the college is brought into the discussion. Some of the more serious of these problems involve allegations of unfairness in the evaluating of comprehensive examinations, gaps in adequate thesis/dissertation advisement, TA/GA grievances or lack of adequate program advisement within the department.

b) Other student problems involve need for explanation of policies and protocols of the University regarding graduate studies. Students also come in to check the status of their records. A fairly typical request is for assistance in changing majors or departments.

c) Occasional problems with graduate students are brought to the Dean(s) for advice or action by faculty. When students are performing poorly or present some sort of behavioral problem, departments on occasion seek the support of OGS in enforcing policy, or in removing or redirecting the student.

d) Students, faculty and administrators frequently seek assistance from OGS in dealing with problems and issues of an unclassifiable and often sensitive nature. Incidents of sexual harrassment are reported to OGS. Counsel is sought from OGS in resolving departmental conflicts. Misunderstandings between students and faculty are directed to OGS. Many perceive OGS as a kind of ombudsman or central point of reference that possesses a general perspective and comprehension of the university's operational structure; that wields a certain degree

of effective influence; and that is willing to devote its available financial and strategic resources to the benefit of the entire campus community. OGS is asked routinely to interview and assess the quality of prospective graduate faculty. Following are a few specific examples. Recently, OGS' aid was sought to send a student to Poland for summer study and to find additional funds for a severely handicapped student journeying to Iceland for a research institute. In addition to participating in a day-long retreat for the Department of Sociology in August, 1984 OGS facilitated a similar retreat for the department of Physiology in March, 1985. It will provide the same service for the department of Biochemistry in May, 1985. It is negotiating to do the same for the department of Art. The department of Music recently welcomed OGS' offer to assist the pursuit of a student of great promise.

5. Quality Evaluation and Control

The more overt ways in which this is done are:

a. Approving faculty for graduate instruction
b. Graduate dean's role on faculty Promotion & Tenure Committee
c. Approving courses for graduate credit
d. Monitoring student standing
e. Evaluation of theses and dissertations

a) Approving faculty for graduate teaching is done by the Graduate Dean who inspects credentials of candidates submitted by the departments. There are several levels of approval; for example, only those designated as regular graduate faculty (those with doctorates) may direct doctoral dissertations in their own departments.

b) The Graduate Dean sits on the Promotion and Tenure Committee which makes final recommendations to the President on faculty promotion and tenure.

c) Approval of courses for graduate credit is handled by the Dean, based on materials sent from the petitioning department.

d) Monitoring student standing is accomplished by hand calculating graduate point averages each semester for enrolled graduate students. (These are hand calculated due to variation in acceptance of courses for graduate credit between programs. See section on problems/dilemmas for further explanation). When a GPA drops below 3.0, the student is placed on academic probation. The Associate Dean verifies the records of those placed on probation and notifies both the student and the department of this action. This is critical when teaching assistants, in particular, are placed on probation, since the quality of undergraduate teaching may be in jeopardy. The Associate Dean counsels about half of the more than one hundred graduate students on academic probation after the announcements of probations have been received.

e) Evaluation of theses and dissertations takes place following the defense by the student and the approval of the manuscript by the faculty committee. The theses and dissertations are then reviewed by OGS. Efforts are made to assess the importance of the problem, and the completeness of the work in the context of the problem statement. The comments of committee members on the "gray" sheets are scrutinized, and if there are equivocal or negative evaluations, further information may be solicited from the faculty. (Some College Deans may

read dissertations, but none of them does so routinely for approval purposes). In addition, each manuscript is checked for typographical errors, reproduction quality and any other factors which would render it unsuitable for publication by University Microfilms. Obviously such meticulous surveillance is a time-consuming task. To provide guidance for students and advising faculty on matters of form for manuscripts, a Thesis and Dissertation Manual (published by the OGS), is available to graduate students for a modest fee at the UNM Bookstore.

A distinctive dissertation is awarded the Tom L. Popejoy Prize Award at commencement. OGS coordinates the selection process.

6. Administering of Graduate Program Reviews

The Office of Graduate Studies in concert with the Senate Graduate Committee is responsible for conducting and administering graduate program reviews (mandated by the Faculty Senate in 1978). Funding for these reviews is provided by the central administration and of five scheduled reviews for the current academic year, four will be completed during this academic year. The fifth will be completed during the 1985-86 academic year. The SGC and OGS compiled (and are in the process of revising) academic unit review guidelines and self-study guidelines to assist departments in this effort. One OGS staff member provides financial advisement and assistance to departments with recordkeeping in this and other areas of the evaluations. The OGS makes the formal offers to outside evaluators once they have been approved by the SGC and have indicated a willingness to take part in the process within the modest remuneration schedule set forth by state and

university regulations. The number of outside reviewers varies, depending upon the size of the program and the number of areas within it requiring evaluation. One UNM faculty member is chosen (with SGC approval) outside the department to serve as the internal reviewer and to provide both informational and logistical assistance to the external reviewers. The Dean of Graduate Studies and the SGC member assigned to participate in the particular review at hand, meet with the review team in an "exit" interview. Once the reviewers' report is received, steps are taken by OGS and the department to meet with the administration in the hope of finding ways to implement many of the recommendations contained in the report. These evaluation reports should be a valuable tool in the long-range planning efforts of the University.

7. Screening and Entering Graduate Assistantship Data into the Payroll/Accounting System

Graduate students may be designated as Teaching, Graduate, Project or Research Assistants by their particular departments. These titles loosely derive from the respective job descriptions and the funding sources.

Each of these students is paid on a contract through Payroll with funding charged to a specific account number. OGS has been designated as the "source data station" for these contracts. The contracts originate with the graduate units. They are signed by a department officer, a college officer responsible for teaching and graduate assistants, and by the student. Every contract is accompanied by an employment form. OGS checks the student's GPA and number of register-

ed hours to determine eligibility, checks to insure that the pay period, rate of pay and total amount are self-consistent, determines whether the student is pre- or postmaster's level and notes the new total for cumulative semesters of support in the student's file. Next, the necessary data are transferred to a payroll data sheet (PDS) and the contract, PDS and the information sheet are sent to General Accounting. After General Accounting verifies the appropriateness of the account number, it forwards the packet to Payroll and the student is entered into the payroll system. The contract and a new PDS is then returned to OGS which distributes copies of the contract to the unit and the college, keeping the PDS on file in the event changes in the contractual arrangement are necessary.

The role of the OGS in this process is important because the data it verifies and encodes is critical in the computation of the BEF data file by the Faculty Contracts Office. Accuracy in this function is essential. A staff member devotes nearly fulltime efforts to this process. A major portion of this staff member's time is spent helping students and the graduate units understand the contract process.

8. Qualification of Students for Graduation

Each semester the graduate units send OGS a list of prospective graduation candidates. The total list typically encompasses about 500 students each semester including summer. The file for each of these students is examined to be certain that he or she has met the requirements for graduation in the chosen degree program. In this examina-

tion, departmental as well as OGS requirements are verified. The list of requirements which are checked is extensive and differs for each degree program. This effort consumes the fulltime efforts of a staff member. Of the 500 candidates for graduation, approximately 50 can be immediately qualified for graduation. The remaining 450 all have some kind of problem. OGS notifies the unit when a student does not meet the graduation requirements and specifically outlines the deficiency. Usually the unit and the student are able to clarify the problem, although frequently a petition for a variance is submitted to the Associate Dean. The fate of these 450 students is in considerable flux until the hard deadlines of commencement program printing and diploma preparation arrive. At these times OGS provides commencement program information to the University Secretary as well as a certified list of degree recipients to the Records Office and to the Senate Graduate Committee. Ultimately, in any given semester or summer session, about two-thirds of the initially proposed candidates succeed in qualifying for graduation.

9. Allocation of Various Fellowships

a) OGS administers about twenty graduate awards. Five of these (viz., the "challenge assistantships") have an interdisciplinary thrust. Funding for these comes from University sources. OGS announces the availability of these awards and invites applications from the students either to the unit (if the unit is coordinating nominations) or to the Graduate Office if the latter coordinates the nominations. Nominations are then forwarded to the OGS which evaluates them through

a faculty committee appointed by this office. The committee actually determines the successful candidates and OGS notifies the applicants and departments of the outcome.

b) In addition to the financial awards mentioned above, OGS oversees the awarding of approximately 65 graduate tuition fellowships (GTF); one GTF is made available to each graduate unit. The units nominate their most appropriate candidate to OGS; OGS verifies the qualifications of the candidates before notifying the Cashier's and Student Accounting Offices that these specific students' tuition is to be paid from the GTF account. The few remaining GTFs are awarded by the Associate Dean on a first-come and need basis.

c) OGS submits a grant proposal each year to the Graduate & Professional Opportunities program (G*POP) for support of minority students in various academic areas. Through this program 26 students receive monthly stipends of almost $400 and tuition. The principal function of one of the Assistant Deans is to administer this program and to coordinate the recruitment of minority students.

10. Centralized Record Keeping

A file is maintained on every graduate student who is active or has been active in the last 15 years. At present, this amounts to 11-12 thousand files. This repository of information is essential for advisement, contract work, GPA evaluation and graduation qualification. These student files contain admission information, grade records, candidacy forms, financial aid summaries and any correspondence involving the student; and are updated by OGS as needed. The principal

updating involves reports of comprehensive examinations, candidacy approvals, probation/disenrollment activity and grade reports. Grade reports arrive after the end of each semester in multiple copies and OGS is responsible for their distribution to the appropriate graduate units. Unfortunately, the computerized records system which produces the grade reports has no direct access to graduate unit information for each student, consequently the grade reports cannot be sorted automatically by unit. In the past, the student file for each of the nearly 4000 grade reports was consulted in order to determine which was the appropriate unit. Starting with the Fall, 1984 semester, the grade slips were sorted by "major", a similar but not identical descriptor. While it did speed up delivery of grade reports to the units, a significant number of errors were made largely due to student misunderstanding and misidentification of the "major". In any event, each of the grade reports finds its way to the correct student file every semester through the work of one office staff member.

11. Interpreting and Explaining Graduate Policies to Faculty and Faculty Committees

a) A dean is assigned ex-officio to each college and departmental graduate committee in order to address questions as they arise, assist in the formulation of policies and in securing resources for graduate studies.

b) In addition, the deans respond to more specific departmental inquiries and are involved from time to time in ad hoc University committee work that affects graduate education at UNM.

12. Granting of Variances to Policies and Changes of Major

Requests are received from students and faculty to approve exceptions to University regulations due to unusual circumstances. These problems are individually reviewed by the Dean or Associate Deans to determine the impact of the proposed change on quality issues, or in relation to potentially important precedent-setting factors. Those variances which constitute major policy exceptions are referred to the Senate Graduate Committee for study and determination.

13. Support Services to the Senate Graduate Committee

A Faculty Senate committee composed of representatives appointed by the colleges/schools/division, called the Senate Graduate Committee (SGC), is responsible for authoring academic policy regarding graduate affairs. This committee has the responsibility of approving revisions to the Graduate Bulletin, the University contractual document with graduate students. The committee in concert with OGS also oversees graduate program reviews, approving procedures, appointment of reviewers, and evaluates written reports for recommendations involving University action. A considerable amount of recordkeeping and communication is involved in serving this committee. One staff person provides recording service to the committee chair and the SGC subcommittees, prepares minutes and memos, and records all Graduate Bulletin changes. This person also tracks and records faculty approvals for graduate instruction and all graduate curricular changes for each unit, since this ancillary recordkeeping is needed for later use in Graduate

Bulletin revision. (The OGS uses the guidelines set down by this committee as the basis for its policy monitoring.)

14. The Graduate Bulletin

The updating, editing and publication of the Bulletin is carried out by the combined efforts of the dean, associate dean and one staff member. While ongoing records are kept of curricular changes, faculty approvals and policy changes/additions during the two-year period between Bulletins, graduate units, colleges/schools/division and other organizations represented in the Bulletin are contacted for updated material. This material is checked for policy discrepancies, etc., before it is sent to the Printing Plant for galley proof. Galleys are also checked by each of the groups listed above and also by a staff member in OGS. The UNM Bookstore pays for the publication of the Bulletins which are sold both to the OGS (who is responsible for distribution to each faculty member involved in graduate education at UNM as well as to other college/university libraries) and to students and others purchasers.

15. UNM Off-Campus Graduate Centers

The University has two off-campus graduate residence centers: one at Los Alamos and the other at Santa Fe. The OGS works with the Center Directors on their program reviews and interacts with the Directors to address specific problems.

a) The Los Alamos Graduate Center has been in operation for 30 years and in the 1983-84 academic year it offered 47 courses repre-

senting ten UNM departments, among them two videotaped courses. As of Spring 1984 a total of 363 students have graduated from the Center, which serves as a critical link for interaction between UNM faculty and graduate students at the Los Alamos National Laboratory.

b) The Center for Graduate Studies at Santa Fe was established in response to a needs analysis resulting from numerous requests from area residents who could not commute to Albuquerque for courses to further their educational needs. State government employees are heavily represented in these classes.

16. The Graduate Student Association

The OGS works closely with the Graduate Student Association in an effort to increase graduate student awareness of policies pertaining to graduate programs/degrees and to monitor concerns voiced by graduate students. The assistant dean in the OGS regularly attends all meetings of the GSA Council and is able to clarify policies, etc. first-hand for the Council. This has led to continued development of meaningful cooperation between the OGS and GSA.

17. Other Routine Functions

In addition to the specific functions previously enumerated, routine functions involved in the operation of any administrative office are carried out by the various staff members as appropriate (i.e., preparing annual reports, conducting orientation sessions, etc.).

SECTION B. RESOURCES OF THE OFFICE OF GRADUATE STUDIES

The Office of graduate Studies staff consists of the following positions:

1. List of Administrative/Clerical Staff

a) 1 Graduate Dean (.66 FTE)
b) 1 Associate Dean (.66 FTE)
c) 1 Advisory Associate Dean (.20 FTE) (annual appointment of faculty, no salary component)
d) *2 Assistant Deans (1 for minority affairs) (2.0 FTE)
e) 1 Assistant to the Dean (1.0 FTE)
f) 3 Staff Assistants (3.0 FTE)
g) 1 Administrative Secretary (1.0 FTE)
h) 3 Clerical Specialists (3.0 FTE)

2. Total Finances Budgeted

Total salaries budgeted $222,790
Total general expense budgeted 35,510

3. Estimated Major Function Costs**

a)	Admission	$ 27,100
b)	Public Relations	25,900
c)	Student Problems	11,600
d)	Quality Issues	46,600
e)	Contract Processing	17,100
f)	Graduation	19,600
g)	Fellowships	39,100
h)	Central Records	7,200
i)	Policy Delivery	31,600
j)	Granting Variances	10,100
k)	Policy Formulation	19,300
l)	Graduate Bulletin	8,000

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* A search is currently underway to fill one position
** Figures rounded to the nearest hundred

SECTION C. PROBLEMS AND DILEMMAS

Given the present structure of the Office of Graduate Studies, there are obvious problems and dilemmas involved in the functions as described. However, some of the issues that the Office addresses are not specifically related to its own structure, but are associated with University life and should be objectively addressed by some office with overview functions. Vision, communication skills and material resources, beyond what is relegated to the individual units, should be part of what such an office can contribute. Several such problems are briefly listed below, under the numbered functions of the Office. Only problems with major functions are addressed.

A pervasive problem which crosses many of the functions involves the reaction of University faculty to monitoring. Regardless of who carries out monitoring, or enforces accountability, it may be met with resistance and resentment. This is particularly acute when peer review is absent and the monitoring body or individual has no rewards to use as incentives for excellence in handling routine graduate affairs.

1. Admissions

The collation of admission documents by OGS could be done by the department/colleges directly, or by the University Admissions and Records Office. (In 1983, OGS attempted to have graduate admissions placed in the Admissions and Records Office, but even with increased resources, that office declined the task.) Were each department to handle its own admissions documents, a significant increase in the resources allocated to each college would be needed.

2. Public Relations and Community Interactions

If anything, this function should be given additional support. The resources for graduate recruitment at this University is not nearly commensurate with those directed towards undergraduate recruitment. Increasingly, individuals are changing careers even at quite advanced levels. While some departments must continue specialized recruiting efforts, a systematized approach to all graduate recruitment should be considered. Intensified recruitment of minorities and women should be one of the principal components of such an overall plan. The OGS should assist departments and colleges in meeeting their recruitment needs.

4. Advisement/Facilitation on Academic and Personal Problems of Students and Departments

Many of the problems students experience with graduate studies are known to reflect poor advisement at the unit level. The units

may require more advisement resources as well as greater awareness of and attention to procedural details. Few incentives exist for faculty to pay much attention to these issues. It seems that some avoid advisement altogether. Students, likewise, are often negligent in regard to their specific responsibilities and look elsewhere to impute blame when problems are due to such negligence. More effective ways must be found for simplifying operations, while simultaneously enhancing awareness of key procedures.

The University as a community has its fair share of individuals who relate to students in a negative manner; hence grievances inevitably arise. The OGS staff attempts to deal discreetly and justly with sensitive issues. Problems may also arise when the authority of the Graduate Dean is questioned by defensiveness in the departments, or by the reluctance of students to accept responsibility for problems they themselves have generated.

5. Quality Evaluation and Control

a) and b) Approval of faculty and courses: OGS can only respond to the materials submitted by the departments/colleges on these approvals. Perhaps this function could be done at the college or departmental level by graduate committees. These committees would need to be the responsible parties, and perhaps would then take the peer review function more seriously. The Senate Graduate Committee has a function in this area as well.

c. Monitoring Student Standing

Calculation of graduate students' GPA's could be done at the college or department level. (This was suggested by OGS some time ago but the departments almost unanimously resisted the change.) A major obstacle to the timely calculation of GPA's is that the current routing of grade slips to the appropriate departments is not efficient. At present the record systems's software cannot accommodate this calculation. The variety of coursework included and excluded in the graduate GPA necessitates the hand calculation of GPA's in OGS. Algorithms capable of computerizing this process can be created, but the resources have not been allocated for this process. The writing of these programs must be supervised by someone who fully understands the issues.

d. Evaluation of Theses and Disssertations

This is primarily the task of each student's faculty committee. Obviously, the OGS does not presume to have the omniscience necessary to evaluate and confer final approval on each topic. A graduate committee of a major college was approached by OGS this year to serve as such a quality monitoring unit and the committee themselves declined to undertake these rather extensive labors. Other graduate committees have met so infrequently that they are unlikely candidates for the performance of this task. Perhaps the Deans could be called upon to attend more directly to theses/dissertations in their respective units. External review by peers in the field has been suggested as one way of providing outcomes of the objective evaluations of the

products of our educational process.

A typical problem in the area of monitoring theses/dissertations is that faculty have, at times, expressed annoyance at being questioned about their students' work. While this reaction is understood, it seems unlikely that they would be always willing to accept criticism from peers. At least the questions would be informed within the discipline's perspectives.

Most of the manuscripts submitted to the OGS are returned to the student for correction on matters of form or style. This continues to be so even though the thesis/dissertation committee chairman verifies that the manuscript is satisfactory for microfilming. Such editorial reading might be done in the colleges, but only if the responsibility were taken seriously and the respective faculty members were willing to devote the time required for such reading.

7. Screening and Entering Graduate Assistantship Data into the Payroll/Accounting System

The contracts originate in the graduate units. Because the data on the contracts are important in the context of University funding, they must be correct. In addition, the contracts must be processed rapidly so as not to delay the students' paychecks. The result is that thousands of contracts must be processed in a two to three week period with high accuracy. The turnover in the staff in the units which prepare the contracts is high. The staff is frequently unfamiliar with the contract form and, consequently, there is a high error rate. This, in turn, consumes time at OGS during a critical period.

We are working in the off-peak periods to develop an educational program to help resolve this problem.

8. Qualification of Students for Graduation

This process serves as a final check on policy control and the departments would need to attend to the process with considerable care, if it were decentralized. The concern within OGS is that departments/colleges would waive general university requirements on a wholesale basis rather than deal with the time-consuming inconveniences of policy enforcement. Supporting this concern is the fact that about 90% of the requests for waivers come after the point that records are checked for impending graduation and students are found deficient of University or unit requirements. It seems quite clear that some faculty and students never consult the Graduate Bulletin with regard to even the most fundamental of requirements. If more than a few departments do not advise adequately now, can they really be expected to monitor the results of their own poor advisement?

An additional problem: since a graduation list is ultimately compiled in some centralized place for printing, if the lists were generated in the units, the obstacles in the way of timely compilation and accuracy problem would likely be compounded.

9. Allocation of Various Fellowships

University graduate fellowships are insufficient to meet the needs of even the most deserving students. The OGS does not administer and award all of the University fellowships and, therefore, the

perception that the overall allocation of awards is either unfair or inefficient cannot be dispelled by changing the policies or procedures of OGS alone. Currently, the process of allocating the fellowships that OGS controls has been streamlined. It is done with the input of a representative group of faculty selected from diverse units and cutting across all colleges. A key issue in the timely allocation of awards is the prior commitment of University funds so that applications can be processed in the semester before the award begins. (In the past, University funds have been allocated to the OGS very late in the spring or early fall semesters, making this process of dispensing awards and refunding tuition chaotic and pressured.)

10. Centralized Record Keeping

Many problems in recordkeeping have already been mentioned. It is clear that the admissions and records system at the University is geared toward undergraduate records only and graduate records and approvals are much more complex. Those who advise students undoubtedly need access to a complete student record, making some duplication of records necessary between units and any centralized office.

12. Variances to Policies

As an issue of quality control, exceptions to policies must be carried out with an eye to the University's academic integrity. Currently this is the rubric of the Senate Graduate Committee with the OGS as their service arm. The problems are that some policies are

unclear and faculty have been known to resist subjecting themselves to the collective judgment of their peers.

16. UNM Off-Campus Residence Centers

a) Santa Fe Graduate Center funding is unpredictable since it is legislated directly. (This year, for instance, $30,000 was taken from its budget to fund a nonexistent Gallup residence graduate center.) Predictable funding with a close eye to community demand is sorely needed. The Director has worked tirelessly to make the Center more visible to the community but funding cuts have hampered her efforts.

b) Los Alamos Graduate Center. Accelerated development of telemediated courses should be given high priority as it would seem to be the primary way to consolidate our programmatic offerings.

SECTION D: OTHER FUNCTIONS THE OGS SHOULD BE EMPOWERED TO ADDRESS

1. Recruitment of Quality Graduate Students should be a major mission of the OGS. This would include a plan to present information on the University's programs in key places and also to establish a broader system of incentives (fellowships, stipends, recruiting funds) to attract students.

2. Support Services for Interdisciplinary Projects or Program Development.

Unit resources are scarce and competitive. Thus there is a general resistance to faculty collaborative efforts that do not feed directly back to the units. This phenomenon hinders the development of needed academic and service enterprises. While the office encourages such efforts, it has nothing concrete to offer them.

3. A Comprehensive Approach to Graduate Student Financial Aid.

A centralized source for graduate financial aid which is comprehensive and equivalent to the undergraduate financial aid office is needed without doubt. Student contingency funds should also be available for special needs of graduate students. In recent semesters, there has been a steady increase in legitimate requests from students in desperate financial difficulty.

4. A Stronger Advocacy Function for Salaries for Graduate, Teaching Project and Research Assistants should be carried out by the office with higher administration.

APPENDIX A

1. Summary of Tables
2. Table One: Graduate Degrees Awarded at UNM 1979/80 through 1984/85 (6 years) by Unit
3. Table Two: Graduate Degrees by Colleges and Departments 1979/80 through 1984/85.
4. Table Three: Master's Theses 1984/85 by Unit

Summary of Tables

The attached tables provide an overview of the graduate programs at the University which fall under the OGS. The purpose of the tables is to give a sense of the scope and size of the programs. Since graduate students do not progress on an annual basis predictably, data from the past six years have been assembled. Table 2 is a more detailed version of the information summarized in Table 1.

What may be readily noted from Table 1 is that the College of Arts and Sciences produces about half the doctorates and the College of Education half the master's graduates. This appears to have been relatively stable over the years surveyed.

There are almost 6 times as many master's degrees awarded as doctorates. Our best estimate is that about 70% of the master's degrees awarded at UNM are anticipated to be the student's final degree. These tend to be technically, service or artist performance oriented, rather than research focused programs of study.

All of the doctorates in 1984/85 wrote dissertations (or the MFA equivalent). There were no EdD degrees earned, nor have there been more than a few over the past ten years. Fifteen percent of the Master's candidates wrote theses in 1984/85. Table 3 summarizes the numbers of those in the various units that wrote theses.

A variety of departments (especially in Education) offer certifications that are not graduate degrees but which require graduate coursework.

Table 1. Graduate Degrees Awarded at UNM 1979/80 through 1984/85 (6 years) by Unit

Graduate Unit	Percent of Total Master's Degrees (N=4160)		Percent of Total Doctorate Degrees (N=700)	
Anderson School	(not through OGS)		.4	(3)
Architecture	2.3	(96)	--	--
Arts & Sciences	19.6	(815)	49.1	(344)
Education	48.2	(2008)	31.7	(222)
Engineering	11.6	(485)	8.3	(58)
Fine Arts	6.0	(251)	7.6	(53)
Medical Sciences	.6	(26)	2.8	(20)
Nursing	.8	(35)	--	--
Pharmacy	0	(0)	0	(0)
Public Administration	10.6	(444)	--	--

NOTES:
1. Medical degrees from the School of Medicine and degrees from the School of Law as well as master's degrees from the Anderson Schools of Management are not administered through OGS.
2. The College of Nursing began its master's program in 1978; the College of Pharmacy in 1984.
3. Architecture, Nursing and Public Administration do not have doctoral programs. Some departments in the Colleges of Arts & Sciences, Education and Fine Arts are also without doctoral programs as noted on Table 2.

Table 2. Graduate Degrees by Colleges and Departments 1980-85.

COLLEGES, DEPARTMENTS SCHOOLS, DIVISION	PhD 1979-80/ 1980-81	MS	PhD 1981-82/ 1982-83	MS	PhD 1983-84/ 1984-85	MS	PhD Totals	MS
Architecture (No PhD)								
Arch & Comm & Reg Pl	--	30	--	37	--	29	--	96
Arts & Sciences								
American Studies	13	1	12	3	1	4	36	8
Anthropology	10	21	10	21	9	34	29	76
Biology	16	19	8	9	14	22	38	50
Chemistry	9	18	14	11	15	12	38	41
Communic.Dis.(No PhD)	--	30	--	41	--	36	--	107
Economics	6	9	4	12	6	6	16	27
English	7	8	14	11	3	30	24	49
Geography (No PhD)	--	2	--	8	--	6	--	16
Geology	12	24	3	20	1	24	16	68
History	8	14	4	8	9	15	21	37
Ibero Am St (No MS)	0	--	0	--	2	--	2	--
Latin Amer St(No PhD)	--	11	--	12	--	15	--	38
Linguistics (No PhD)	--	6	--	1	--	5	--	12
Mathematics & Stat	10	12	3	17	8	20	21	49
Mod & Class Lang	13	6	6	26	10	22	29	54
Philosophy	1	2	2	6	5	5	8	13
Physics & Astronomy	5	11	2	13	10	11	17	35
Political Science	2	5	0	5	2	10	4	20
Psychology	18	13	13	13	11	18	31	44
Sociol.(PhD began 1977)	0	0	1	3	2	4	3	7
Speech Comm (No PhD)	--	25	--	21	--	18	--	64
Education								
*All PhD's	85		56		81		222	
Art Educ (No PhD)	--	30	--	16	--	29	--	75
Counselor Educ		71		88		95		254
Educ'l Adminis		62		56		101		219
Educ'l Founds		25		27		33		85
**Elementary Educ		157		154		130		441
HPER		73		51		65		189
Home Ec(FamSt)(No PhD)		12		11		13		36
**S.A.T.E. (SecEd)		126		96		73		295
Special Educ		128		167		118		413
**T.O.E.		--		--		1		1
Engineering								
Chem/Nucl Engr	4	19	9	14	10	26	23	59
Civil Engr	2	34	3	17	5	25	10	76
Computer Science	0	20	1	16	0	28	1	64
Elec & Comp Engr	5	58	5	67	23	78	22	203
Mechanical Engr	0	41	2	20	0	22	2	83

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* Statistics to break down PhD's by department not readily available.
**The COE has also undergone departmental reorganization - master's students are graduating from both "old" and "new" departments in this transitional period. These departments are asterisked.

Table 2. Graduate Degrees by Colleges and Depts 1980-85 (cont'd)

COLLEGES, DEPARTMENTS SCHOOLS, DIVISION	PhD 1979-80/ 1980-81	MS 1979-80/ 1980-81	PhD 1981-82/ 1982-83	MS 1981-82/ 1982-83	PhD 1983-84/ 1984-85	MS 1983-84/ 1984-85	PhD Totals	MS Totals
Fine Arts								
ALL MFA's	9		18		10		38	
Art/Art History	3	62	4	53	8	35	15	150
Music & Mus Ed (No PhD)	--	18	--	11	--	19	--	48
Theatre Arts (No PhD)	--	3	--	4	--	11	--	18
Medical Sciences	6	15	10	6	4	5	20	26
Nursing (No PhD)	--	8	--	4	--	23	--	35
Pharmacy (graduate programs began 1984								
Public Admin (No PhD)	--	151	--	167	--	126	--	444

Table 3. Master's Theses 1984-85 by Unit

Graduate Unit	No. of Theses 1984-85		Percentage of Total Theses
Architecture			
Community & Regional Planning		2	2%
Arts & Sciences		45	43%
Biology	10		
Chemistry	3		
English	5		
Geography	1		
Geology (required)	12		
History	1		
Latin American Studies	1		
Psychology	8		
Speech Communication	2		
Philosophy	1		
Sociology	1		
Education		3	3%
CIMTE	1		
Special Education	2		
Engineering		31	30%
Chemical/Nuclear Engr	10		
Electrical & Computer Engr	15		
Mechanical Engr	6		
Fine Arts		13	12%
Art/Art History (required)	13		
Nursing		11	10%

B. SIGNIFICANT DEVELOPMENTS IN THE OFFICE OF GRADUATE STUDIES.

1. Interactions of OGS with SGC.

a. Graduate Bulletin Revisions. Major bulletin changes were approved which

1) allow the student to choose the Graduate Bulletin which will govern requirements to be fulfilled for graduation: either the catalogue in effect at the time of entry into the degree program or a single subsequent catalogue;

2) remove the "ten-year limit" and now gives five years from the time the student is formally advanced to candidacy by the Dean of Graduate Studies in which to complete the dissertation;

3) remove the barrier from obtaining more than one master's degree in the same department;

4) permit transfer of up to 50% of credits required for the dual, joint and three-two degree programs involving collaboration between UNM and NMSU or NMIMT in Latin American Studies, Community and Regional Planning, Business Administration/Management, Agricultural Economics and Agri-Business;

5) eliminate the requirement that 18 semester hours in addition to the master's degree or equivalent and exclusive of dissertation must be earned in courses numbered 500 or above.

The SGC reaffirmed its belief that the granting of Honorary Degrees is one of the most important responsibilities of the University faculty, and called for development of procedures that uphold existing criteria used for the award of Honorary degrees made under extraordinary circumstances.

b. Program Changes/Modifications. The following programmatic changes and modifications were approved: a) addition of a Plan II option for the M.S. in Pharmaceutical Sciences; b) use of 9 hours towards both undergraduate and graduate degrees by Pharmacy students provided that they apply in advance for such use and also maintain at least a 3.0 GPA; approved an exception, for certain Chemistry students who do more tutorial work and less coursework, to the rule requiring more than 50% of coursework be taken with other than a single professor.

c. Graduate Program Reviews. Program reviews of the Departments of Biology, Economics, Foundations of Education, Linguistics, and Mechanical Engineering were conducted this academic year. In each case a member of the UNM faculty outside the department served with the review teams while they were on campus, and a member of the Senate Graduate Committee met with the Graduate Dean in an exit interview with the full review team. Both the involved UNM faculty and SGC members are to be commended for their efforts in these reviews. Specifically we thank Professors Marc Price, Cary Morrow - Biology; David Sanchez, Rod Lievano - Economics; Vivian Heyward, Barry Gaines - Educational Foundations; Jon Tolman, Douglas George - Linguistics; and Mohammad Jamshidi, Richard Anderson - Mechanical Engineering. Willingness on the part of faculty to serve in this way is an indication of faculty commitment to enhancing the quality of graduate education at UNM.

The SGC discussed its role in the follow-up stages of graduate program reviews and of overseeing implementation of recom-

mendations made by reviewers. The committee plans to meet with department chairs and deans of the respective colleges to discuss their program reviews. The SGC met with the former chair as well as the acting chair of the Department of Health, Physical Education and Recreation; plans to meet with Dean Colton were of necessity deferred until Fall, 1985. Professor Larry Ross, Chair, Professors Huaco, May and Fiala, and Dean Garcia met with the committee independently to discuss perceived continuing problems in the Sociology department. Concluding these discussions, the SGC approved establishment of an administrative oversight committee to work with the Department of Sociology in alleviating its problems. The oversight committee will be composed of a representative from the Provost's office, two SGC members, one Arts and Sciences Department Chair and the Dean of A&S (ex-officio). The committee will function for a period of two years, recommending another external program review in the third year, if necessary.

2. 1984-85 Graduate Lecture Series.

The Graduate Lecture Series presented another array of fine speakers, who, in some cases, dazzled audiences, and in all cases were provocative and informing. Linus Pauling drew an overflow audience for his lecture "The Nature of Discovery: the History of the Chemical Bond," on September 27th. While on campus, Pauling addressed many groups and conducted several seminars for scientists, ranging in theme from nutrition to metals. On November 15th Annette Kolodny of Rensselaer Polytechnic Institute spoke on the restructuring of the American literature corpus. Her lecture, "The Integrity of Memory: Creating

Anew the Literary History of America," was both controversial and stimulating. Her visit coincided with the appearance on campus of Bernice Sandler, a major advocate in the women's movement. Kolodny and Sandler at different times dealt with the issues of women, scholarship and professionalism.

Heiko Oberman, the world-renowned Reformation scholar at the University of Arizona, presented the third lecture on February 28th, "The Significance of Martin Luther: A Reassessment." Oberman was by far the most satisfying of the graduate lecturers, as he revealed certain historical and theological nuances not generally acknowledged by the Luther scholarship. The final lecture was delivered by the eminent developmental and psycholinguistic scholar, Jerome Bruner, who is George Herbert Mead Professor of Psychology at the New School for Social Research in New York City. His topic was "Narrative as a Mode of Thought."

OGS is pleased that it once again was able to attract such notable scholars and authors, despite not receiving an increase in appropriations for the series. The university and local community repeatedly have expressed their appreciation for the variety of themes and the professional stature of guest lecturers in the series.

3. Graduate Notes. Two issues of the Graduate Notes were published this year in the OGS' ongoing attempt to keep the university community informed about changes and improvements in the overall conduct of graduate affairs.

4. Center for Graduate Studies at Los Alamos. Fifteen students completed graduate degree programs in Los Alamos in 1985.

Recommendations made in the 1984 review of the Center began

to be implemented with the creation of a joint UNM-LANL Oversight Committee and the construction of a television link between UNM and LANL. Administrative functions, budget procedures and faculty policies have been established at UNM in anticipation of the mediated instruction mode. Release time at the Laboratory has been established to accommodate daytime live mediated instruction from UNM.

A new administrative organization called the Education Policy Working Group has been organized at the Los Alamos National Laboratory. Its function is to act on all phases of employee training and education.

5. Center for Graduate Studies at Santa Fe. There have been no major changes at the Santa Fe Graduate Center during the past academic year. In general we have maintained the same balance between courses in Education and Public Administration in the work of the Center. The trend of larger enrollment in Education courses has been sustained. A few new courses have been introduced, one of which was a course in Stress Management offered by the Department of Health, Physical Education and Recreation. In addition, a jointly taught course by Professors Hordes and Leving (History/Anthropology Departments) provided an important new tradition for the Center, as it is based on the use of local resources.

The main concern is still budgetary, as the Center has been faced with a serious cut-back.

There has been one change in the Center's staff with Betsy Bennet joining the staff in September, 1984.

6. Graduate Student Association. During 1984-85 the GSA a) joined the Greater Albuquerque Chamber of Commerce; b) purchased an 512K Macintosh microcomputer for the GSA Office - the optical character reader is now in service for the CPT word processor; c) expanded the office to include a student workroom; d) continued lobbying the state legislature to represent graduate student interests at the state level; e) published a regular editorial colum in the New Mexico Daily Lobo; f) published the GSA Newsletter at the beginning of each semester; g) invited a number of speakers from the University and state and federal government to talk at GSA Council meetings; and h) participated in the final interviews during the presidential search. A fuller report is attached as Appendix C.

7. Faculty and Departmental Development. In an effort to improve cohesiveness and decision-making within departments, the OGS responded to requests to conduct day-long retreats for the Departments of Physiology and Biochemistry on March 11 and May 6, respectively.

C. SIGNIFICANT PLANS AND RECOMMENDATIONS.

While a significant number of those projections and recommendations listed in previous Annual Report have been implemented, there remain some that seem particularly important:

1. Establishment of a procedure to assist summer-only students in the cumbersome readmission procedures necessitated by these students being removed from the computer.

2. Assessment of the entire policy on non-degree status.

3. Expansion of the Presidential Scholarship program for graduate students.

4. Taking whatever steps are necessary to secure the kind of stipends and benefits offered at comparable neighboring institutions thereby making UNM's TA/GA program even minimally competitive.

In addition to those listed above, it is imperative that funding be found to augment the meager financial assistance available to graduate students. Scholarship and fellowship monies are in critically short supply and many excellent students are deterred by lack of financial aid available to them. If UNM is to attract graduate students with great potential, and also keep them, ways must be found to provide more support for these students. Exploration should be continued with the Development Office to tap all available community resources. And ways of imparting accurate conceptions to the Legislature must be found if graduate education is to improve.

D. PROMOTIONS OF STAFF.

Ruby Curtis, CSIV to Adminis. Secretary, 7/1/84.
Mary Kollander, Adminis. Coordinator to Asst. to the Dean 9/1/84.
Koelle Robinson, CSV to Staff Assistant, 10/1/84.
Barbara Wright, CSV to Staff Assistant, 3/15/85.

E. APPOINTMENTS TO STAFF.

Emily Baca, CSV, 10/29/84.
Barbara Wright, CSV, 12/3/84.

F. SEPARATIONS FROM STAFF.

Jane Brill, Staff Assistant, L.W.O.P., 7/9/84.
Ruby Curtis, Adminis. Secretary, 5/23/85.
Antonio Gomez, Assistant Dean, 3/11/85.
Katie Montoya, CS-V, 1/25/85.

G. DEAN A. CHARLENE McDERMOTT.

1. Travel and panel participation.

a) Council of Graduate Schools in the U.S. Twenty-Fourth Annual Meeting held in Washington, D.C., December, 1984. Elected COGS Dean-in-Residence for 1985-86 academic year.

b) Gave panel presentation on UNM's Latin American graduate programs at Western Association of Graduate Schools Twenty-Sixth Annual Meeting held in Honolulu, Hawaii in March 1985. Named President-elect of WGS.

c) Participated in Peace Seminar at UNM.

d) Elected Chair of the Council of Graduate Deans of New Mexico State Universities.

2. Publications.

a) "Materials for an Archaeological Analysis of Richard of Richard of Campsall's Logic." De Ortu Grammatica: A Tribute to Jan Pinborg. John Benjamins, 1985.

b) Review editor: Journal of Buddhist Philosophy.

c) Board of Editors of Philosophy East and West.

H. ASSOCIATE DEAN FRITZ S. ALLEN.

1. Publications.

a) Kinetics of the Reaction between Hydrogen Selenide Ion and Oxygen, K.L. Nuttall and F.S. Allen, Inorg. Chim. Acta, 91, 243-246 (1984).

b) On the Resolution of Nuclei Acid - Ligand Binding Sites by CD First-Neighbor Analysis, F.S. Allen and D.M. Gray, Biopolymers, 23, 2639-2659 (1984).

c) On the first Neighbor Method for the Representation of CD: The Definitive T Matrix and Considerations of Various Techniques, F.S. Allen, R.L. Ratlif, and D.M. Gray, Biopolymers, 23, 2661-2668 (1984).

d) Redox Reactions of Hydrogen Selenide Ion, K.L. Nuttall and F.S. Allen, Inorg. Chim. Acta, 92, 33-36 (1984).

e) Selenium Detoxification of Heavy Metals: A Possible Mechanism for the Blood Plasma, K.L. Nuttall and F.S. Allen, Inorg. Chim. Acta, 92, 187-189 (1984).

f) Hydrogen Selenide Ion Adsorption to Colloidal Elemental Selenium, K.L. Nuttall and F.S. Allen, Inorg. Chim. Acta, 89, 199-201 (1984).

g) Hydrogen Selenide Ion and Colloidal Selenium in the Catalytic Oxidation of Thiols, K.L. Nuttal and F.S. Allen, Inorg. Chim. Acta, 93, 85-88 (1984).

2. Activities in Learned and Professional Societies.

a) Attended Biophysical Society and gave paper entitled "Resolution of Nucleic Acid-Ligand Binding Sites by CD Analysis."

b) Attended Rocky Mountain meeting of ACS and gave paper entitled "Selenium Detoxification of Heavy Metals."

3. Attended COGS Graduate Deans' Workshop, Boston, MA, June 1984.

I. TABLES AND FIGURE.

Tables and Figure 1-7 provide statistical information on enrollment, both at the master's and doctoral levels, on the number of degrees awarded. Although the number of master's degrees increased during this period, the number of doctoral degrees awarded declined. Tables 8-9 show the number of teaching, graduate research and project assistantships awarded. Needless to say, there is meager financial aid available for graduate students.

Respectfully submitted,

A. Charlene McDermott
Dean of Graduate Studies

Table 1. Graduate Student Enrollment

Fall Semester, 1969-70 to 1983-84

Academic Year	Enrollment	Change from Previous Year	Percentage Change
1969-70	2,799	+ 134	+ 5.0 %
1970-71	3,210	+ 411	+14.7 %
1971-72	2,985	- 225	- 7.0 %
1972-73	2,909	- 76	- 2.5 %
1973-74	2,951	+ 42	+ 1.4 %
1974-75	2,923	- 28	- 0.95%
1975-76	3,289	+ 366	+12.5 %
1976-77	3,405	+ 116	+ 3.5 %
1977-78	3,470	+ 65	+ 1.9 %
1978-79	3,545	+ 75	+ 2.17%
1979-80	3,563	+ 18	+ 0.5 %
1980-81	3,657	+ 94	+ 2.64%
1981-82	3,757	+ 100	+ 2.73%
1982-83	3,852	+ 95	+ 2.53%
1983-84	3,802	- 50	- 1.30%
1984-85	3,772	- 30	- 0.79%

TABLE 2. MASTER'S LEVEL ENROLLMENT

Colleges, Schools Divisions	1980-81 Fall	Spring	Summer	1981-82 Fall	Spring	Summer	1982-83 Fall	Spring	Summer	1983-84 Fall	Spring	Summer	1984-85 Fall	Spring
SCH OF ARCHITECTURE & PLANNING	-	-	25	102	105	30	93	89	21	104	104	26	121	120
COLLEGE OF ARTS & SCIENCES														
American Studies	2	7	1	11	16	4	15	14	6	14	17	3	17	22
Anthropology	51	66	14	69	62	9	62	66	11	67	59	11	66	67
Biology	52	48	23	53	53	10	48	49	13	51	50	11	48	46
Chemistry	33	33	14	42	39	16	41	31	11	43	45	19	47	44
Communicative Dis	47	53	40	54	51	40	50	48	34	40	41	28	32	31
Comparative Lit	4	3	1	3	3	1	2	3	0	5	3	2	4	2
Economics	33	35	12	38	33	12	28	29	14	23	22	9	26	23
English	46	48	24	47	44	15	54	52	19	47	48	29	54	62
Geography	14	16	2	15	18	6	18	12	6	12	17	6	16	15
Geology	58	52	12	57	61	12	62	60	4	73	63	10	62	54
History	49	42	15	40	38	13	38	33	4	31	36	8	32	33
Latin Amer Studies	14	13	7	17	15	6	14	14	11	25	26	8	28	28
Linguistics	11	11	1	6	5	6	7	12	12	24	22	17	39	42
Mathematics & Stats	44	41	14	41	42	12	37	36	15	40	35	11	38	37
Modern Languages	36	38	21	41	36	0	35	36	18	30	30	22	21	17
French	(9)	(11)	(2)	(11)	(13)	(7)	(7)	(8)	(6)	(7)	(8)	(9)	(7)	(6)
German	0	0	(2)	0	0	(2)	0	(1)	(6)	(4)	(4)	(3)	(4)	(3)
Portuguese	0	0	0	0	(2)	0	0	0	0	0	0	0	0	0
Spanish	(25)	(25)	(12)	(26)	(34)	(9)	(27)	(26)	(6)	(19)	(17)	(10)	(10)	(8)
Philosophy	23	24	7	23	17	3	17	14	2	17	17	7	27	20
Physics & Astronomy	33	30	7	49	35	4	44	27	6	33	34	10	43	44
Political Science	12	12	5	14	7	5	12	14	6	11	15	5	19	14
Psychology	35	33	8	39	41	11	41	37	6	42	38	6	38	32
Sociology	22	15	7	14	15	6	11	12	3	15	16	6	15	13
Speech Communication	31	34	20	27	32	17	30	28	13	28	32	13	35	31

TABLE 2. MASTER'S LEVEL ENROLLMENT (Cont'd)

Colleges, Schools Divisions	1980-81			1981-82			1982-83			1983-84			1984-85	
	Fall	Spring	Summer	Fall	Spring	Summer	Fall	Spring	Summer	Fall	Spring	Summer	Fall	Spring
COLLEGE OF EDUCATION														
Art Education	33	25	20	30	37	22	39	36	19	36	35	21	51	50
CIMTE(formerly EIEd)	226	208	207	191	177	198	148	133	172	149	133	172	207	183
Counselor Educ	118	130	78	133	115	69	103	90	71	110	113	69	116	96
Educ'l Adminis	81	90	106	116	108	100	76	74	80	86	86	87	78	70
Educ'l Founds	37	41	25	51	46	24	56	54	30	49	46	33	46	35
Family Studies (formerly Home Econ)	20	16	12	21	15	10	16	18	6	12	15	7	13	14
Health, Phys Ed & Rec	99	98	81	99	97	71	85	95	60	106	102	64	69	73
SATE	159	134	118	135	132	82	109	105	81	106	106	59	103	76
Special Education	180	237	212	245	229	149	173	174	119	190	221	130	200	220
COLL. OF ENGINEERING														
Chemical Engr	36	30	5	27	29	9	23	23	6	21	25	7	28	27
Civil Engr	41	40	10	32	44	11	43	40	11	46	37	6	38	37
Computer Sci	55	60	18	69	61	14	58	57	25	97	101	29	119	98
Elec & Comp Engr	127	127	30	127	123	31	102	104	35	117	116	36	139	140
Mechanical Engr	50	44	6	34	38	13	37	33	9	36	41	12	53	51
Nuclear Engr	30	26	5	24	18	2	19	16	0	23	20	3	24	23
COLLEGE OF FINE ARTS														
Art & Art History	117	104	26	102	71	12	79	64	7	81	72	21	77	69
Music	35	37	13	32	31	13	27	26	13	21	26	16	32	31
Music Education	3	1	0	0	5	3	3	3	5	4	5	4	1	1
Theatre Arts	6	6	2	4	14	7	15	12	4	6	6	3	2	1
COLLEGE OF NURSING	34	33	12	44	39	14	42	39	14	47	46	20	48	53
Division of Public Administration	219	223	111	182	207	97	169	154	101	185	175	76	158	102
Medical Sciences Program	26	29	7	36	34	3	26	24	3	32	29	8	27	20
TOTAL	2382	2393	1404	2585	2438	1210	2278	2177	1106	2335	2323	1150	2477	2267

In Summer 1984 - 7 regular Masters; In Fall 1984 - 5 regular Masters; and In Spring 1985 - 5 regular Masters students listed incorrect majors; therefore, thee figures are not reflected in the totals above.

*General Secondary portion of SATE has been merged with Elem Educ to form the new CIMTE Teacher Education). (Curriculum & Instruction In Multicultural Teacher Education) Department. The adult portion has become an Interdepartmental college of education offering. Business Education, Industrial/Technical Education, and Occupational/Vocational Education have been reorganized into the Department of TOE (Technological and Occupational Education.

TABLE 3. DOCTORAL* LEVEL ENROLLMENT

Colleges, Schools Divisions	1980-81			1981-82			1982-83			1983-84			1984-85	
	Fall	Spring	Summer	Fall	Spring	Summer	Fall	Spring	Summer	Fall	Spring	Summer	Fall	Spring
COLLEGE OF ARTS & SCIENCES														
American Studies	46	40	10	34	38	12	28	30	8	31	29	15	38	34
Anthropology	38	35	5	31	40	3	39	32	4	41	39	5	47	41
Biology	40	37	14	31	40	11	35	36	10	40	38	12	41	34
Chemistry	26	20	7	19	16	7	14	22	9	25	18	6	20	19
Economics	19	15	4	16	19	3	19	18	7	22	18	7	17	17
English	24	22	7	20	23	10	21	21	7	29	30	6	32	25
Geology	11	5	0	3	4	1	6	8	0	12	15	3	20	19
History	38	40	7	39	45	5	45	44	7	40	36	8	38	32
Ibero-American St	15	15	7	15	8	3	15	14	1	13	10	1	10	7
Mathematics & Stats	20	16	2	17	20	7	19	18	3	27	25	10	28	25
Philosophy	14	17	1	7	15	2	13	12	1	9	10	1	12	11
Physics & Astronomy	26	26	9	24	31	7	27	37	12	41	44	20	52	46
Political Science	7	7	1	9	10	4	10	7	1	11	9	2	9	10
Psychology	15	18	7	20	20	1	22	25	6	36	27	7	33	27
Romance Languages	39	33	10	25	20	9	26	28	1	27	9	4	13	18
Sociology	11	11	2	8	16	6	15	16	1	16	17	0	18	13
SCHOOL OF MANAGEMENT	4	3	0	0	0	0	0	0	2	3	0	0	0	0
COLLEGE OF EDUCATION														
Art Educ	3	7	5	6	7	2	6	6	1	6	6	0	5	4
Counselor Educ	43	39	16	42	48	12	48	51	18	55	52	22	50	49
Educ'l Adminis	34	39	25	32	34	24	34	31	104	45	43	76	103	92
Educ'l Founds	41	36	11	48	50	20	50	62	30	67	77	36	69	64
Elementary Educ	40	39	24	31	39	31	33	34	24	37	43	35	64	50
Health,Phys Ed & Rec	47	49	28	52	56	33	49	53	25	57	52	17	53	42
Sec & Adult Tchr Ed*	35	39	33	43	42	23	43	44	23	40	46	18	39	40
Special Educ	33	37	22	44	60	41	51	52	38	60	60	35	56	58

TABLE 3. DOCTORAL* LEVEL ENROLLMENT (Cont'd)

Colleges, Schools Divisions	1980-81			1981-82			1982-83			1983-84			1984-85	
	Fall	Spring	Summer	Fall	Spring	Summer	Fall	Spring	Summer	Fall	Spring	Summer	Fall	Spring
COLLEGE OF ENGINEERING														
Chemical Engr	8	8	3	12	12	2	15	12	2	10	8	3	10	9
Civil Engr	9	9	2	5	12	1	14	14	5	18	17	4	20	17
Computer Sci	24	25	4	32	45	3	3	6	2	10	10	2	10	11
Elect & Comp Engr	24	25	4	32	45	8	37	48	8	51	49	18	62	54
Mechanical Engr	13	7	4	11	5	2	12	13	2	17	18	2	19	19
Nuclear Engr	12	12	0	10	11	3	16	15	5	14	13	3	11	12
COLLEGE OF FINE ARTS														
Art & Art History	29	31	7	32	55	12	27	39	7	33	29	5	39	31
MEDICAL SCIENCES PROGRAM	33	16	2	9	15	1	18	13	2	13	12	4	16	11
TOTAL	797	753	279	727	843	309	810	861	376	950	909	387	1054	941

* Includes Post Masters and MFA as well as Educ. Spec. Certificate students when appropriate.

In summer 1984 - 1, in Fall 1984 - 5 and in Spring 1985 - 6 doctoral students listed wrong degrees; therefore these figures are not reported in the totals above.

Table 4. Applicant Ethnicity.

	Fall 1984		Spring 1985	
	F	M	F	M
American Indian	18	12	6	5
Black	6	15	2	9
Oriental, Asian	8	55	5	26
Hispanic, Chicano	52	41	57	34
Other	525	560	327	207
Total	609	683	394	281

TABLE 5. MASTER'S DEGREES AWARDED BY UNIT AND BY YEAR

DEPARTMENTS BY COLLEGES DIV/PROGRAM	1927 thru 1959	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85
SCHOOL OF ARCH & PLANNING													6	7	13	10	23	20	21	18	19	13	16	16	18	20	18
COLL OF ARTS & SCI																											
American Studies																							1	3		4	
Anthropology	58	4	2	2	1	7		2	7	9	6	14	17	9	13	13	4	8	19	14	15	9	12	10	11	19	15
Biology	119	5	8	12	7	12	6	11	14	18	21	17	18	18	15	17	19	11	23	15	16	12	7	5	4	10	12
Chemistry	27		1	1	2	6	1	6	3	9	2	4	1	10	9	6	7	3	4	10	7	9	11	6	5	3	10
Communicative Dis.															3	19	20	11	21	18	20	16	14	19	22	19	16
Comp. Literature						1		1	1			3	1	2	2	1			2	2		1	3				1
Economics	44	4	2	2		1	3	1	6	7	8	5	3	7	11	6	3	3	6	5	4	3	6	5	7	5	1
English	150	4	6	5	6	6	17	21	23	17	23	12	20	14	19	10	10	12	4	14	7	5	3	7	4	13	15
Geography														4	3	5	3	2	3	2	2		2	2	6	2	4
Geology	72	13	11	9	6	5	4	2	6	9	8	7	5	7	8	5	11	9	6	13	12	10	14	10	10	11	13
History	120	3	7	12	7	10	13	15	11	19	14	15	13	21	16	11	4	6	8	3	3	11	3	3	5	9	6
Inter Amer Aff	25	1	2		2																						
Lat Amer Stu					3	3	3	1	3	4	16	7	14	9	10	8	10	8	7	9	4	6	5	5	7	4	10
Linguistics																			1	2	2	1	5	1		3	2

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TABLE 5 - MASTER'S DEGREES AWARDED BY UNIT & BY YEAR (Cont'd)

DEPARTMENTS BY COLLEGES DIV/PROGRAM	1927 thru 1959	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85
Math & Stat	47	2	6	3	4	5	8	11	3	22	13	10	17	14	19	6	3	7	7	4	7	5	7	11	6	10	9
Modern and Class Languages																											
Latin	2						1	2	1	5	3	9	9	4	9	3		2	4	2							-
French																						1		8	6	4	5
Spanish	124	6	3	4	2	5	9	12	10	16	6	15	8	12	7	7	4	6	3	1		3	2	4	6	6	10
Portuguese					2	1	3		3				3				2		1	1				1	1		-
German																											1
Philosophy	4	2	3			1	2	3	4	4	3	7	4	5	5	2	4	3	5	11	13	2		2	4	3	2
Physics & Astr	44	4	12	14	13	10	6	8	10	7	12	9	11	6	9	11	2	2	3	6	6	5	6	6	7	6	4
Political Science	63	2	3		2	4	2	2	3	3	8	5	6	5	2	3	4	1	5	6	1	4	1	4	1	2	8
Psychology	81	2	3	5	3	1	6	4	9	8	6	4	4	9	7	4	9	8	10	14	9	8	5	5	8	5	12
Sociology	20	1	1	1	1			1	3	1	1	3	2	4	4	5	4	6	1	3	2			2	1	1	3
Speech Comm	18	3	4	2	3	2	4	7	11	12	11	14	21	18	11	7	5	19	12	14	14	11	14	14	7	12	6
ANDERSON SCHOOL OF MANAGEMENT	19	1	3	5	4	9	9	8	28	30	20	25	29	27	28	52	52	45	47	46		91					-
Industrial Admin					1	2	2		2	1	1	1	1			6		15	2								-
COLLEGE OF EDUC																											
Art Education	47	4		1	1		4	4	8	3	7	8	9	18	20	23	9	14	22	19		12	8	9	7	9	20

TABLE 5. MASTER'S DEGREES AWARDED BY UNIT & BY YEAR (Cont'd)

DEPARTMENTS BY COLLEGES DIV/PROGRAM	1927 thru 1959	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85
Educ'l Admin	370	20	21	21	21	23	23	28	35	36	21	16	11	21	18	9	10	18	33	19	17	24	38	29	27	47	54
Educ'l Fdns													5	9	5	7	7	6	13	13	8	12	13	14	13	18	15
Elementary Educ	82	12	6	9	9	9	13	21	23	33	39	56	31	60	59	76	77	87	76	87	72	81	76	87	67	70	58
General Educ	121	1																									
Family Studies (Formerly Home Ec)																					6	5	7	5	6	3	10
Health, Phys Ed & Recreation																											
Health Educ													2	3	2	3	7	8	7	11	5	11	9	5	9	7	8
Physical Educ	44	6	4	8	11	10	8	12	17	18	19	12	18	12	14	13	13	8	11	22	11	17	18	10	11	20	19
Recreation					2			4	3	2	4	4	1	5	13	8	10	6	15	11	16	10	8	10	6	4	6
Secondary Educ	103	9	6	9	3*	9	7	4	13	17	27	26	20	40	48	46	38	59	32	34	63	67	59	50	46	38	43
M. Educ Scl		14	6	8	31	24	39	30	18	20	4																
Tch Bus Subj										2	4	11	4	6	6	4	4	6	8	6							
Tch English													9	10	1	2		6	1								
Tch Home Ec										4	6	3	6	5	8	6	6		5	2							
Tch Indus Subj										4	3	5	5	5	7	7	4	7	6	4							
Tch Math										1	7	16	10	7	28	9	12		3								
Tch Science										1	7	3	7	6	1	4	5		1								
Tch Spanish		8	6	10	21	9	14	16	8	8	1	6	3	7	8	3	4		7	1							
Special Educ										6	16	25	39	37	33	50	56	38	61	60	67	64	64	85	82	51	70
TOE																											1

*The MAT's are no longer offered

**Commencing Fall 1978, the MA in Home Economics has been awarded under the jurisdiction of the Department of Home Economics (now called the Department of Family Studies).

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TABLE 5. MASTER'S DEGREES AWARDED BY UNIT & BY YEAR (Cont'd)

DEPARTMENTS BY COLLEGES DIV/PROGRAM	1927 thru 1959	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85
COLLEGE OF ENGR																											
Chemical Engr		1	4		1		1	4	2		1		6	3	2	2	1		2	5	3	5	14	15	9	9	8
Engr Sci Mtls								1	1	2		2	1			3	1										
Civil Engr	34	6	7	8	7	7	11	12	12	15	13	10	15	10	6	7	13	9	12	13	15	20	14	6	11	14	11
Computer Science																3	3	3	4	10	8	10	10	12	4	4	21
Elec & Comp Engr	53	12	23	56	40	58	58	32	31	30	35	34	22	36	29	39	30	36	29	25	35	28	30	33	34	43	34
Mech Engr	35	11	15	27	28	23	26	5	26	15	25	18	20	19	8	3	4	9	7	8	1	18	23	10	10	7	11
Nuclear Engr				6	5	7	3	8	6	3	9	11	9	9	14	6	17	9	7	7	10	10	8	7	11	5	4
COLLEGE OF FINE ARTS																											
Art & Art Hist	65	4	6	5	9	7	6	6	14	13	24	15	11	15	14	18	24	20	18	29	13	31	31	36	17	15	23
Music	27	1	2	3	3	1	5	7	6	5	4	2	3	5	6	9	6	7	2	8	9	8	7	6	5	11	5
Music Educ	9	6	3	5	5	9	4	7	7	3	8	10	7	1	5		3	5		1	1	3				2	1
Theatre Arts																						1	2	2	2	8	3
DIVISION OF PUBLIC ADMINISTRATION												13	17	36	33	30	35	32	57	65	74	81	70	90	77	81	44
MEDICAL SCIENCE PROGRAM																	4		1	2	1	6	9	2	4	5	-
COLLEGE OF NURSING																						4	4		4	9	14
TOTAL	2025	182	196	278	282	313	347	345	434	484	527	547	568	680	682	692	665	680	724	751	634	797	697	715	992	699	714

TABLE 6. DOCTORAL DEGREES AWARDED BY UNIT & BY YEAR

DEPARTMENTS BY COLLEGES DIV/PROGRAM	1927 thru 1959	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85
ARTS & SCIENCES																											
American Studies	8		1	1			1	1	2	1	3	4	1	6	5	10	4	12	6	9	4	5	8	4	8	6	5
Anthropology	11	1			3					1	3	4	2	1	2	3	3	5	4	2	5	6	4	5	5	5	4
Biology	10			1	1	1	2	1	1	1	5	2	4	3	10	8	5	4	5	2	3	10	6	6	2	6	8
Chemistry	32	2	4	7	3	3	4	2	6	6	3	6	6	6	4	5	2	8	5	9	10		9	6	7	8	7
Economics													1	1	2	1	2	3	4	2	2	3	3	1	3	1	5
English	15	2	4	1	2	1	2	3	7	12	16	11	7	14	18	11	9	9	12	4	3	5	2	7	7	1	2
Geology				2	1	1	2	3	4	2	3	3	4	9	2	2	2	3	3	1		9	3		3		1
History	18		4	4	3	3	8	6	6	3	7	18	17	17	11	12	11	15	11	6	9	4	4	3	1	4	5
Ibero-Amer Stu					1			1	1	2	3	3		3	5	4	1	2			2	1					2
Mathematics				1	2	2	4	1	5	6	7	10	7	9	9	5	5	5	6	6	1	3	7	2	1	3	5
Philosophy												1	1	3	1		1	2		1	1	1		1	1	2	3
Physics	6	1	2	3	2	2	4	2	4	8	2	2	5	1	6	4	7	1	3	8	3		5		2	6	4
Political Science															2	3	2	1	1	1		2				1	1
Psychology				1			1		2	5	8	12	8	6	5	13	4	7	9	7	6	6	12	11	2	4	7

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TABLE 6 . DOCTORAL DEGREES AWARDED BY UNIT & BY YEAR (Cont'd)

DEPARTMENTS BY COLLEGES DIV/PROGRAM	1927 thru 1959	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85
Romance Languages												6	7	4	4	5	7	3	8	6		3	10	3	3	7	3
Spanish	14	1	2			1	1		3		2			4													
Sociology																									1		2
COLLEGE OF EDUC																											
C & I				2	1	1	5	5	4	9	18	25	22	26	32	30	20	12	19	14		29					
Education																							34	34	20	34	38
Educ Admin		2	1	1			3	2	8	4	10	8	3	4	8	7	2	5	5	4	5	5			1	3	
Educ Fdns										2	2	4	5	6	3	9	7	7	5	8	7	7			1	6	
General Educ			3		2																						
PPS					1	2	4	5	2	4	5	14	9	22	6	17	15	8	10	5		10					
COLLEGE OF ENGR																											
Chemical Engr							1					1	1	1	1	2	1		1		1			3	3		0
Civil Engr								1		2	3	3	5	4	3	1	3	1		2	2	1	1	3		2	2
Computer Science																									1		0
Elec & Comp Engr			2	4	5	4	3	10	7	10	3	5	7	7	7	6	9	3	4	1	3	3	2	2	3	3	9
Mech Engr							3	3	2	5	2	1	2	4	3	1	4	3	4	1					2		1
Nuclear Engr								2	1	1	1	3	4	2	1	2		2	2		6	3	1	3		3	6

TABLE 6. DOCTORAL DEGREES AWARDED BY UNIT & BY YEAR (Cont'd)

DEPARTMENTS BY COLLEGES DIV/PROGRAM	1927 thru 1959	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85
COLLEGE OF FINE ARTS																											
Art History												2			1	2	1		2			2	1	2	2	2	3
MEDICAL SCIENCE PROGRAM											1	3	1			3	2	1	6	5	3	3	3	4	6	1	3
SCHOOL OF MGMT																						1					2
TOTAL	114	9	23	28	27	21	48	48	65	85	106	146	129	163	152	166	129	122	135	104	76	122	115	98	94	117	128
MASTER OF FINE ARTS								1	2	1	2	1	4	3	2	4	6	4	4	1		2	7	11	9	3	7

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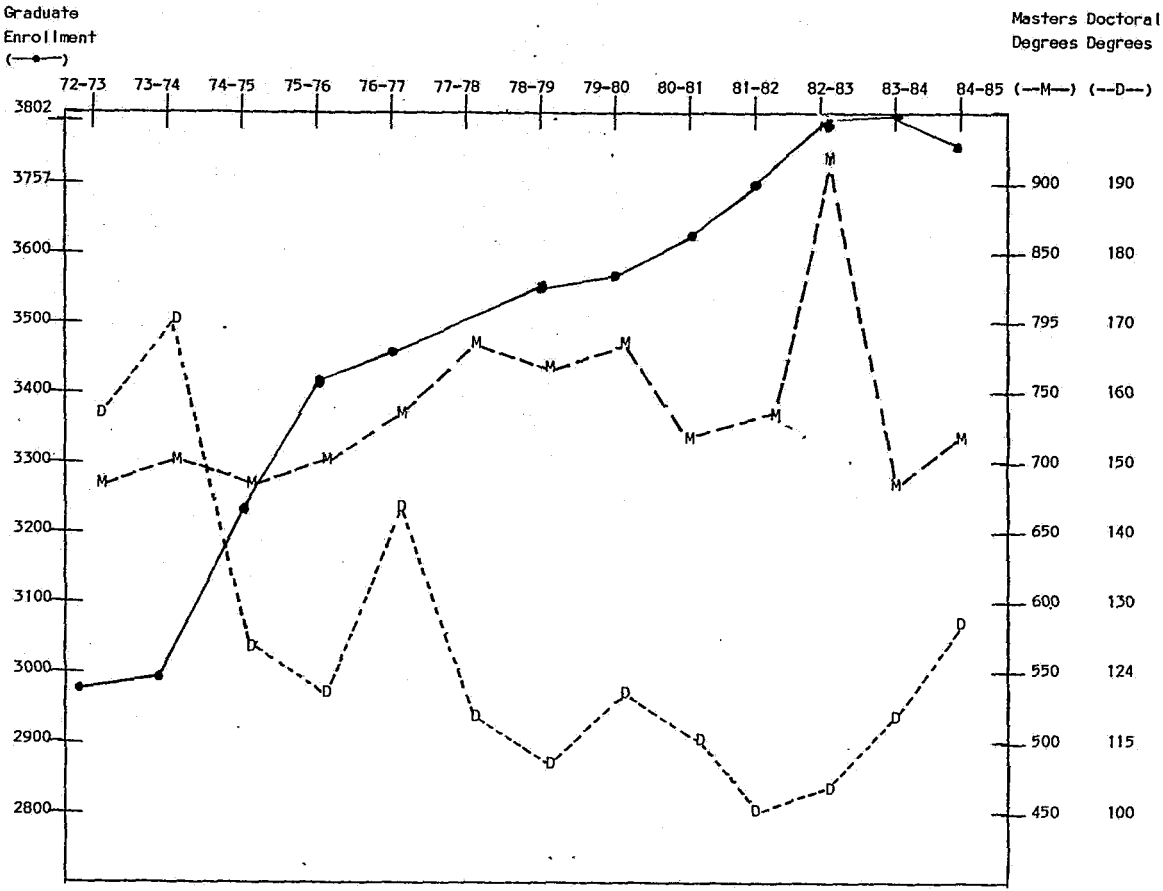

Table 7. Enrollment Table

Table 8. Graduate Assistants, Teaching Assistants, and Teaching Associates, 1984-85 (Number of Awards)

College, School, Division	Summer 1984	Fall 1984	Spring 1985
School of Architecture and Planning	10	10	11
College of Arts and Sciences			
American Studies	2	2	2
Anthropology	14	12	16
Biology	40	45	49
Chemistry	17	29	33
Communicative Disorders	6	3	5
Economics	11	11	14
Geography	3	2	3
Geology	15	21	21
History	15	17	18
Ibero-American Studies	0	0	0
English	42	47	43
Linguistics	1	1	1
Mathematics and Statistics	23	32	32
Modern & Classsical Languages	37	40	40
Philosophy	3	6	6
Physics and Astronomy	18	25	26
Political Science	7	8	7
Psychology	18	24	20
Sociology	8	7	7
Speech Communication	9	8	6
Total Arts & Sciences	299	350	360
Anderson Graduate School of Management	27	29	35
College of Education			
Art Education	4	3	2
C.I.M.T.E.*	11	9	10
Counselor Education	6	5	5
Educational Administration	7	3	3
Educational Foundations	7	7	10
Family Studies (formerly Home Econ)	2	2	2
Health, Phys Ed & Rec	37	41	43
Special Education	6	2	3
Technological & Occupational Educ*	13	3	4
Total Education	93	75	82

*General Secondary portion of SATE has been merged with Elem Educ to form the new CIMTE Teacher Education). (Curriculum & Instruction in Multicultural Teacher Education) Department. Business Education, Industrial/Technical Education, and Occupational/Vocational Education have been reorganized into the Department of TOE (Technological and Occupational Education.

Table 8. Graduate Assistants, Teaching Assistants, and Teaching Associates, 1984-85 (Number of Awards) (Cont'd)

College, School, Division	Summer 1984	Fall 1984	Spring 1985
College of Engineering			
Chemical and Nuclear Engr	3	5	7
Civil Engr	5	6	9
Computer Science	15	15	19
Electrical & Computer Engr	12	23	25
Mechanical Engr	8	7	9
Total Engineering	43	56	69
College of Fine Arts			
Art	33	32	35
Music	11	16	16
Theatre Arts	4	4	4
Total Fine Arts.	48	52	55
College of Nursing	1	1	2
Division of Public Administration	2	5	7
Other			
Art Museum	-	1	-
Chicano Studies	0	1	1
General Library Skills Ctr	3	4	4
General College	3	7	8
Latin American Institute	2	3	3
Multicultural Education	0	0	2
NM Research & Study Council	1	2	1
NM Research Study Council	-	2	-
Women's Studies	1	1	3
Total Other	10	21	22
Graduate Studies - Challenge Assistantships		5	5
GRAND TOTAL	493	559	593

Table 9. Research Assistants and Project Assistants, 1984-85 (Number of Awards)

College, School, Division	Summer 1984	Fall 1984	Spring 1985
Anthropology	1	0	2
Biochemistry	3	2	2
Biology	11	2	4
Bureau of Engr Research	63	48	51
Cell Biology	3	2	2
Chemical & Nuclear Engr	1	0	1
Chemistry	26	16	13
Clinical Nutrition Program	1	0	1
Continuing Education	0	0	1
Comptroller	1	0	0
Education, College of	0	2	3
Educational Administration	0	4	4
Educational Foundations ions	0	0	1
Electrical & Computer Engr	1	0	0
FC&EM, Div of Comm Med	0	1	1
Geology	20	18	15
History	0	1	1
Institute of Meteoritics	2	3	4
Latin American Institute	0	2	2
Mathematics & Statistics	3	0	1
Maxwell Museum	1	0	0
Microbiology	3	2	1
Pathology	0	7	1
Physics & Astronomy	16	19	23
Psychology	1	5	5
Southwest Resource Ctr	20	0	0
Special Education	0	4	2
Speech Communication	1	1	1
Tamarind Institute	0	2	3
TOTAL	178	141	145

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ANNUAL REPORT

CENTER FOR GRADUATE STUDIES AT LOS ALAMOS

July 1, 1984 - June 30, 1985

Don R. McLaughlin, Director

A. Achievements

Forty-four courses representing ten university departments, divisions and schools were conducted through the Center for Graduate Studies at Los Alamos during 1984-85. Three were videotaped courses.

Fifteen students completing degree requirements at the Graduate Center were honored at a joint convocation with the UNM-LA Branch College in May. Three BA degrees in computer science and two in electrical engineering were earned. Three MBA degrees, two MS degrees in computer science, two in medical science, and one each in chemistry, electrical engineering and nuclear enginering were awarded. The total number of graduates through the Center for Graduate Studies is now 378. A breakdown by degree is given in Table 1.

Other developments affecting the Graduate Center include:

* Replacement of UNM-LA Branch Director Herb Lyon with Virginia Higbie in September.

* Addition of senior accountant Debbie Valdez to the staff in April.

* Retirement of UNM contract accountant Lue Monochie in February, and assignment of contract to Jean Sveum.

* Completion of the third round of core courses for the MBA degree.

* New offerings in Chemical Separations, Electrochemistry, Entrepreneurial Engineering, History of Science and Gene structure.

* Study of the Center for Graduate Studies at Los Alamos as a class project.

* Establishment of a Graduate Center Oversight Committee.

* Preparation for an interactive television link between UNM and Los Alamos.

The addition of a senior accountant to the staff shared with the Branch College has been long overdue. Since the accountant began functioning in April, tuition procedures improved

considerably. Vax accounting has been shifted from a UNM institution-wide system to a detailed local system. Because the Graduate Center contract is a DOE contract, precise accounting is demanded by government auditors. Reimbursement vouchers and contract negotiations are now expedited much more smoothly with the new accounting procedures and staff.

The Los Alamos Branch College and Center for Graduate Studies were selected for a group study project in one of the Spring graduate management courses, Management 598: Strategic Planning. The team conducted conducted interviews, gathered data and prepared a report which formed a basis for class discussion. A copy of the report has been placed on file at the Office of Graduate Studies.

A Graduate Center Oversight Committee has begun functioning. The committee consists of six official members representing senior management, middle management and employee counterparts at UNM and Los Alamos National laboratory. Ex officio members include the Director, LANL Technical Coordinator, Deans of Graduate Studies and Engineering and Associate Provost for Community Education. Meetings were held in January and May to discuss programs related to the progress of UNM-LANL relations through the Graduate Center. Topics of discussion included released time for LANL employees and teachers, possible joint faculty appointments, special programs designed for Los Alamos needs, full-time baccalaureate programs, and live television courses. See the minutes of these meetings on file in the Graduate Studies Office for details.

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Final preparations have been made to start broadcasting televised courses from UNM in the Fall of 1985. LANL will not be the only recipient; initially local Albuquerque corporations such as Sandia National Laboratory will have enrollees. Two transmission antennas at Sandia Crest will have the capability to broadcast to a wide audience in the Albuquerque area, and a narrow audience to the North, including Santa Fe. Administrative functions, budget procedures and faculty policies have been established at UNM in anticipation of the mediated instruction mode. An instructional telecommunications coordinator and instructional developer are being hired. An experimental budget for the first year includes negotiated course fees to Los Alamos and Sandia Laboratories and remuneration to UNM faculty. A faculty Senate subcommittee began functioning in January to address policy issues. Equipment is in the process of being received and installed by Instructional Media Services and KNME-TV at UNM. Classrooms are being remodelled for video instruction. On the basis of surveys and management decisions, nine courses in engineering have been selected for video teaching in the Fall.

B. Plans and Recommendations

Video courses will probably expand in the College of Arts and Sciences and School of Management in the near future. Eventually a wider spectrum of courses is expected to develop in Los Alamos, including lower division and bachelor-oriented programs. Other uses of the video system may address needs in several professional

areas such as medicine, law and education. Starting as early as Spring of 1986 it may be possible to transmit courses from Los Alamos to UNM, using experts from the area.

More than ever before the boundary between the Branch College and the Graduate Center is drawing thin. Continuity between lower division and upper division programs requires careful correlation and planning.

Although relations between the University and the Laboratory are now on a better footing, and the potential for a wider-based education system is being realized, several areas relevant to the Graduate Center need to be addressed. A broader range of educational and professional training needs at the Laboratory are being identified. Alternative educational programs and institutions are being considered. The rolls of UNM and the Graduate Center in these new developments needs to be clarified and possibly expanded. The new opportunities for education in Los Alamos are attracting the attention of some groups, but a better system of communication with prospective participants needs to be developed.

Over the years the pendulum of the seat of management at the Graduate Center has swung from being centered predominantly at the Laboratory to being centered predominantly at UNM. Experience has shown that vital communication functions which are unique to each institution suffer at one or the other institutions when the management is one-sided. It seems that a more desireable situation would be to have a counterpart to the Director inside the Laboratory. This person with the title of say, Assistant Director of the Graduate Center, could represent the Director in communicating information to students when the Director is in Albuquerque. Further a Laboratory counterpart to the Director from UNM would

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represent the interests of the Laboratory and its employees with a perspective from inside the Laboratory. In the past several years the Technical Coordinator has provided a communication link between the Director and the Laboratory, but this situation could be improved by identifying a titled person with expanded duties, authority and visibility.

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Table 1. Degrees Awarded through the Center for Graduate Studies at Los Alamos

Year:	Bachelor 54-73	Bachelor 74-85	Master 54-73	Master 74-85	Doctorate 54-73	Doctorate 74-85	Total
Engineering:							
Chemical and Nuclear	0	0	47	7	4	0	58
Computer Science	0	7	0	16	-	-	23
Electrical and Computer	8	15	27	46	3	1	100
Mechanical	1	7	18	1	4	1	32
Materials	-	-	8	1	-	-	9
Science:							
Biology	1	0	0	0	0	0	1
Chemistry	5	1	9	2	18	1	36
Mathematics and Statistics	9	2	6	2	2	2	23
Medical Science	-	-	0	7	-	-	7
Physics	2	0	28	3	14	4	51
Other:							
Business	-	-	0	35	-	-	35
University Studies	0	3	-	-	-	-	3
Total	26	35	143	120	45	9	378

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Table 2. Enrollment and Budget Trends at the Center for Graduate Studies at Los Alamos.

Academic Year	70/71	71/72	72/73	73/74	74/75	75/76	76/77	77/78	78/79	79/80	80/81	81/82	82/83	83/84	84/85
No. of lecture courses	46	42	45	47	46	41	44	54	52	55	50	45	44	47	44
Individuals registered	410	414	522	448	498	450	480	520	608	599	537	425	480	494	439
Average enrollment in lecture courses	11	12	13	12	13	13	14	12	14	13	12	11	13	13	12
Enrollments:															
Individual study	26	41	63	46	40	39	26	42	57	56	52	30	41	49	29
Undergrad. lecture	93	65	75	244	197	319	337	211	398	377	309	238	221	349	351
Graduate lecture	425	421	527	310	378	227	259	456	346	341	280	238	302	241	173
Total enrollment	544	527	665	600	615	584	622	709	801	774	641	506	564	639	553
Student credit hours	1640	1632	1935	1736	1748	1639	1672	2020	2245	2198	1916	1570	1827	1875	1597
Budget ($x1000)	131.6	117.1	147.2	140.9	128.3	140.6	151.2	151.9	196.2	219.0	271.4	321.6	331.0	383.7	393.3
Cost per SCH ($)	80	72	76	81	73	86	90	75	87	100	142	205	181	205	246
Cost per lecture course ($x1000)	2.9	2.8	3.3	3.0	2.8	3.4	3.4	2.8	3.8	4.0	5.4	7.2	7.5	8.2	8.9

7/5/85

THE UNIVERSITY OF NEW MEXICO

CENTER FOR GRADUATE STUDIES AT SANTA FE

ANNUAL REPORT
July 1, 1984 - June 30, 1985

Vera John-Steiner, Ph.D.
Director

The major programs offered at UNM-SFGC are those leading to Master's degrees in Public Administration, Special Education, Adult Education, Elementary Education..with a focus on reading, Counselor Education, and Civil Engineering. In addition, we offer supportive and elective courses for students in these programs drawn from Arts and Sciences and Education. In general, enrollment has been steady in these programs and in the re-certification courses required by the State Department of Education. The only exception is Public Administration: enrollment has been falling from an average of 20 students per class in past years to 13.25 students, and the number of classes had to be decreased as well from 10 to 8 per year.

In spite of these changes, total enrollment for 1984-85 is slightly higher than the previous year (577 versus 566). While students would like us to expand our offerings in some areas, this is difficult to implement because of the general pressures on UNM faculty on main campus. For this reason we have come to rely more heavily on local adjuncts for some of our courses.

An important new addition to the Center is the availability of a Zenith computer and a modum. We are in the process of training the staff both on word processing programs and for computerized registrations. Because of the smallness of our operation, it is difficult

to have staff members attend main campus classes. Thus, this process is slower than we had originally anticipated.

We have continued to work closely with members of the Advisory Committee. We consult with individuals and have met with the group as a whole. Their input has been helpful; for instance, we are introducing a new course to the Center, PA-590: Microcomputer Application in Public Administration, in response to some of their suggestions. In addition, Mrs. Constance Castillo from the Santa Fe Public Schools and a member of the Committee, has continued to assist us in course selections.

The stronger local involvement of faculty members with the Center is also contributing to a slightly larger visibility. Professor Stanley Hordes, state historian, was written up in the New Mexican, detailing the field work conducted by his students in a course taught at SFGC.

A. CENTER FACILITY AND STAFF. A few minor improvements at the Center's facility were made by the College of Santa Fe: assigned parking space, carpeting and painting in the hallway, mail drop, winter insulation of the windows, etc. In general, the cooperation with the College of Santa Fe has been good. They are helping us to establish a computer course, and Bro. Donald Mouton was willing to forego an increase in the rental arrangement for the coming year in light of the Center's budgetary problems, i.e., the legislative unexpected cut back of $33,000.

The Center staff has remained the same, and Mrs. Betsy Bennet was classified as permanent half-time 9/17/84.

B. PROGRAM DEVELOPMENT

1. Public Administration Division. The basic course offerings of this division have remained the same. However, the public health administration courses are no longer offered since Professor Mueller has joined the AGSM.

2. Counselor Education. The third cycle of Master's students in this department have started their work during the last academic year. In addition to the ten students admitted into the program, the courses offered continue to attract people outside the program.

3. C.I.M.T.E. Courses in mathematics education are becoming increasingly popular at the Santa Fe Graduate Center. These are additions to the reading courses we usually offer and to the adult education program which was offered in SATE during the past year. The students in the SATE program have been quite successful as both the Santa Fe Community College and the Institute of American Indian Arts have employed them as instructional personnel.

4. Special Education. Courses offered in this department remain popular with higher enrollments.

5. Educational Administration. Professor James Miller, former superintendent of Santa Fe Public Schools, has become one of the adjunct professors in Educational Administration. His course offering was highly regarded.

6. Educational Foundations. This department is continuing its role of providing supportive and elective courses. Re-

search Methods in Education is a required course in the Counselor Education program and in other Master's programs. In addition, the director offered a Seminar in Language Acquisition course with particular focus on language minority students.

7. Civil Engineering. Interest in this program is steadily growing, due in part to the strong support of the State Highway Department.

8. Speech Communication. Students would be pleased if the department could provide us with more than one course a year. The Center's budget allows for more courses but the department is unable to provide instructors.

9. Political Science. This department offers one course per year and prefers to teach in the spring semester so the students can follow the deliberations of the legislature.

10. History/Anthropology. An interesting new course was offered by Professors Stanley Hordes and Frances Levine, New Mexico Colonial Archeology and History. We were grateful to the Department of Anthropology for their monetary support for this jointly taught course.

11. H.P.E.R. A course in Health Education was offered by Professor Marcia Sutton during the summer session. It was very successful, and we had hoped to continue offerings from this department. However, they were unable to provide faculty for us for the remainder of the academic year. It is our understanding that a Health Education Master's program will be a future possibility at SFGC.

12. Latin American Institute. This past academic year the LAI was unable to offer courses in Santa Fe. We very much hope to be able to include them in our course offerings in the future.

C. SERVICE. We have strengthened our informal contacts with the College of Santa Fe, Institute of American Indian Arts, and the Santa Fe Community College. For example, the recently established Santa Fe Writing Forum is a collective effort between the director and Professor Meredith Machen of the Santa Fe Community College. We are providing through this organization an opportunity for teachers and scholars to meet and discuss current developments in the field of literacy.

D. PROFESSIONAL ACTIVITIES. In the summer 1984, Dr. Vera John-Steiner lectured at the Max Planck Institute of Psycholinguistics in Nijmegen, Holland and the International Association of Applied Linguistics in Brussels, Belgium. In September 1984, she chaired a session and lectured at the International Congress of Psychology in Acapulco, Mexico. In December she addressed the Duke City Linguistics Circle and the National Reading Conference in St. Petersburg, Florida. In the spring, Dr. John-Steiner spoke at the Colloquium Series of the UNM-Psychology Department, the Southwest Psychologist Association meetings in Austin, Texas, the New Mexico TESOL meetings in Santa Fe, and she spoke at Mills College in Oakland, California. Her chapter entitled, "The road to competence in an alien land: a Vygotskian perspective on bilingualism," appeared in a volume edited by James V. Wertsch entitled, Culture Communication and Cognition, published by Cambridge University Press.

Professor John-Steiner continues to chair many doctoral dissertations. Four of her doctoral students received their Ph.D.'s during the last academic year and two, on whose committees she has served, also were granted their degrees. She is still chairing six committees and is a member of ten.

Non-teaching University Service. Women Studies Advisory Committee, Senate Graduate Committee, Department of Linguistics Policy Committee, and Director of the Santa Fe Graduate Center.

E. SUMMARY

There have been no major changes at the Santa Fe Graduate Center during the past academic year. In general we have maintained the same balance between courses in Education and Public Administration in the work of the Center. The trend of larger enrollment in Education courses has been sustained. A few new courses have been introduced... one of which was a course in "Stress Management" offered by the HPER Department. In addition, a jointly taught course by Professors Hordes and Levine (History/Anthropology Depts.) provided an important innovation for our Center, as it is based on the use of local resources.

Our main concern is budgetary, as the Center has been faced with a serious cut-back. However, with careful planning and spending we will be able to survive for the coming year. In the long run, the Center cannot provide the quality programs and range of services that the Santa Fe community has come to expect without appropriate funding.

Respectfully submitted:

Vera John-Steiner

Vera John-Steiner, Ph.D.
Director

APPENDIX C

PRESIDENT'S REPORT
GRADUATE STUDENT ASSOCIATION

1984-1985

INTRODUCTION AND ACKNOWLEDGMENTS

This year the GSA has become a more visible and dynamic organization. With the participation of several key graduates on the Council and off, the Association is more professional and credible. As in years past, we continue to experience problems of lack of institutional memory and general discontinuity. This report is written primarily for the benefit of my successors in the hope that they will carry on where I and my predecessors have had to leave off.

I would like to especially acknowledge the work done by the Chairperson, Dan Hardy (Biochemistry), Dan Pilon (HPER), Judith Walker (English), Viola Cordova (Philosophy), and Moira Hernandez (ASM).

PUBLIC RELATIONS

The GSA continued to have space on the editorial page of the New Mexico Daily Lobo, weekly for the first part of the Fall semester (approximately 2 1/2 to 3 pages, typed, double-spaced), and then biweekly thereafter. Relations with the Editor were somewhat strained though cordial. Relations with the reporters were good, though there were common problems with misquotes. Despite a standing invitation to the reporters to come to our monthly Council meetings, none came. The primary concern of the Association has been the continual lack of coverage of both University and especially graduate affairs by the paper. One option suggested to the Council is for graduate students to take the initiative and act as stringers, producing their own stories about their fields and their departments. Another option would be for the GSA to purchase, say, a page of "advertising" each month and write *and edit* our own copy (as the Women's Athletics department has done this last year).

We have had an excellent relationship with the University's Public Information Office this last year, and they have been very helpful to us in producing and distributing press

releases for us. I served on a student assessment board to help advise the PIO regarding student attitudes and our response to University advertising.

The GSA did attempt to use a clipping service, but dropped it quickly as the tremendous cost and the lack of effective coverage outside of the Albuquerque area became apparent.

Instructional Media Services began producing a magazine format television program this year for distribution on cable. I was interviewed, along with ASUNM President John Schoeppner and Faculty Senate President Pauline Turner for one program regarding the University and the Legislature.

Finally, this last month, I met personally with the editors of the Albuquerque *Journal* and the Albuquerque *Tribune* to introduce myself and the GSA to them. Mr. Gerald Crawford of the *Journal* was definitely more sympathetic to the University. Both were quite willing to take the time to listen to me, though. Additionally, I have sent a number of "letters to the editor" to both papers over the year regarding tuition, the state of the libraries, and the Legislature. Most were published. This month the *Journal* also published an "op-ed" piece written by me on behalf of the GSA.

The GSA has also attempted to work out an arrangement with KUNM-FM where graduate students would have the opportunity to produce programs about their work here at the University. Pending the reorganization of the station within the University, one possible outcome of these discussions is the creation of a graduate fellowship through the Department of Speech Communications to support graduate producers.

UNIVERSITY RELATIONS

With the transition to President Farer's administration, there has been a great deal of confusion about the ultimate organization of the University, especially as regards graduate students and the GSA. I am encouraged by the apparent move to raise the status of graduate work here at the University. The GSA has also been pushing for more assistance through student services from the administration, particularly in career placement, financial aid, academic advisement, and through the Dean of Students office.

MEMBERSHIP IN THE CHAMBER OF COMMERCE

One achievement of the GSA was our decision to join the Greater Albuquerque Chamber of Commerce. This decision arose out of a presentation by Mr. "Bud" Mulcock

regarding the position of the Chamber towards the University. The hope is that we will be able to provide the local business community a better perspective of our needs at the University by our participation.

LEGISLATIVE ACTIVITY

My first effort this year was to meet several of the legislators from Bernalillo and Valencia Counties in the summer and fall. The GSA followed up with a reception for local legislators including those from Sandoval County. We also invited several senior administrators, including President Farer.

Again this year we hired a lobbyist for the regular session. Manuel Romero, a graduate student from the Department of Political Science was the only student to apply for the job. Again, we concentrated on just a few issues: graduate fellowships for underrepresented groups, library funding, Title XX subsidies for graduate students needing child care, and capital outlays. We also provided limited support for the Associated Students of New Mexico initiative get a voting student member on the Boards of Regents of each of the four-year universities.

Because of our inexperience, and the general lack of support for additional funding for education-related programs, we got nowhere with these bills during the regular session.

For the first special session, we hired another student, Doris Rhodes, of the Anderson School of Management. Again, we failed to get any specific bills passed except for partial funding for the Johnson Gym remodeling. Unfortunately, the $2M appropriated may only be enough to replace the old plumbing in the locker rooms. However, we did increase our visibility both in the legislature and within the University lobbying effort. We will continue our efforts to lobby for graduate student interests before the new interim legislative committee on higher education.

On the issue of increasing tuition, because of the lack of support for the University, and graduate programs and financial aid in particular in the legislature, the GSA stood with ASUNM and ASNM in support of no more than a 5% increase. After discussions with President Farer, the Council moved to support him and an increase of up to 12% as an act of good faith. The Regents finally set the increase at the BEF-recommended level of approximately 9%.

The general obligation bond issue last fall passed by a pleasantly suprising large margin. However, we were still disappointed by the limited funds available to improve the libraries. Similarly, we were disappointed that the BEF failed to recommend a funding formula for the libraries this year.

COMMITTEES

Senate Graduate Committee - The Committee did release a departmental evaluation form for use by graduate students this year, and it has been used by a couple of departments.

Student Reconciliation Committee (formerly the Ombudsman Committee) - met twice more this year (and I was invited only to the last meeting) and a proposal for the position of "conciliator" was finalized. Again, there is some question as to whether such an individual will succeed in gaining the respect of both the students and faculty, without being identified too closely with either group. We will continue to press our concerns through the selection and oversight committee if one is formed.

Campus Planning Committee - Through the Parking Subcommittee, the GSA succeeded in getting GAs and TAs back on the Faculty/Staff priority list for parking permits. However, there may be little parking available anyway with the loss of space due to ongoing construction. Efforts were also made to regulate the riding of bicycles on walkways without conclusion.

Library Committee - Circulation policies were questioned again, especially regarding back issues of journals and renewals by telephone. The GSA did not take a formal position on these problems.

University Radio Committee - The ongoing reorganization of the University peripherally affected the management of KUNM - FM. The GSA did not achieve any improvement in the coverage of graduate activities by the station. We have been involved, however, in the review committee established under Vice President Alex Sanchez which was created to consider the firing of the Acting News Director by the Acting Station Manager. The review was expanded to cover the relationship of the station

to the University. I believe that the graduate students' interests will be protected in whatever recommendations the committee may make about both KUNM and KNME - TV.

Publications Board - The GSA Council approved the reorganization plan for the Board which would reduce our representation from two to one graduate student. Additional checks and balances are built into the new structure of the Board, and it has been approved by both the ASUNM and Faculty Senates.

FINANCES

The GSA had a small surplus again this year, largely due to unclaimed pro-rated departmental funds ("PB Funds"). Again, the largest debate was over the balance between the funds for GSA and funds returned to the departments. The Law students were especially aggrieved by the relative isolation of their students from the Main Campus and thus the GSA. We have also had ongoing problems with the poor quality of funding requests, and the lack of time for Finance committee members to adequately review all annual funding requests. This next year we will require that all annual funding requests be sponsored by members of the Council so that the Representatives will have more influence on the budget process than the final vote to place it on the ballot.

These past two years, Debbie Morris, the ASUNM/GSA accounting supervisor, has helped us tremendously. It is recommended that her office be computerized as soon as possible.

Student Research Allocations Committee (SRAC) successfully funded $30,321.85 in requests from students in 35 departments. By the end of the spring semester, however, our advertising efforts proved their worth, and the committee had to lower the limits on dollars offered and the number of times a student could request money this year.

Projects Committee (formerly Special Projects and Speakers Committee) - funded $12,640.63 in requests for student sponsored projects around the University. This included the purchase of more than 30 additional ballot boxes for the GSA. We also purchased furniture and appliances for a lounge to be established for the Medical students. The Projects Committee also paid for the lobbying expense and GSA's membership in the

Chamber of Commerce this year. Future years' funding for the membership is now built into the budget.

CONSTITUTION AND BY-LAWS

The GSA Council adopted both a new set of By-laws this Spring along with a statement of purpose for the Association.

The graduate students approved three constitutional amendments this spring; one removing the requirement that the Council follow only Robert's Rules of Order, the second changing the name of the Special Projects and Speakers Committee to the Projects Committee, and the third allowing the Finance Committee to review the accounts of funded organizations only as needed.

CHILD CARE CO-OP

The GSA continued to have problems with the finances of the Co-op. We supported the work done by Moira Hernandez to reorganize the financial information system of the co-op but the director and his staff failed to follow through with staff support for implementation.

The Vice President for Student Affairs established an eight-member Advisory Board with one graduate student representative to help find some resolution to the ongoing problems of the Co-op, and the GSA and ASUNM have pressed the administration for additional financial support for the co-op from mandatory student fees. President Farer responded by placing some money in escrow for the Co-op pending the report by the Vice President's ad hoc review committee on the Co-op.

TEACHING ASSISTANT RESOURCE CENTER (TARC)

The Center continues to be a great success with the students who can get into the program. The GSA is dissappointed by the lack of priority of this program in the University, and we will continue to press for greater funding and recognition for the Center this next year. We have also argued that there should be a comparable program of continuing education for faculty.

GRADUATE STUDENT ASSOCIATION

1985-86 Budget

Estimated 1984-85 surplus $4,000 from GSA Contingency $6,000 from GSA General Surplus Funds (not budgeted)	$10,000.00
Total GSA income 1983-84 (accountant fee deducted) Fall semester (1984) fees: $61,275.00 Spring semester (1985) fees: figures n/a	121,524.00
Estimated GSA revenue 1985-86	128,100.00
Cost of Accountant (5% of revenue)	6,100.00
GSA Portion of Student Accounts Audit	400.00
Available revenue 1985-86 (minus cost of sub use and audit)	121,600.00
Available funds for allocation (Revenue plus $5,000.00 from 1984-85 surplus)	126,600.00

Indirect Services

1) GSA Staff Assistant	$11,106.00
2) GSA Work Study	500.00
3) GSA Office Operations	11,602.00
4) President's Education Grant 12 mos. x 460/mo (assuming 6% increase for GA/TA salaries)	5,520.00
5) President's Contingency Fund	600.00
6) Chairperson's Contingency Fund	400.00
TOTAL INDIRECT SERVICES	$29,728.00

Direct Services

1) SRAC		27,500.00
2) SPSC		8,000.00
3) PB Funds		22,800.00
	TOTAL DIRECT SERVICES	$58,300.00
	TOTAL INDIRECT AND DIRECT	$88,028.00
	TOTAL EXTERNAL BUDGET	$35,691.00
	GRAND TOTAL	$123,719.00

ANNUAL REPORT

of the

LATIN AMERICAN INSTITUTE

1 July 1981 - 30 June 1982

Gilbert W Merkx, Director

Significant Developments

The Latin American Institute (LAI) was refunded (with New Mexico State University, its consortium partner) at a level of $132,964 for 1981-82 by the Office of International Education (OIE), US Department of Education, as a National Resource Center for Latin American Language and Area Studies. Also included in the award are monies for graduate student fellowships.

Upon recommendation of the LAI Policy Committee, the appointment of Gilbert W Merkx as executive director was extended without term.

Effective 1 July 1982, Mr Merkx and Theo R Crevenna, associate director for administration, will have the titles of director and deputy director respectively. These title changes will be made to facilitate representation of the LAI by Mr Merkx and Mr Crevenna before funding agencies.

The Office of International Education (OIE), US Department of Education, funded the LAI for a two-year project, "Colonialism and Its Legacy:

Undergraduate International Studies and Foreign Language Program." The $70,000 grant is being used in an unusual attempt to forge interdisciplinary cooperation among foreign language and area specialists for the purpose of a common teaching effort, and has attracted considerable attention from other institutions.

The theme of colonialism and its legacy was selected because of the importance of colonialism in shaping the modern world, its relevance to a variety of academic disciplines as a process that shaped the European powers as well as the colonized regions, and because it offers a natural incentive for the learning of the languages of the major colonial powers, including Spanish, Portuguese, French, German, and Russian.

Two courses were taught in the history department during the spring 1982 semester. They include Overseas Empire: Colonialism in the Making of the Modern World, and The Legacy of Colonialism in the Contemporary World. The LAI plans to sponsor lecturers from other departments and institutions. The visiting speakers will also be invited to give public lectures.

Following the success of Spanish and Portuguese tutorials for faculty and staff and requests for specialized language training from community businessmen and other professionals, the LAI, in cooperation with the Department of Modern and Classical Languages, developed a language outreach program. First offered in the spring 1982 semester, the courses were publicized through local newspapers, radio and television stations. They included

Spanish for Lawyers,

Spanish for Medical Personnel,

Spanish for Business,

Spanish for Law Enforcement Personnel,

Spanish for Commercial Correspondence,

Spanish for Public Administrators, and

Portuguese for Business.

Response to the language outreach program can accurately be described as overwhelming. It is evident that a considerable demand exists in the professional community for specialized instruction in the two major languages of Latin America.

Faculty and staff tutorials consist of small groups, stratified according to the abilities of the participants, taught by native speakers. Four of these tutorials are offered each semester and have been completely filled. One benefit of the tutorial program is that it serves as a vehicle for the internal recruitment of faculty into the Latin American studies programs.

The LAI assisted the Maxwell Museum of Anthropology in preparing three exhibits with a Latin American focus: Juan Quezada and Casas Grande Pottery; Yer Daileghe, Kuna Women's Art; and Fiestas de San Juan Nuevo: Ceremonial Art from Michoacan, Mexico. Each exhibition provided the opportunity for substantial exchanges with Latin America, for the sharing of local and Latin American artistic traditions, and for community education.

The San Juan Nuevo exhibit was used as the centerpiece of a UNM-NMSU Latin American High School Day, 15 March, when some fifty students from Albuquerque and Las Cruces high schools visited the museum for a day of presentations and tours. The Kuna exhibit, featuring Panamanian molas, traveled to the Lowie Museum at the University of California-Berkeley, and to museums at the University of California-Los Angeles (UCLA), Western New Mexico University (WNMU), and New Mexico State University (NMSU).

The success of these cooperative ventures has led to agreements under which the LAI will undertake national distribution of exhibitions mounted by the Maxwell museum and by the UNM Art Museum to other Latin American language and area studies centers.

The LAI obtained a $45,000 grant from the Office of International Education (OIE) in the US Department of Education for a pioneering group research project on Ecuadorean rural development under the Group Projects Abroad provisions of the Fulbright-Hayes act. This project, which is understood to be the first funded under the group project provisions of the act, allowed a team of seven persons to go to Ecuador during summer 1982. Representing anthropology, geography, history, medicine, political science, and public administration, the team met with Ecuadorean officials for a series of joint seminars both before and following field research studies on the impact of Ecuadorean rural development programs. Ecuadorean officials were enthusiastic about the project; possible publication of findings both in Ecuador and in the United States is being explored.

Another project, the Teacher-Fellow Program in International Understanding: Latin America, also was funded for $45,000 by the OIE under its International Understanding Program. With strong support from the New Mexico Board of Education, applications were invited from school teachers at all levels, with the approval of administrators, in twenty-three public school districts in northern and central New Mexico, the parochial schools of the Archdiocese of New Mexico and private schools. Each teacher was invited to submit a curriculum development project focused on Latin America, and to specify six hours of graduate courses in Latin American language and area studies in which they would enroll.

Sixty-three teacher-fellows were selected during fall 1981 for the spring and summer 1982 semesters. The program was successful: at the end of the summer, at their own initiative, the teacher-fellows from both semesters requested and participated in a special conference at their own expense, in which the curricula projects were shared. All levels K-12 were represented. The teacher-fellows formed their own association, and plan a second conference at the end of 1982 in which results of using the curricula in the classroom will be discussed.

The LAI Standing Evaluation Subcommittee circulated a questionnaire to all members of the faculty concilium near the end of the 1981-82 academic year. Numerical summaries and a composite of open-ended responses were compiled by the subcommittee, composed of four faculty and one graduate student. A summary report was distributed to all faculty concilium members; a copy is included in the appendix. The second stage of the evaluation process will be in December 1982, with

visits to UNM (and to NMSU, since the two institutions are considered as a single federal Title VI resource center for language and area studies) by a two outside experts: Michael C Meyer, director of the Center for Latin American Studies, University of Arizona; and Riordan Roett, director of the Latin American Program of the School of Advanced International Studies, Johns Hopkins University.

Since 1979, the LAI and the Center for Latin American Studies (CLAS) at New Mexico State University (NMSU) have maintained cooperative relationships through the New Mexico Consortium for Latin American Studies. Each year an annual meeting is sponsored through the consortium to encourage Latin Americanists at the two universities to discuss current projects and topics of mutual interest.

The fourth annual meeting of the consortium was 4-5 December at UNM. Presentations included a panel discussion at the Maxwell Museum of Anthropology on the exhibit Fiestas de San Juan Nuevo. The exhibit also was the subject of a second panel on The Museum and the Community. The consortium dinner was at the museum, and featured Luis Gonzalez y Gonzalez of the Colegio de Michoacan as keynote speaker. Gonzalez is considered to be the dean of Mexican historians. John Johnson, editor of the Hispanic American Historical Review (HAHR), currently housed at UNM, was the featured speaker at a luncheon meeting. In addition, Latin Americanists from the two universities participated in a panel discussion at the LAI on the future of Central America.

Each summer the LAI and CLAS cosponsor a two-day teacher symposium workshop on the teaching of Latin American studies in the schools. The 1982 symposium was 29-31 July at NMSU, with some forty participants from throughout the state. Faculty from both sponsoring institutions made presentations on Latin American geography, Mexican-United States relations, Latin American literature, the Falklands crisis, current events in Central America, and popular culture.

For the third consecutive summer, the LAI sponsored a graduate-level course on the teaching of Latin American studies, with funding provided from its Title VI grant. Sixteen teachers participated in the course during summer 1982. Taught by Guillermina Engelbrecht of the Department of Elementary Education, the course featured guest lectures by Latin Americanist faculty who contributed a variety of disciplinary perspectives to the course.

Significant Plans and Recommendations for the Near Future

LAI staff members were recently approached by Meyer Bass, a retired Jewish social worker and historian living in Albuquerque, with a proposal to develop a conference on the Jewish experience in Latin America. Mr Bass has communicated with a variety of Jewish scholars in the United States, Latin America, and Israel, and has had good response. He believes that sufficient funding can be obtained. It is expected that a few distinguished scholars will contribute papers, focusing on an academic rather than a political approach to the theme, and that these papers could be published (with a small subsidy) by the UNM Press.

LAI staff members also have been in communication with David Warren of the Institute of American Indian Art (IAIA). Mr Warren also serves as the United States representative to the Inter-American Indian Institute. A proposal is being developed which would allow Mr Warren to work directly with the LAI to develop an Inter-American Indian Center. The proposed center would primarily operate as a clearinghouse, performing technical analyses of legislation affecting the Native American population. One of its early functions would be to assist in preparations for the IX Inter-American Indian Congress, to be held in Santa Fe in 1985.

LAI staff members were pleased to learn that the National Endowment for the Humanities (NEH) approved their proposal for a summer institute on Brazil, to be in Taos during summer 1983. Funded at $105,000, the summer institute is expected to have a major impact on the teaching of Brazilian studies throughout the nation. LAI project assistants have begun preparation for the summer institute under the direction of Jon Tolman, LAI associate director for academic programs, and associate professor (Portuguese) in the Department of Modern & Classical Languages.

It was disappointing to learn that the base budget authorization for the LAI dropped for the 1982-83 fiscal year to $121,000 from the base budget of $130,000 for 1981-82. The new budget amounts to a 6 percent reduction, in contrast with a 19 percent increase requested. It seems likely that the reduction reflects university-wide budget constraints resulting from the loss in permanent fund income. The LAI staff remain

hopeful that an increase can be negotiated. Fortunately, those budgets that support UNM exchanges with the Universidad Nacional Autonoma de Mexico (UNAM) and with the Instituto Tecnologico de Chihuahua are continued in the proposed budget at the same level as for 1980-81, the level recommended by the steering/coordinating committees for each of these programs.

In a report to the library subcommittee of the LAI policy committee during the fall 1981 semester, Dean Paul Vassallo presented data that revealed a general decline in Latin American acquisitions relative to total acquisitions during the past six years. An effort was immediately undertaken by LAI in cooperation with library administrators to rectify the situation, including, at Dean Vassallo's request, the establishment of priorities to guide the library acquisitions program.

The library subcommittee voted to spend a portion of the LAI Title VI national resource center grant for the purchase of a virtually complete run of the Colombian literary and cultural magazine Cromos, and for a ten-year (1963-72), 240-reel backfile of the Brazilian daily newspaper, O Estado de Sao Paulo. Other library purchases during 1981-82 from Title VI funds include subscriptions to Central American Report (Guatemala) and to Latin America: Regional Report (London). Copies of recent doctoral dissertations also will be purchased from the publisher (University Microfilms, Inc).

Appointments to and Separations from Staff

Continuity continues to characterize the LAI staff. Mr Merkx, Mr Crevenna, and Dick Gerdes remained in their respective positions as

executive director, associate director for administration, and associate director for academic programs. Marilee Schmit served as as an LAI program officer for 1981-82, taking responsibility for museum outreach activities, proposal preparation, and project implementation. Carol Robles was the second LAI program officer, taking charge of Spanish and Portuguese tutorials for UNM faculty and staff, and of the Spanish and Portuguese for Professionals outreach program.

Project assistants included Curtis F Lee, M Karen Bracken, David Lauer, and Audon Trujillo, who also was the Peace Corps liaison officer. The LAI secretarial staff included Teresa Harper-Rodriguez, department secretary, and Joan Swanson and Vickie Madrid Nelson, staff secretaries. Working as secretarial assistants were Paula Torres, Isaura Andaluz, Don Contreras, Marie Hernandez, and Martha Lee.

Sharon S Kellum, who will be managing editor of the Latin American Research Review, is also editing and overseeing production of the LAI Notes and the LAI Bulletin. These publications were among the responsibilities of Program Specialist Nick D Mills, who has resigned to move to Ecuador, where he will be a consultant, and, under the auspices of the Organization of American States (OAS), will work with Ecuadorean authorities as an assistant in the Biblioteca Ecuatoriana project.

Publications

The LAI publications program became even more visible and valuable to the national and international Latin Americanist community during 1981-82, with the arrival at UNM of the Latin American Research Review

(LARR), and with the second year of publication on campus of the Hispanic American Historical Review (HAHR). The campus-wide distribution of the monthly LAI Notes continued to be an effective innovation for keeping the local Latin Americanist community informed of events and opportunities.

The LAI Bulletin and the LAI Research Paper Series attracted considerable national and international attention as well. The LAI publications subcommittee expected to publish only four papers during 1981-82, but there were many high-quality submissions. As a result, the interests of scholarship mandated the publication of eight papers:

DIEZ-CANEDO, Juan. "Undocumented Migration to the United States: A New Perspective"

EARLEY, Stephen. "Arms and Politics in Costa Rica and Nicaragua, 1948-1981

GREGORY, Peter. "Economic Development and the Labor Market in Mexico"
"Employment, Unemployment, and Underdevelopment in Latin America"
"Legal Minimum Wages as an Instrument of Social Policy in Less Developed Countries, with Special Reference to Costa Rica"

LEVY, James and Nick Mills, Jr. "The Challenge to Democratic Reformism in Ecuador

SABLOFF, Paula L W. "Caciquismo in Post-Revolutionary Mexican Ejido-Grant Communities"

WESSMAN, James W. "Peasants, Capitalists, and the State: Mexico's Changing Agricultural Policies and the 'Hungarian Project'"

Outside Professional Activities of Staff Members

Mr Merkx and Mr Crevenna traveled to Washington, DC, during the week of 16 November to participate in the annual Title VI national resource centers directors meetings. While there they met with the New Mexico State University (NMSU) director and those from the University of Texas (UT) and the University of California-Los Angeles (UCLA), to discuss projects and programs of mutual interest.

Agencies visited by Mr Merkx and Mr Crevenna included the National Endowment for the Humanities (NEH) and the International Communications Agency (ICA). They also had meetings with New Mexico senators Pete Domenici and Harrison Schmit, and with Boyden Grey, assistant to Vice President George Bush.

Outside-sponsored Research

An area of continuing success for the LAI during the 1981-82 academic year has been the ability of its staff to obtain outside funding for new projects and to increase the amount of funding received for work already in progess.

The Summer Institute on Brazil to be in Taos in 1983 has already been mentioned in the "Significant Plans and Recommendations for the Near Future" section. Here it will be added that it is expected to have national impact through the professional Brazilian sociocultural and Portuguese language competence it will spread to college and university faculty throughout the nation. It will, then, help to meet the increasing national need for more competent understanding of and interactions with Brazilians at all levels. The scope of the training needed and the numbers of professionals who need to be trained dictate that the 1983 summer institute be only the first in a series of programs on Luso-Brazilian studies for which funding will be sought.

The National Endowment for the Humanities (NEH) also approved funding at $47,000 for a two-year library project involving the cooperation of the LAI and Zimmerman Library. The project consists of preparing a library guide to UNM holdings on Mexico. Another library project of great value to the university community, funded by the UNM Foundation, is the compilation of a bibliography from all available sources on Latin American labor. When completed, the bibliography will be compared to UNM's library holdings. Funded at $18,000, the project has been supervised by Mr Mills, in cooperation with Russ Davidson, UNM assistant professor of librarianship, and in consultation with faculty doing research on Latin American labor.

The Summer Field Research Grant program was renewed, again for $15,000, by the Tinker Foundation. Each of these grants was matched by $5,000 from UNM, and administered by the LAI. Three junior faculty and

thirteen graduate students received awards. These represented research projects in ten academic fields and were carried out in seven Latin American countries. All recipients completed their research.

The Tinker Foundation also was the source of a $15,000 translation fund to be awarded over a three-year period at $5,000/year. This funding, which is to be invested, will serve the needs both of the Latin American Historical Review and of the Hispanic American Historical Review for the five-year periods of their tenures at UNM.

A series of four lectures on human rights during the fall 1983 semester was funded for $2,500 by the Sperry-Hutchinson Foundation Lectureship Fund. The series will present four approaches to the question of human rights in Latin America as they relate to United States policies, with speakers from Amnesty International, the Inter-American Commission on Human Rights of the Organization of American States (OAS), and the Carter and Reagan administrations.

Peace Corps activity at UNM for 1981-82 was approved at a level about 13 percent higher than for 1980-81. The LAI houses the Peace Corps offices and administers its budget. It should be noted that the Peace Corps office here serves the Albuquerque community and the surrounding region of the state as well. The office here has consistently been one of the Peace Corps' top recruiting stations.

Other Activities

Extracurricular programs and activities reached a new level of vitality, through LAI sponsorship of more than forty speakers, colloquia, and

special events throughout the year. These are listed in the appendix.

A major conference, "Orientation of American Indians to Private and Public Agency Resources in International Program Activities," sponsored by the United States Information Agency (USIA) and funded at $15,000, brought to the UNM campus Indian leaders and officers of funding agencies for discussion of opportunities in fields relating to Indian issues in the Americas. The conference was organized in cooperation with the Institute of American Indian Arts, Santa Fe.

The LAI proposal to host the 1985 meetings of the Latin American Studies Association was successful over bids from other campuses.

Two new dual-degree programs linking Latin American language and area studies with professional schools have been approved by the faculty of both schools and by the College of Arts and Sciences. Approval by the faculty senate is expected by December 1982. Several students already are awaiting admission into these new programs:

MA in Latin American Studies/MS in Nursing

MA in Latin American Studies/Master of Community and Regional Planning (MCRP)

This brings the total number of Latin American degree programs at UNM to twenty-seven.

Each year the LAI sponsors several days of activities related to a single country or region of Latin America. The 1981-82 focus (27-30 April) was on the Caribbean. It included panel discussions on the

economic, political, and social aspects of the impact of the United States-Caribbean Basin Development Plan, as well as Caribbean area social issues such as the status of women, migration, and refugee problems. Current literary trends in the Caribbean also received attention. The events were cosponsored with the Student Organization for Latin American Studies (SOLAS).

APPENDIX

LAI-sponsored Speakers and Events, Evaluation Subcommittee Report

LATIN AMERICAN INSTITUTE

Calendar of Events

Fall Semester 1981

Month Day	Name of speaker, speaker's title or affiliation, "title of speech/event"	Location/Series
September 1981 7	Lecture by Leopoldo Zea. UNAM "El Sentido de la Historia Latinoamericana."	Latin American Ins (LAI)
8	Lecture by Leopoldo Zea. UNAM "Estudios Latinoamericanos en la Universidad Nacional Autónoma de México."	LAI
18	Open House for LAS and SOLAS.	LAI
October 1981 2	Lecture by Erlinda Gonzales-Berry, Assistant Professor, Modern and Classical Languages, UNM, "The Chicano-Mexican Disconnection: Mexican Views of Chicanos."	Luncheon Lecture Series (LLS) LAI
9	Discussion was with Senator Jack Schmitt, "Discussion of Educational and Latin American Issues."	LAI
15	Lecture by Michael Conniff, Associate Professor, History, UNM, "Black Panamanians: The Panama Canal and the West Indian Legacy."	LLS at LAI
30	Lecture by Angela Delli Sante, Visiting Professor, UNAM, "Peru's Military Revolution: 1968-75."	LLS at LAI
November 1981 4	Lecture by Joe Brawley, M.A., Architecture, "Two Squatter Settlements in Nicaragua: Matagalpa and Jinotega."	Afternoon Colloqui (AC)
11	Illustrated presentations and discussions by several former Peace Corps Volunteers.	LAI
12	Lecture by June Carter, Assistant Professor, Modern and Classical Languages, UNM, "Literary Blackness in Costa Rica: The Works of Quince Duncan."	LLS at LAI

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Calendar of Events

(Continued)

November 1981 18	Lecture by James Wessman, Visiting Assistant Professor, Anthropology, "Peasants, Capitalists and the State: Mexico's Changing Agricultural Policies."	LLS at LAI
25	Film: "Paisaje de Costa Rica.	LAI
30	Lecture by Dra. Carmen Castañeda, Directora, Archivo General de Jalisco, "La educación en el México Colonial."	LAI
December 1981 1	Lecture by Dra. Carmen Casteñeda, Directora, Archivo General de Jalisco, "Research Opportunities in the Archivo de Jalisco."	LAI
2	Lecture by Peter Praxmarer, "Cultural Dimension of Social Change."	LAI
4	Annual Meeting of the New Mexico Consortium on Latin American Studies (The University of New Mexico and New Mexico State University. Luncheon Speaker: Dr. John J. Johnson, Editor, Hispanic American Historical Review, "Confessions of a Journal Editor."	Student Union Bldg. (SUB)
	"Fiestas of San Juan Nuevo: Ceremonial Art from Michoacán, Mexico. Panel Discussion: "Popular Art and Folklore." Panel Discussion: "The Museum and the Community."	Maxwell Museum
	Consortium Dinner, Speaker: Luis González y González, Mexican Historian and Director of the Colegio de Michoacán.	Maxwell Museum
5	Panel Discussion: "What is the Future of Central America?" Moderator: Louis Sadler (NMSU). Participants were NMSU and UNM professors.	LAI

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Calendar of Events

Spring Semester 1982

February 1982 8	Lecture by Rosa Elena Montes de Oca Luján distinguished Mexican economist, professor at UNAM, and National Director of the Sistema Alimentario Mexicano. Talk was in English on "The Rural Sector and the Crisis in the Mexican Economy."	Ortega Hall Reading Room
9	Brown bag luncheon, informal talk in English by Rosa Elena Montes de Oca Luján on "Mexican Rural Policy and the Sistema Alimentario Mexicano."	LAI
11	Lecture by Argentine poet and former UNM graduate student Héctor Cincotta, co-sponsored by Modern and Classical Languages, "Personal Literary Experiences."	Ortega Hall Reading Room
12	SOLAS Meeting.	LAI
	Policy Committee Meeting.	LAI
16	Advisory Board Meeting, Southwest Hispanic Research Institute.	LAI
17	Lecture by John M. Fein, Visiting Scholar LAI and distinguished professor, Department of Romance Languages, Duke University, "La Ciudad y los perros: Heroes and non-heroes." Co-sponsored by Modern and Classical Languages.	LAI
	Lecture by Janet Brody Esser, San Diego State University, "Tarascan Masks of the Blackman: Myths and History." Illustrated.	Maxwell Museum of Anthropology
19	SOLAS Meeting.	LAI
22	ICLAS Meeting.	LAI
23	Lecture by John M. Fein, Visiting Scholar LAI, and distinguished professor, Department of Romance Languages, Duke University, "Coronación: The Existentialist Dilemma." Co-sponsored by Modern and Classical Languages.	Ortega Hall Reading Room

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Calendar of Events

(Continued)

February 1982		
24	Ecuadorean Films: "El Origen del Hombre Ecuatoriano." Produced by The Centro de Cultura e Investigación, Banco Central del Ecuador. Presentation by Marilee Schmit.	LAI
26	SOLAS Meeting.	LAI
	Panel discussion by Tinker Research Grant Fellows David Lauer, Marie Mound, and Linde L. Hidalgo, "Literature in Mexico, Ecuador, and Panama." Co-sponsored by SOLAS.	LAI
March 1982		
1	Exhibit of Contemporary Modern Mexican Architecture, sponsored jointly with the School of Architecture and Planning (through March 13, 1982).	School of Architecture and Planning
1	Lecture by Robert Moreno de los Arcos, Director, Instituto de Investigaciones Históricas, UNAM, in Spanish, "México y el Siglo XVIII."	LAI
2	Ecuadorean Films: "Nuestra Primera Historia," produced by the Centro de Cultura e Investigación, Banco Central del Ecuador. Presentation by Marilee Schmit.	LAI
3	Presentation by Patrick McNamara, Associate Professor, Sociology, UNM, recent exchange professor at UNAM/ACATLAN.	LAI
	Lecture by John M. Fein, Visiting Scholar LAI, and professor, Department of Romance Languages, Duke University, "Introductory to the Poetry of Octavio Paz." Co-sponsored by Modern and Classical Languages.	LAI
5	SOLAS Meeting.	LAI
	Lecture by Stanley Hordes, State Historian on Tinker Summer Research, "The Crypto - Jewish Community of New Spain 1620-1649: A Collective Biography."	LAI

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Calendar of Events

(Continued)

March 1982		
5	Presentation by Tinker Summer Research Grant Fellow, Marilee Schmit, "Slide presentation on Ecuadorean culture and embroidery." Co-sponsored by SOLAS.	LAI
6	Pro-Seminar I, Teacher Fellows, Guillermina Engelbrecht and LAI Staff.	LAI
8	Presentation by Tinker Summer Research Grant Fellows on Rural Issues, co-sponsored by SOLAS: Mary Jane Mason, "Bolivian Peasant Participation." Angelina Casillas, "Female Agricultural Workers in Michoacán." Robin Walker, "Agricultural Reform in Nicaragua." Karen Bracken and Gary Lemons "Families of Migrant Workers from Northern Mexico."	LAI
9	Policy Advisory Board Meeting, Southwest Hispanic Research Institute.	LAI
9	Lecture by Guy Pefferman, Economist, World Bank, jointly sponsored with the Department of Economics, "Latin America and The Caribbean: Economic Performance, Policies and Prospects."	Ortega Hall Reading Room
10	Lecture by George Black, British author and expert observer of the Latin American scene, "The Sandinista Revolution in Nicaragua."	Kiva Auditorium
11	Brown bag lunch informal talk by George Black on Central American issues.	LAI
12	SOLAS Meeting.	LAI
	Policy Committee Meeting, Latin American Institute.	LAI
15	Latin American Conference Day Convention for High School Students. Welcomed by Gilbert Merkx, Director, LAI. Tour of "Fiestas de San Juan Nuevo," by Mari Lyn Salvador, Chief Curator.	Maxwell Museum

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Calendar of Events

(Continued)

March 1982 16	Lecture by John Gavin, U.S. Ambassador to Mexico, "Current Relations Between U.S. and Mexico."	Fine Arts Center
17	Lecture by Marian Rodee, Curator of Collections, Maxwell Museum, "Backstrap Weavers of the New World."	Maxwell Museum
22	Presentation by Patrick McNamara, exchange professor at UNAM/ACATLAN, "Experiences of UNM's First Exchange Professor at the UNAM."	LAI
24	Ecuadorean Films: "Quito Patrimonio de la Humanidad," produced by the Centro de Cultura e Investigación, Banco Central del Ecuador. Presentation by Marilee Schmit.	LAI
24	Lecture by David McCullough and Mari-Luci Jaramillo, College of Education, UNM, "An American Ingénue in Central America."	Woodward Hall
25	SOLAS Meeting.	LAI
26	Presentation by Robert Hard, Tinker Summer Research Grant Fellow, co-sponsored by SOLAS, "Traditional Technology of the Tarahumara."	LAI
27	Pro-Seminar II, Teacher-Fellows, LAI Staff, and Guillermina Engelbrecht.	LAI
30	Lecture by Fernando Robles, International Management, UNM, Tinker Summer Research Grant Fellow, "Perceived Export Risk and Profitability among Peruvian Lumber Exporters." Co-sponsored by SOLAS.	LAI
31	Lecture by Anita Alvarado, Anthropology, UNM, "Holy Week: The Opata Indians of Northwestern Mexico." Illustrated.	Maxwell Museum of Anthropology
31	Presentation by Chico da Acosta "Titico", a Brazilian guitarist, "Poesia e Samba," a Guitar Recital.	Woodward Hall

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Calendar of Events

(Continued)

April 1982		
2	SOLAS Meeting.	LAI
	Lecture by Russ Davidson, Library, UNM, Tinker Summer Research Grant Fellow, sponsored by SOLAS.	LAI
5	Ecuadorean Films: "Ñucanchic," produced by the Centro de Cultura e Investigación, Banco Central del Ecuador. Presentation by Marilee Schmit.	LAI
7	Lecture by John M. Fein, Visiting Scholar LAI, and distinguished professor, Department of Romance Languages, Duke University, "Octavio Paz: Himno Entre Ruinas."	LAI
	Lecture by Anita Alvarado, Anthropology, UNM, "Holy Week: Colonial and Modern Spain." Illustrated.	Maxwell Museum of Anthropology
9	SOLAS Meeting.	LAI
9	Policy Committee Meeting, Latin American Institute.	LAI
12	Tinker Selection Committee Meeting.	LAI
13	Policy Advisory Board Meeting, Southwest Hispanic Research Institute.	LAI
14	Lecture by Roberto Regalado, Cuban Interest Section, Washington, D.C., "Cuba Today."	LAI
15	Lecture by John M. Fein, Visiting Scholar LAI, distinguished professor, Department of Romance Languages, Duke University, "Octavio Paz: Piedra del Sol." Jointly with Modern and Classical Languages.	Ortega Hall Reading Room
15	SOLAS Meeting.	LAI
16	Policy Committee Meeting, Latin American Institute.	LAI
19	Ecuadorian Films: "Galápagos," produced by the Centro de Cultura e Investigación, Banco Central del Ecuador. Presentation by Marilee Schmit.	LAI

LATIN AMERICAN INSTITUTE

Calendar of Events

(Continued)

April 1982		
20	Lecture by Peter Evans, Visiting Professor of Sociology and Brazilian Expert, "Contradictions of Dependent Development: Current Sources of Economic and Political Tension in Brazil."	LAI
21	Lecture by John M. Fein, Visiting Scholar, LAI, distinguished professor, Department of Romance Languages, Duke University, "Octavio Paz: Piedra del Sol." Jointly with Modern and Classical Languages.	LAI
22	Lecture by Simon Collier, British Historian, "The Conservative Period of Chilean History, 1820-1850."	History Reading Room, Mesa Vista
22	Lecture by Simon Collier, British Historian, "The Liberal Period of Chilean History, 1850-1910."	LAI
23	SOLAS Meeting.	LAI
23	Lecture by Simon Collier, British Historian, "The Tangos of Carlos Gardel." Talk with music and slides.	LAI
26	Selection Committee Meeting - Ecuador.	LAI
27 - 30	CARIBBEAN WEEK PROGRAM:	
	27th: Lecture by Dr. Robert P. Brenner, Department of History, University of California, Los Angeles, "Economic Decline and Imperialism."	LAI
	28th: Panel Discussion: "Uneasy Neighbors: The Caribbean Nations." Moderator: Dr. Patrick Bryan, History, University of the West Indies and Fulbright Professor, History, UNM.	LAI
	Roundtable Discussion: "Understanding Caribbean Music." Moderator: Héctor García, Music Department, UNM.	LAI
	29th: Panel Discussion: "Common Features of Caribbean Economy and Society." Moderator: Dr. James Wessman, Anthropology, UNM.	LAI

LATIN AMERICAN INSTITUTE

Calendar of Events

(Continued)

April 1982 27-30	CARIBBEAN WEEK PROGRAM: 29th: Lecture by Dr. J. Michael Dash, Department of French, University of the West Indies, Jamaica, "Protest and Beyond: Link Between Francophone and Anglophone Caribbean."	Ortega Hall Reading Room
	30th: Panel Discussion: "Current Caribbean Issues." Moderator: Dr. Marshall Nason, Spanish, UNM.	Woodward Hall
	Dr. William McGreevey, International Bank for Reconstruction and Development: "The Economic Issues."	Woodward Hall
	30th: Plenary Session: Speaker, Mr. Bennett Marsch, Office of the Special Representative for Trade Negotiations, "The Caribbean Basin Initiative."	Woodward Hall
27	Lecture by John M. Fein, Visiting Scholar, LAI, distinguished professor, Department of Romance Languages, Duke University, "Orozco's Dartmouth Murals." Jointly with Modern and Classical Languages.	Ortega Hall Reading Room
May 1982 1	Coordination Meeting, Ecuador Team	LAI
1	Standing Evaluation of LAI	LAI
15	Teacher-Fellow Workshop, Guillermina Engelbrecht and LAI Staff.	LAI

THE UNIVERSITY OF NEW MEXICO
ALBUQUERQUE, NEW MEXICO 87131

To: Members of the Faculty Concilium on Latin America Date: June 10, 1982

From: Standing Evaluation Subcommittee (Jeff Evans, Profs. Holzapfel, Grothey, Nason, and Schwerin)

Subject: Summary of findings from 1982 evaluation of Latin American Institute

The following information summarizes the numerical responses to the questions about different components of the Latin American effort at UNM, and presents extensive excerpts from the answers to the three general questions that were asked of the Faculty Concilium. Eighty-two questionnaires were returned, ten of these were returned blank and the tabulations are based on the remaining seventy-two. (Note: The mean rating is based on the number of responses carrying numerical value; the DK response does not carry a numerical value and thus the number of responses for each question varies.) The wording of the questions about different components of the program was much the same for each component: "How would you evaluate the contribution of (unit) to the overall Latin American program at UNM?" Numerical ratings were on a 6-point scale as follows:

Very Poor	Poor	Fair	Good	Very Good	Excellent	Don't Know
1	2	3	4	5	6	DK

SUMMARY OF NUMERICAL ANSWERS

	Unit	No. of Responses	Modal Rating	Mean Rating
1.	Central Office of LAI	63	5	4.9
1a.	Director of LAI	62	5	5.2
1b.	Assoc. Director for Academic Prog.	50	5	4.5
1c.	Assoc. Director for Adminis.	49	6	5.2
1d.	Office Staff of LAI	48	DK	4.6
2.	Policy Committee of LAI	58	5	4.5
3.	Faculty Concilium of LAI	56	4	3.4
4.	National reputation of LAI	58	5	4.9

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Unit	No. of Responses	Modal Rating	Mean Rating
5. Ability to obtain grant funding from public and private sources	59	5	4.6
6. Latin American program compared to other major programs at UNM	64	5	5.0
7. BA program in Latin American Studies	33	DK	4.3
8. MA program in Latin American Studies	40	DK	4.6
9. PhD program in Ibero-American Studies	36	DK	4.4
10. Dual degree programs MALAS/MBA, MALAS/MPA	29	DK	4.4
11. Physical facilities of LAI	60	4	4.7
12. Provision of over-seas study in Latin America and Spain	52	5	4.4
13. LAI's information services	68	5	5.1
14. LAI's outreach programs	55	5	4.9
15. LAI's lectures and public events series	69	5	4.8
16. Library purchases of materials for the past two years	51	DK	3.8
17. Adequacy of overall library holdings	58	4	3.9
18. Support of LA programs provided by UNM central administration	58	4	4.2
19. Support provided by LAI for research by faculty and graduate students	60	5	4.8
20. Support provided by LAI for faculty travel	51	DK	4.3
21. Development and functioning of LAI during the past two years	67	5	4.9

I. What things have impressed you as especially healthy or positive among the various Latin American activities at UNM?

the very existence of an active LA program
strong personalities of LAI staff - persuasive, able, very approachable
high faculty morale and interaction
based on only indirect contact, the LA program appears to be strong
variety and support of LA related activities in different fields
tremendous number of activities
continuing library purchases
visiting and other lecturers
information dissemination
the cross-department interactions; communication
improvement of communication among the LA community
support given by UNM administration
security of outside money for various programs
propaganda and public relations success
impact in Washington; success in fundraising; general morale of faculty and students in LA program
engineering exchanges with Chihuahua
steady growth and development
contacts with authorities and foundations in Washington
good relations with administration
entire program is most impressive - support for research, publication series, travel support, climate of scholarly excellence
coordination by LAI developing very nicely
strong in most areas - training, cultural activities, training programs, etc.
good administration
variety
tendency to be co-sponsored with other departments, institutes
broad involvement of faculty and students
high exposure to constituents
quality multi-faceted programs
wide scope of activities
attempts to serve various interests in a balanced fashion
variety of fields included
public lectures, panels, travel for grad students and faculty
outstanding, active, professional administration
outreach programs are good - Tinker grants are excellent opportunities
exhibit of Michoacán folk art outstanding
summer 1982 Ecuador research project
positive attitude of virtually all the LAI staff
SOLAS students show commendable interest and energy in promoting events related to Latin America
genuine attempt to give priority to LA issues in general
motivation and willingness to do a good job
strong emphasis on exchange information; emphasis upon graduate and undergraduate contributions; establishment and initiation of new programs with LA
sense of comradery among staff, faculty, and students
the very fact that such activities exist
growing and becoming nationally visible; healthy, positive atmosphere
interdisciplinary nature of program
national PR is working well
serves as interdisciplinary focus for otherwise mutually exclusive specialties
wide dissemination of information
increased campus and community visibility
intense activity; funding efforts, speakers and hard work of staff

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feedback from Tinker and overseas activities have been commendable
Salvador's exhibition of Tarascan ceremonial art was and is a smash hit
well-organized, successful pursuit of funding
advocacy of more support for LA library materials
level of strong intellectual discourse infinitely higher with LAI's interdisciplinary environment
support and respect for hard work and publications
LAI's response to campus-wide activities of Latin Americanists
good job of gaining the cooperation and support of disparate groups
genuine cooperation with NMSU

II. What things have impressed you as especially weak or negative among the various Latin American activities at UNM?

eager to show motion often without apparent regard for quality
should send out reminder (follow-up memos) about events
library budget seriously under-funded
role of concilium is nebulous and weak
lack of overseas study opportunities
lack really close coordination with LAPE; exchanges largely informational
few activities are collaborative
not enough response to research and publications
more emphasis upon organized collective and individual research
publicity could be improved
communication between LAI and departments not effective enough
divisiveness which seems to linger
no effort to give people credit for what they do
language area declining badly
lack of organization due to growing pains
inability of some departments to concretize their committment to an interest on Latin America
lack of support for travel assistance
too much emphasis on "activities
lack of overall visibility among students and faculty
shortage of students in undergraduate classes
study-abroad options much too limited, not very substantive
not many native born Hispanics included in the staff or LAI activities
no concerted research efforts by LAI
lack of direct, explicit, overt support from the Provost's office
physical space for institute
too much administration and too small on action program
infiltration into other departments
failure to attract non-Latin Americanists
lack of research-oriented activities
not enough speakers/colloquia on women in Latin America
lack of leadership of concilium; director is overextended with LARR, sociology, LAI, and presidential search
LAI/LAPE communication
lack of real support from administration for program activities, staffing, etc.
lack of commitment from library dean to keep up the LA collection
lack of continuity in BA and MA programs; lack of recruitment efforts; lapses by the director into bureaucratic in-fighting
occasional lack of communication
lack of information about Mexican exchange program
LAI should be given more academic authority; thought given to future establishment of an academic department within the LAI
more attention to science-related concerns in Latin America
too much emphasis on paperwork and newsletters-little direct impact on other areas
recruitment of grad students
coordination
a bit of academic snobbery; cliqueishness

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III. What suggestions do you have for improvement, reorganization, or innovation in Latin American programs at UNM?

more informal atmosphere at times
decide where particular programs will be coordinated
place more emphasis on science, mathematics and engineering
more community participation, i.e., more external publicity
shorter lengths of time to be contemplated for faculty travel
increase communication
get a bigger envelope
secure additional GAships or scholarship funds for grad students
reopen Andean Center
better staffing for LAI so they don't get wiped out
More money for LA collection development
more course offerings at 100 and 200 levels to funnel students into program
more money from UNM central administration
more administrative staff (the current staff seems overburdened)
more interdisciplinary approach
Ph.D. in Ibero-American studies should be broadened out to provide for more academic options
more concerted research efforts by LAI
develop an LAI lecture series, intended to encourage interdisciplinary contact and enrichment-but not the catered luncheon approach, please
other double-major Ph.D.s along the lines of Ibero-American degree
allow students to pick their combinations and work out course requirements
improvement needed with regard to follow-through on planned activities
need for placement service; career orientation for LA students
need to develop an alumni roster
better ties with local community with interest in LA topics
don't lean so far to the LEFT
increase pressure to do publications
more cultural activities combined with various "special events", e.g., Caribbean Week
do not be so presumptive
attract more students into courses in Latin American studies
intensify activities in targeted areas
support for faculty travel to LA countries
positive outreach for lower division students
PR at freshman and sophomore levels vital
improve publicity; more effective communication between LAI and departments
more aggressive student recruitment
involve LA concilium in a more direct and active way
encourage more UNM faculty to offer colloquia to discuss their research
strong commitment to research
LA program still too diverse, LAI and concilium should better define one or two central areas to emphasize
secure several grants for interdisciplinary projects
set some specific attainable goals each year to focus on improving one or two aspects of the LAI.
let committee members and concilium know more about the overall course of events before final decisions are made
summarized policy committee minutes do not really give a sense of what is coming up in the way of initiatives by the LAI

LATIN AMERICAN INSTITUTE

1982 Evaluation

A. The first set of questions are followed by numbers which will allow scaling of your opinions and evaluations. You are encouraged to add written comments following each question, or attach a sheet of paper with additional observations. A six-point scale is being used; please circle the applicable number:

1	2	3	4	5	6	DK
Very Poor	Poor	Fair	Good	Very Good	Excellent	Don't Know

---

1. How would you evaluate the contribution of the central office of the LAI to the overall Latin American program at UNM?

   1 2 3 4 5 6 DK

   a) The Director:
   1 2 3 4 5 6 DK

   b) The Associate Director for Academic Programs:
   1 2 3 4 5 6 DK

   c) The Associate Director for Administration:
   1 2 3 4 5 6 DK

   d) The office staff:
   1 2 3 4 5 6 DK

   Comments:_____

2. How would you evaluate the contribution of the Policy Committee of the LAI to the overall Latin American program?

   1 2 3 4 5 6 DK

   Comments:_____

3. How would you evaluate the contribution of the Faculty Concilium to the overall Latin American program?

   1 2 3 4 5 6 DK

   Comments:_____

1	2	3	4	5	6	DK
Very Poor	Poor	Fair	Good	Very Good	Excellent	Don't Know

4. How would you evaluate the national reputation and standing of the LAI?
   1 2 3 4 5 6 DK

   Comments:_____

5. How would you evaluate the ability of LAI to obtain grant funding from public and private sources?
   1 2 3 4 5 6 DK

   Comments:_____

6. How would you evaluate the Latin American program as compared to other major programs at UNM?
   1 2 3 4 5 6 DK

   Comments:_____

7. How would you evaluate the B.A. program in Latin American Studies?
   1 2 3 4 5 6 DK

   Comments:_____

8. How would you evaluate the M.A. program in Latin American Studies?
   1 2 3 4 5 6 DK

   Comments:_____

9. How would you evaluate the Ph.D. program in Ibero-American Studies?
   1 2 3 4 5 6 DK

   Comments:_____

1	2	3	4	5	6	DK
Very Poor	Poor	Fair	Good	Very Good	Excellent	Don't Know

10. How would you evaluate the dual degree programs: (a) M.A. in Latin American Studies/M.B.A.; (b) M.A. in Latin American Studies/M.P.A.?

1 2 3 4 5 6 DK

Comments:_____

11. How would you evaluate the character and utilization of the physical facilities for LAI at 801 Yale, N.E.?

1 2 3 4 5 6 DK

Comments:_____

12. How would you evaluate the provision of over-seas study in Latin America and Spain for UNM students?

1 2 3 4 5 6 DK

Comments:_____

13. How would you evaluate LAI's information services (LAI Notes, LAI Bulletin, and Calendar of Events)?

1 2 3 4 5 6 DK

Comments:_____

14. How would you evaluate LAI's outreach programs (Teacher-Fellow program for graduate LA studies; Spanish for Professionals; Spanish for Faculty; Summer course on LA studies, etc.)?

1 2 3 4 5 6 DK

Comments:_____

1	2	3	4	5	6	DK
Very Poor	Poor	Fair	Good	Very Good	Excellent	Don't Know

15. How would you evaluate the LAI's lectures and public events series?
1 2 3 4 5 6 DK

Comments:_____

16. How would you assess library purchases of materials for your area of specialization for the past two years?
1 2 3 4 5 6 DK

Comments:_____

17. How would you evaluate the adequacy of overall library holdings for your area(s)?
1 2 3 4 5 6 DK

Comments:_____

18. How would you evaluate the support of Latin American programs provided by the UNM central administration during the past year?
1 2 3 4 5 6 DK

Comments:_____

19. How would you evaluate the support provided by LAI for research by faculty and graduate students (Tinker Summer Research Grants; Ecuador Rural Development Research Program)?
1 2 3 4 5 6 DK

Comments:_____

1	2	3	4	5	6	DK
Very Poor	Poor	Fair	Good	Very Good	Excellent	Don't Know

20. How would you evaluate the support provided by LAI for faculty travel to attend professional meetings?

1 2 3 4 5 6 DK

Comments: _____

21. Taken as a whole, how would you evaluate the development and functioning of the Latin American Institute during the past two years?

1 2 3 4 5 6 DK

Comments: _____

B. The following questions are open-ended. They are an essential part of the evaluation and any comments you may wish to make, however brief, would be very much appreciated.

1. What things have impressed you as especially healthy or positive among the various Latin American activities at UNM?

2. What things have impressed you as especially weak or negative among the various Latin American activities at UNM?

3. What suggestions do you have for improvement, reorganization, or innovation in Latin American programs at UNM?

ANNUAL REPORT

of the

LATIN AMERICAN INSTITUTE

1 July 1982 - 30 June 1983

Gilbert W Merkx, Director

Significant Developments

The entire operations of the Latin American Research Review were transferred during summer 1982 from the University of North Carolina (UNC) to UNM. Leah Florence, managing editor at UNC, also came to help establish the journal in its new home, the southeast corner of the LAI building, formerly occupied by the Southwest Hispanic Research Institute (SHRI). The office staff are Sharon S Kellum, managing editor; Gordon Odell, subscription manager; and Rosa Herrington, secretary. The first issue under the UNM editorial team, including Gilbert W Merkx, editor, and Karen Remmer and Tamara Holzapfel, associate editors, appeared in spring 1983.

The LAI was again designated as a National Resource Center for Latin American language and area studies under Title VI of the Higher Education Act, with its consortium partner, New Mexico State University (NMSU). Funding for the LAI/CLAS program was approved at $128,117 for 1982-83, which included monies for graduate student fellowships. The

LAI was visited 30 March-1 April by Joseph Belmonte, senior staff official of the Office of International Education (OIE), the Department of Health, Education, and Welfare entity responsible for Title VI funding. Mr Belmonte met with LAI staff, Title VI fellowship holders, faculty concilium officers, and Provost McAllister Hull. His reaction was one of enthusiasm for the ways in which UNM's Latin American programs are developing.

The LAI Policy Committee simplified the committee and subcommittee structure of the Faculty Concilium on Latin America during 1982-83. There now are three other committees of the concilium: evaluation, library, and program. In addition, there are three subcommittes of the policy committee: budget, grants and awards, and publications. Selection of Title VI fellows (under the National Resource Center for Latin American Language and Area Studies grant) has been assigned to the Interdisciplinary Committee on Latin American Studies (ICLAS).

A two-person evaluation team--Riordan Roett, director of the Latin American Program, School of Advanced International Studies, Johns Hopkins University, and Michael C Meyer, director of the Latin American Center, University of Arizona--visited UNM 8-11 December to review LAI programs and UNM degree offerings in Latin American studies. They met with many members of the concilium, with students, and with university administrators. Their evaluation contained praise for the continued progress of UNM's Latin American programs; a copy is included as an appendix to this report.

Following a successful offering series of Spanish and Portuguese for Professional courses in the spring 1982 semester, the LAI offered courses as well during both semesters of the 1982-83 academic year. During the fall semester, late afternoon and evening courses were scheduled for those in medicine and business. Three units of credit were offered in each course. Enrollments showed a marked increase in the spring 1983 semester. Enrollment in the seven Spanish sections offered for professionals in the community was seventy-nine persons, and UNM faculty and staff enrollments in the Spanish in Spanish and Portuguese tutorials totaled seventy-six persons. Carol Robles is coordinator of the program, which is supported with funds from the LAI Title VI grant.

During the 1982-83 academic year, three undergraduate-level courses were offered through the Colonialism and Its Legacy: Undergraduate International Studies and Foreign Language Program, in its second and final year under a $70,000 grant to the LAI from the Office of International Programs, US Department of Education. The courses were Overseas Empire: Colonialism in the Making of the Modern World; The Legacy of Colonialism in the Contemporary World; and Literature and Colonialism. The first two were history courses, the latter was in the Department of English.

In addition, three guest lecturers were presented: Kenneth Maxwell, program director of the Tinker Foundation; Frank McCann, Portland State University; and Frank Adler, Antioch College. The interdisciplinary program focused on interdisciplinary cooperation among the various area specializations at UNM--Africa, Europe, Latin America, and the Middle

East--through an examination of the colonial process and its consequences.

The LAI bid to host the 1985 congress of the Latin American Studies Association (LASA) in Albuquerque was successful. LASA is the largest interdisciplinary association of its kind in the world, with an international membership. The LAI also will be acting as host for the Latin American Jewish Studies Association (LAJSA) meeting in October 1983, just before or after the LASA congress in Mexico City. The theme of the conference will be "The Jewish Experience in Latin America." Specialists from Latin America, Israel, Europe, and the United States are expected to participate.

Partial funding for the conference of up to $20,000 is expected from the Institute of Jewish Affairs in London; additional, though minor, support is expected from the World Jewish Congress, the American Jewish Committee, and the Memorial Fund for Jewish Culture (the latter two for publication of the proceedings). In addition, a grant application has been submitted to the National Endowment for the Humanities (NEH) requesting the maximum permitted funding level of $10,000. support

A memorandum of understanding was exchanged between Mr Merkx amd Jon C Wade, president of the Institute of American Indian Arts (IAIA), Santa Fe, outlining areas in which the two organizations would like to develop cooperative ventures. Areas of mutual interest include furthering the dissemination and exchange of information, experiences, and cultural

materials between Indian populations of North, Central, and South America, particularly in areas related to their artistic heritages. The two institutes will be seeking funding for joint conferences, symposia, and programs, and facilitating the participation of Latin American scholars and students in both IAIA and LAI programs. The memorandum of understanding is included in the appendix.

Significant Plans and Recommendations for the Near Future

In November 1982, the president of the faculty concilium, Peter Gregory, asked that the LAI staff prepare a five-year development plan for UNM's Latin American programs, to be presented to the policy committee. Suggestions from all interested persons were encouraged. A final draft was approved by the policy committee in spring 1983; a copy is included as an appendix to this report. It includes the following ten goals:

1) To achieve for the UNM Faculty Concilium on Latin America recognition as the nation's outstanding collection of Latin Americanist faculty, taken as a whole. To maintain and strengthen the twenty-seven UNM degree programs on Latin America at levels of quality that will gain for them national recognition as outstanding programs in the respective disciplines or fields.

2) That enrollments in the MA in Latin American Studies program, which are an important source of graduate students for advanced disciplinary and professional programs, be increased to approximately fifty students. That enrollments in advanced disciplinary and

professional degree programs be increased to the carrying capacity of the respective academic units.

3) To reopen the UNM Andean Study and Research Center in Quito, Ecuador.

4) To establish the Latin American collection of Zimmerman Library as one of the nation's leading research collections. To augment the research output of UNM faculty on Latin American topics to a level commensurate with the size of the faculty concilium.

5) To maintain an active program of dissemination of information about ongoing activities and research in UNM Latin American programs.

6) To stimulate state and local knowledge of and interest in Latin America. To stimulate the teaching of Latin American topics in the primary and secondary schools. To assist local government and private interests in their relations with Latin American entities. To generate support for UNM's Latin American programs from state and local groups.

7) To be recognized as a leading institution in the formation of national policy in the international education field. To successfully make the case for national investment in international education. To facilitate linkages between UNM faculty and policy makers with needs for information on Latin America.

8) To continue an active series of special projects that enhance the overall Latin American program. To maintain a steady flow of external funding that contributes to staffing, university overhead costs, faculty release time, and to the support of students.

9) Increased interaction and cooperation with institutions in Latin America. Increased cooperation with comparable Latin American studies programs at United States universities. Increased cooperation with agencies and institutions that have specialized Latin American interests.

10) To maintain a stimulating and positive atmosphere that encourages student and faculty involvement in program activities. To enhance the identity of the Faculty Concilium on Latin America and the Student Organization for Latin American Studies (SOLAS).

The LAI and the UNM Office of International Programs and Services have submitted a proposal to the United States Information Agency (USIA) requesting $50,000 over a three-year period to fund faculty exchanges with the University of Sao Paulo (USP). If funded, the grant would allow three UNM faculty and three USP faculty to be exchanged in each year of the program. A convenio already exists between the two schools. According to USIA guidelines, priority would be given to exchanges in the humanities, social sciences, and education, with a lesser priority to applied professional fields.

Preparations for the 1983 Summer Institute on Brazil progressed well during the 1982-83 academic year. Accomodations and facilities in the Taos Ski Valley were obtained at a reasonable price, the brochure has been widely distributed, and before the application period ended the LAI was receiving three or four applications daily. More than 30 specialized newsletters and journals carried the announcement for the Brazil institute, and arrangements for participating and visiting faculty were completed.

Appointments to and Separations from Staff

Mr Merkx and Theo R Crevenna remained in their respective positions as director and deputy director. Jon M Tolman, associate professor of modern and classical languages, replaced Dick Gerdes as associate director for academic programs.

Garth Hansen, administrative assistant, resigned to accept a position as visiting assistant professor of history at New Mexico State University (NMSU). Vickie Madrid Nelson replaced Teresa Harper-Rodriguez as department secretary. Taking her place as staff secretary is Christine Lopez. Jimmy C Diecker became staff writer.

Joel Wolfe, a recent graduate of Georgetown University, was the graduate assistant in Latin American studies, and C Jeffery Evans, an MA candidate in Latin American studies, received a challenge assistantship awarded by the graduate school. The Title VI teaching assistant for Quechua was Maria Chuquin. Student employees included M Karen Bracken, Curtis Lee, and Marilee Schmit.

Publications

LAI publications for 1982-83 included three titles in the Research Paper Series, which continues to be more and more widely circulated, both in the United States and abroad:

BALES, Fred V. "Comparing Media Use and Political Orientation Among Squatter Settlers of Two Latin American Countries"

CONNIFF, Michael L. "Black Labor on a White Canal: West Indians in Panama, 1904-1980"

FROEHLICH, Jeffery W and Karl H Schwerin. "Conservation and Indigenous Human Land Use in the Rio Platano Watershed, Northeast Honduras"

The monthly LAI Notes continued to grow in circulation as well, with an increasing off-campus distribution. Still focusing on employment opportunities, conferences, and local events, the Notes also strives to be a publication of record of LAI activities.

Outside Professional Activities of Staff Members

At the invitation of the ICA and the Charles Kettering Foundation, Director Merkx attended a one-day meeting in Denver to examine the possibilities of international exchanges through and with the cooperation of local community groups. The LAI function in such an undertaking would be primarily catalytic, and would be coordinated with the UNM Office of International Programs and Services. The ICA through the Kettering Foundation would provide seed money to establish liaison and cooperation among the perhaps 12-14 groups in Albuquerque which now

have a role in international exchanges, including youth exchanges, e.g., Partners of the Americas, Amigos, Pan American Round Table.

Director Merkx, Deputy Director Crevenna, and Jon M Tolman, associate director for academic programs, met during the 1982-83 academic year in both Albuquerque and Las Cruces with other members of the board of governors of the New Mexico Consortium for Latin American Studies--UNM and NMSU. The board of governors coordinates cooperative ventures between the two schools, including an annual conference.

Mr Merkx and Mr Crevenna also attended the annual meeting of the Rocky Mountain Council on Latin American Studies (RMCLAS), held this year in Park City, Utah.

Outside-sponsored Research

The Andrew W Mellon Foundation of New York in mid-1982 gave the LAI a grant of $200,000, which will support LAI activities over a seven-year period. Interest and principal from the grant are being used for field research grants, Inter-American internships, student program interns, monographs and publications, a distinguished visiting fellow program, and support of an annual Latin American studies colloquium.

Twenty Mellon Inter-American Field Research Grants, and three Mellon Inter-American Internships were awarded in 1982-83. The field research grants is to make field experience available to graduate students and to younger scholars, to keep senior scholars in touch with the rapidly changing events in Latin America, and to sharpen language and area

skills. The internships allow graduate students opportunities to work in inter-American organizations or public, private, or international institutions.

In addition to the substantial size of the grant, it indicates the level of national recognition being received by the LAI: the Mellon Foundation only invites proposals--it does not consider unsolicited ones--and its policy is generally one of giving only to private institutions.

The Peace Corps contract with UNM was again successfully completed, with Audon Trujillo, the on-site recruiter, exceeding his quota. The 1982-83 funding for the office was about 8 percent higher than for 1981-82. The Peace Corps office is housed and administered through the LAI.

Other Activities

The LAI, in cooperation with the UNM-UNAM Steering Committee, cosponsored a lecture series during the fall and spring semesters on the Mexican crisis. The series featured talks by Leopoldo Gonzalez Aguayo of the Universidad Nacional Autonoma de Mexico (UNAM), Gabriel Carriaga (UNAM), Erendia Urbina (UNAM), Gustavo Sainz (UNM), Miguel Abrusch Linder (UNAM), and Francisco Casanova Alvarez (UNAM). UNM faculty were commentators on the themes discussed.

American policies and perspectives on human rights in Latin America were the focus of a series of lectures at UNM during the spring 1983 semester. Speakers included Patricia Weiss Fagen, associate of the Refugee Policy Group and a board member of Amnesty International USA;

Juan Mendez, a member of Americas Watch, and a board member of Amnesty International USA; and Tom J Farer, lecturer at Princeton and Rutgers universities, and a member of the Organization of American States (OAS) Inter-American Commission on Human Rights. The series was sponsored by the LAI with a grant from the Sperry-Hutchinson Foundation Lectureship Fund.

The annual meeting of the LAI-CLAS New Mexico Consortium for Latin American Studies was 25-26 March at Las Cruces. The program theme was "Mexico: the Critical Years, 1982-1988." Various UNM faculty participated in two days of panels.

An important stimulus to the overall Latin American studies program at UNM has come from the highly successful Visiting Scholars program. This program, which does not involve the expenditure of any funds, makes the faculty-rank appointment of Visiting Scholar available to professionals from other institutions who wish to be in residence at UNM and to be involved with LAI programs. Visiting Scholars are afforded all faculty privileges, including access to library and research facilities:

Father Benedicto Cuesta, in charge, artistic patrimony, Archdiocese of Santa Fe;

Angela Delli Sante, professor, Center for Interdisciplinary Studies, UNAM/Acatlan, Mexico;

John M Fein, professor, Department of Romance Languages, Duke University;

Howard M Fraser, professor, Department of Modern Languages and Literature, College of William and Mary;

John L Geffroy, Department of Social Work, New Mexico Highlands University;

James A Morris, lecturer in political science, University of Texas at El Paso;

Marie Peck, Comision Fulbright, Montevideo, Uruguay; and

Rowena Aurora Rivera, research and associate professor, Department of Modern and Classical Languages, University of New Mexico.

The LAI was a cosponsor of the 3-6 November 1983 annual meeting of the American Society for Ethnohistory (ASE). The ASE is a national organization of about 500 individual members and an almost equal number of institutional members. Individuals are principally from the fields of anthropology and history, with a substantial number focusing on Latin America.

APPENDIXES

External Evaluation, Five-Year Plan, and LAI-IAIA Memorandum of Understanding

THE UNIVERSITY OF ARIZONA
TUCSON, ARIZONA 85721

LATIN AMERICAN AREA CENTER
SOCIAL SCIENCES BUILDING 216
(602) 626-1137

RECEIVED
FEB 7 1983
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February 1, 1983

Dr. McAllister H. Hull, Jr.
Provost
University of New Mexico
Albuquerque, NM 87131

Dear Dr. Hull:

This letter constitutes our report of findings from the extra-mural evaluation of the New Mexico Consortium for Latin American Studies. Professor Michael C. Meyer evaluated the program at New Mexico State University on December 8, 1982 and Professor Riordan Roett and Professor Meyer together evaluated the Latin American Institute of the University of New Mexico on December 9 and 10. In both cases the evaluators were able to talk to a widely diverse and cooperative group of interested persons and came away from the individual and group sessions convinced that in all cases the responses to their queries were handled with sensitivity and candor.

At New Mexico State University Professor Meyer had the opportunity to meet with President Thomas, Assistant to the President Ellwood Wade, Dean of Arts and Sciences Thomas Gale, New Mexico State University Regent Rudy Apodaca, Latin American Center benefactor Mrs. Marion Nasson, as well as with faculty, staff, and students. Center Director Louis Ray Sadler, made himself available to Professor Meyer during the entire day.

There is no doubt that the Consortium arrangement between the two universities has served the program in Las Cruces well. A major weakness in the program, pointed out during an evaluation conducted slightly over two years ago, has been corrected as beginning Portuguese is now offered on the New Mexico State University campus. Student interest in Latin American Studies appears high and enrollment figures in Latin American content courses are holding steady.

A strong administrative endorsement of the Latin American program can be seen in the decision of Dr. Thomas to turn the former presidential residence at New Mexico State University over to the Latin American Center and to provide the necessary funding for rennovation and remodeling. The building, located on spacious ground in the center of the campus, will not only provide the Center with badly needed office space and conference rooms, but will demonstrate to faculty, staff and students the administration's support for the Latin American Center. The acquisition of this new building is as important to the program in Las Cruces as was the acquisition of the new building on the University of New Mexico campus several years ago.

Another recent development is worthy of special note. Professor Charles Tatum of the Department of Foreign Languages is now editing a new journal, Studies in Latin American Popular Culture. While this new publishing venture is not an undertaking of the same magnitude as editing the Hispanic American Historical Review or the Latin American Research Review, it is nevertheless an important scholarly contribution to the community of Latin Americanists. At the present time Professor Tatum is editing the journal without released time from his own department and without secretarial assistance. If the new journal is to continue, and if it is to prosper, Professor Tatum will need released time and, at least, part-time clerical help.

In viewing the budgetary structure of the Latin American Center at New Mexico State University it is apparent that a large percentage of administrative, clerical, and student support is now funded with soft money. Because funding under Title VI and other federal programs must be considered temporary rather than permanent, every effort should be made to shift positions or percentages of positions to state lines as budgetary conditions permit. This will minimize the possibility of severe dislocation in the event of the termination, for some reason, of federal funding.

At the University of New Mexico we were able to visit with more than 50 persons, including newly named President John Perovich, Provost McAllister Hull, the entire Latin American Institute staff, the editorial staffs of the Hispanic American Historical Review and the Latin American Research Review, the Interdisciplinary Committee for Latin American Studies, the president and vice president of the Latin American Faculty Concilium, Peter Gregory and Edwin Lieuwen, and with a representative delegation of graduate and undergraduate students. In addition, we were invited to attend and participate

in a regular afternoon meeting of the Latin American Institute Policy Committee. Some faculty members met with us on two or three occasions in their various capacities. Through these meetings we are confident that we received a thorough and accurate appreciation of the current status of the Latin American program at the Univeristy of New Mexico.

The Latin American program at the University of New Mexico is in excellent health. The majority of activities initiated on an experimental basis with the reorganization of the Latin American Institute in 1979 have now stood the test of time and have become institutionalized. The Latin American program is remarkable in both breadth and depth. The consortium arrangment with New Mexico State University can be developed much further but should be considered a model cooperative enterprise. Ranking of the University of New Mexico program with federally funded programs elsewhere in the country is a precarious business at best, because different programs excel in different areas, but by any general standard the New Mexico program must rank close to the top.

LAI Staff

The LAI is well served by a highly professional and innovative professional staff. Gilbert W. Merkx, the Director, is a well-known sociologist who also serves as editor of the Latin American Research Review, the leading interdisciplinary journal in the field of Latin American Studies. The LAI Deputy Director, Theo R. Crevenna, brings many years of experience to his position from the Organization of American States and is a valuable resource on Washington bureaucracy. Jon M. Tolman, the Associate Director for Academic Programs, is a leading specialist on modern Brazilian poetry and brings an important dimension to the LAI given his Brazilian and Portuguese language expertise.

The decision to complement the three directors with a young and enthusiastic support staff appears justified. Our discussions with the staff indicated a reasonable division of labor without indication of unnecessary bureaucratic competition or overlap. The commitment of the program officers and other assistants to the creation and maintenance of a quality program is impressive. All in all, we found the staff of the LAI to be a very strong aspect of the overall program.

LAI Governance

As with any relatively new institutional arrangement, the LAI structure of governance continues to evolve. While the administration of the Institute itself is functioning without apparent difficulty, we want to note the following areas that will require further development: the Faculty Concilium of the LAI. Since the reorganization of the overall program at the end of 1978, and the creation of the LAI, the Faculty Concilium has sought to carve out a useful and substantive role. As a campus-wide entity, it is not meant to function on a day-to-day basis. It has adopted an intelligent posture as a "pressure group" for UNM faculty interested in Latin America on specific issues such as greater support for the library. The Concilium serves as a useful mechanism for recruitment of new Institute faculty members. The new procedure whereby the Concilium officers appoint the committees of the Institute is a move in the right direction.

We found a general feeling that the Concilium leadership should be better integrated into the planning process for the LAI - but not involved in the day-today operations. The current discussion of a five-year plan for the Institute, which grew out of conversations with the leadership and members of the Concilium, is a good example of the way in which the Concilium can play a positive role in the development of the program of the Institute.

The Policy Committee of the Concilium appears to be an appropriate way of channeling Concilium interest into the overall program planning process of the LAI.

LAPE and SHRI

Both of these programs appear to have a less "organic" connection to the LAI than other professional and academic activities at UNM. It may well be that the unique functions of LAPE, and the rapid turnover of participants, precludes greater coordination with the LAI. The SHRI is a new initiative at UNM and bonds will undoubtedly evolve, over time, between the two institutes. While efforts should continue to work as closely as possible with both LAPE and SHRI, it may be some time before "ideal" ties develop.

Study Abroad

We found widespread support among both students and faculty for a university commitment to provide overseas opportunities for research and field experience. The reopening of the Andean Center in Quito, Ecuador is a high priority for the LAI, we believe. UNM occupies a

unique position in Ecuador. Its many years of quality training and its strong and positive relations with a variety of Ecuadorean institutions is a record difficult to match in Latin America. The Quito program of UNM remains well known both in Latin America and in the United States.

We believe that the university should explore the possibility of some local support in Ecuador for the reopening of the Andean Center. The Center serves Ecuadorean interests as well and some financial support may be available for fellowships and other forms of local expenses. Other southwestern universities might be interested in working with UNM on the reopening.

Given the historical importance of the Andean Center and the well justified need to provide a Latin American extension of the LAI program, we hope the university will be able to provide the funding needed in the very near future.

Dual Degree Programs

We found the dual degree programs to be universally popular. They are a very substantive demonstration of the effectiveness of the LAI in seeking intra-university linkages. The approval by the Curriculum Committee of the MA-LAS Nursing degree, which awaits final approval by the Faculty Senate, is another indication of the university-wide respect with which the LAI program is viewed. We strongly encourage support for the professional dual degree programs and a careful consideration of other such initiatives if the opportunity presents itself.

Intra-University Collaboration

Our meeting with the UNM programs related to LAI - the Maxwell Museum, the Law Library, the Management School, the Library, the Press, and Fine Arts - provided an opportunity to assess the general impact of LAI and its perceived usefulness to other divisions of the university. Once again, we found respect for and a great willingness to work with LAI. The Institute has clearly provided inspiration, seed money, coordination, and outreach for a wide variety of cultural, academic and professional activities at UNM. The general theme that emerged from the meeting was that of openness and interest on the part of the LAI in collaboration on campus - and off. The unanimous reaction of those with whom we met demonstrates the key role of LAI at UNM.

Faculty Replacements

Along with the library collection, the faculty in Latin American Studies is the most valuable, permanent resource for the LAI at UNM. We recommend that the university administration seriously consider the appointment of a small number of very well-known figures in the field of Latin American Studies as positions open at UNM. While the "star system" does not necessarily make the difference in establishing the credibility of a program, it does provide an "instant" recognition factor that the LAI well deserves in the United States and abroad.

Distinguished, senior faculty attract first-rate doctoral students and play an important role in both stimulating and initiating research. Such appointments will complement the well-established figures now serving on the faculty and indicate the university's support for what is an excellent program and a great asset for UNM.

Areas of Concern

Rather than dwell further upon the strengths which are self-evident, we would like to use this opportunity to comment upon some of the vulnerable points which we detected and which some of the faculty and students brought to our attention. Several faculty members expressed to us some dismay with the fact that the Latin American Institute has devoted too much emphasis to its outreach functions and too little to directly promoting Latin American scholarship. In our conversation with you, you also expressed the desire for the Institute to become more directly involved in Latin American research. We too believe that the Latin American programs of the University of New Mexico, because of the unquestioned faculty strength, should be on the cutting edge of scholarly research in the Latin American field. But this issue is a complex one. The emphasis on outreach--sometimes at the expense of traditional scholarship--is the unfortunate price institutions must pay for federal funding under Title VI. No outreach, no federal funding. Institutions accepting the federal dollars must strive for a balance between the two. Federal funding provides at least modicum of budgetary flexibility and helps attract other sources of outside support. The Latin American Institute has been successful in bids for other grants and some of them have been used directly to support research activities. The Tinker Summer Research Grants awarded to the Latin American Institute, for example, permitted dozens of junior faculty and graduate students to travel to Latin America during the last three years.

In addition to its sponsorship of faculty reasearch grants, the Latin American Institute performs scholarly functions in at least two other ways, one minor and one major. Several years ago it initiated an Occasional Papers Series. Designed as a pre-publication mechanism to solicit professional response from outside the University community, these papers are a useful first step to encourage research and publication. Much more importantly, as you well know from your support, the University of New Mexico now houses two premier journals in the Latin American field, the Hispanic American Historical Review and the Latin American Research Review. The functions performed by the respective staffs are vital ones. Not only do the decisions made at the University of New Mexico seriously affect the careers of scores of individual scholars elsewhere in the country, but more importantly they set the tone of scholarship, encourage or discourage new methodologies, and guide the research for the entire field. The results are not yet in for the Latin American Research Review as the New Mexico editors have not yet published their full first issue, but we are confident that the journal is in good hands. We are able to give you a better reading on the Hispanic American Historical Review, since accepting editorial responsibility from the University of Arizona, the New Mexico editors, Johnson, Lieuwen, Bakewell, and Gard, have done an outstanding job. The most serious criticism voiced to us in discussions with colleagues throughout the United States was the decision to violate sixty-one years of historical tradition by changing the cover color from tan to blue. But in a more serious vein, the innovations, including topical issues and interviews with historians, have been favorably received by Latin American historians in the United States, in Latin America, and Europe.

This brings us back to the question of the research function a Latin American Institute, without its own faculty, can be expected to perform. A few Latin American centers do have a more vigorous research compoent, some of the effort being funded by the institutions themselves, and some attractig outside funding. A visiting scholar program can serve as a focal point for this activity. A small team can be assembled once or twice a year to offer mini-seminars or to stimulate faculty colloquia. In such instances a mix of United States and Latin American scholars is most healthy. Allocation of a temporarily vacant faculty line combined with foundation support often make the funding of such programs feasible. Visiting Fulbright Fellows or Latin American scholars in the country under the aegis of the International Visitor's Program can be utilized as well.

The Library

The greatest obstacle to a viable research program in Latin American studies at the University of New Mexico is the library--a matter which we discussed generally with you and with President Perovich during our visit. It is an issue which was raised critically during the last extra-mural evaluation and which continues as the major weakness of the University of New Mexico's Latin American effort. This matter is of such importance that we wish to address it, going beyond the truism that the library is to the social scientist and humanist what the laboratory is to the natural scientist.

The library was the issue raised most repeatedly and most critically by both faculty and students during our two-day evaluation. Graduate students found it inadequate to complete their doctoral dissertations after returning from the field and faculty members informed us that they often travelled to other universities to consult basic research in their own fields. A research library of about 1,000,000 volumes for a state university of 23,000 students in 1983 cannot be considered excellent or even good. It is below average. An acquisitions budget of $1,374,232 for non-serial items is also grossly inadequate. For comparative purposes we include the size of library collections and annual acquisitions budgets at neighboring institutions. The data comes from the 1982 American Reserach Library Report.

	Volumes	Annual Acquisitions Budget*
University of Colorado	1,927,699	$1,730,087
University of Arizona	2,741,442	3,996,488
University of Texas-Austin	4,846,764	4,847,047
University of California, Los Angeles	4,822,164	4,195,060
University of New Mexico	1,086,529	1,374,232

*Does not include expenditures for serials or binding.

The percentage of Latin American holdings in the total Zimmerman Library Collection is relatively high, but the figure of 220,000 Latin American volumes might very well be inflated. Any professional librarian will caution against placing great faith in the estimated totals so often necessary to accompany grant proposals. The difficulty in obtaining accurate estimates stems from many factors: different conversion

multiples in converting titles to volumes; different methods of calculating card catalog and shelf measurements and converting them to volumes; different percentages of multivolume and serials sets in the total collection; different criteria for selecting Dewey Decimal and Library of Congress classification for inclusion under Latin American materials; and the understandable tendency to present the strongest case possible along with applications for funding. If the Latin American holdings of the library even approach 220,000 volumes (and we doubt this figure) the collection effort of the past has been haphazard at best, leaving the library with thousands of marginal volumes and with great gaps in geographical chronological coverage. Our own spot checking of the card catalog reveals a good representation of recently published English language works but serious gaps in important materials published in Latin America and Europe in both the recent and distant past. Our conversations with graduate students and faculty members reconfirm this finding.

You asked us during our visit to be as specific as possible in our library recommendations. In addition to visiting the library during our evaluation we also solicited information from your Latin American faculty and library staff. The most critical areas in need repair are the following:

1. Latin American and Spanish periodical runs. In some cases entire sets are absent and in others coverage is broken. The Latin American newspaper collection should be strengthened as well.

2. Colonial history is good to excellent in Mexico and lower Peru but weak on other areas of Spanish South America.

3. The collection of historical dictionaires is poor. This area is not nearly as esoteric as it might appear at first glance. These dictionaries are crucial for current legal research in fields such as Hispanic land law and water law, issues which are pending in New Mexican and federal courts today.

4. Latin American statistical data - historical and current - is another weakness. Central bank reports, World Bank documents are increasingly available on microforms and are curcial for policy studies as well as business research.

5. A wide range of Latin American consular reports are now available from the National Archives and the UNM collection should be augmented. These primary sources are vital to the study of diplomatic history, economic history, and the general area of United States-Latin American relations.

6. For contemporary Latin America, the library should try to strengthen its Chilean holdings for the Allende period in Chile.

7. The art history collection has made major progress in the last few years but would profit greatly from a greater emphasis on journals devoted to this subject area.

8. The Hispanic legal collection would be enhanced by the acquisition of the Official Gazettes of the major Latin American countries. These are currently being filmed by the Library of Congress. The law library should also be on constant alert for the sale of private collections which often contain out of print items unavailable in the open market or even through antiquarian dealers.

It is difficult for us to place an accurate dollar amount on the areas listed above but $300,000 to $350,000 spread over the next five or six years (in addition to current Latin American expenditures) would go a long way in correcting the inadequate funding levels of the past.

Conclusions

We were positively impressed with what we saw and what we heard during our evaluation of the Latin American program. The general enthusiasm voiced by students, faculty and staff pervades the campus. Administrative support of LAI is widely recognized and appreciated. The program transcends the artificiality of departmental and collegiate structure as well as any inter-disciplinary program can be expected to. While finding appropriate mechanism for faculty and student participation in LAI governance. Professor Merkx has exerted forceful and imaginative leadership. The program's strengths are known in Latin American circles throughout the country and certainly bring distinction to the University of New Mexico. The archiles heel, as we have indicated, is the size of and annual funding for the university library. If a significant effort is made in this area we are confident that the Latin American Institute will continue to command the national prestige it now enjoys.

We hope this evaluation is responsive to your needs. If we can provide you with any additional information we will be happy to do so. Finally we wish to take this opportunity to express our appreciation to you and your colleagues in Albuquerque and Las Cruces for the courtesies extended to us during the evaluation.

Sincerely,

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A FIVE-YEAR PLAN FOR THE UNM LATIN AMERICAN INSTITUTE

1984-1989

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December 1983

A FIVE-YEAR PLAN FOR THE UNM LATIN AMERICAN INSTITUTE

1984-1989

PREFACE

In December, 1983, the UNM Latin American Institute completed five years of operation. These years were marked by considerable accomplishment and program development, which amply justified the confidence placed in the Institute by its founders. The purpose of this document is to outline objectives for the future development of the Institute in the second five-year perios of its existence, in the hope of stimulating discussion of important goals and planning for their achievement.

At the time of the Institute's founding, the Latin American program at UNM was known as one of the oldest and largest foreign language and area programs in the nation. However, program faculty were concerned about an erosion of administrative support and funding, declining enrollments, and a failure to win refunding as a federally-subsidized "National Resource Center" for foreign language and area studies. This faculty concern led former UNM President William E. Davis to name a task force on UNM Latin American programs, which recommended establishment of the Institute and increased support for its activities.

Since the founding of the Institute the major problems noted above have been addressed. Administrative support has been strong, program functions have been consolidated under the Institute, student applications and enrollments have increased sharply, and the Institute has been funded as a federally designated "National Resource Center." The Institute's activities have been supported by more than one million dollars of non-state funds over the past five years, its publications include the two leading scholarly journals on Latin America and a successful Research Paper Series, and a wide variety of innovative academic and outreach activities have been inaugurated.

The success of these efforts sets the stage for the second five years of the Institute's operation and for reflection on the objectives to be sought. The discussion that follows groups such objectives into eleven categories: academic development, student recruitment, study abroad, research, publications, state and local outreach, national policy contributions, special projects, inter-institutional cooperation, program ambience, and Institute staffing.

ACADEMIC DEVELOPMENT

Goals: To have each of the 26 UNM degree options with Latin American specialization recognized as distinguished nationally in their respective disciplines or fields.

A11

To have each of these degree options adequately staffed by faculty with appropriate language and area competence.

To establish distinguished professorships to be filled by internationally eminent faculty.

To have the UNM Faculty Concilium on Latin America recognized as the nation's outstanding collection of Latin Americanist faculty, taken as a whole.

UNM faculty involved directly or indirectly with Latin American teaching and research number approximately 170 persons, constituting the largest aggregation of area studies talent at any U.S. university. Likewise, the number of degree options offered by UNM with Latin American specializations is superior to that available at any other U.S. university. The issues to be addressed in the academic development of UNM Latin American programs therefore have to do with the quality, location, and role of the faculty rather than with overall numbers.

One problem that has been identified by outside as well as local observers has to do with the relatively small number of distinguished senior faculty as compared with the large number of promising junior and middle level faculty. This problem will be exacerbated by the recent or pending retirement of senior faculty of distinction. It has been suggested that the recruitment of two or three eminent senior faculty would serve to add depth to existing faculty resources and attract national attention to the programs or departments involved. An effective way of strengthening the overall program would be to achieve this end by the establishment of two senior chairs, perhaps partially or fully endowed and known by a designation as "University Chairs" or "Regents' Chairs," one in the Latin American Social Sciences and one in the Latin American Humanities. Properly remunerated, these chairs could be used to attract outstanding scholars of international reputation, without the limitations and strictures involved in departmental decision-making.

It is also apparent that maintaining Latin American program strength in departments with key Ph.D. programs requires continuous effort. Because Latin American speicalists are always in a departmental minority, those who leave may not be replaced by Latin Americanists unless strong support from the dean of the relevant school or college is present. Dean's Advisory Committees from each school or college should be alert to advising their deans of such needs, and the Provost should be advised by the LAI Policy Committee to encourage deans to allocate resources to maintain faculty expertise in key Latin American Ph.D. programs.

The newly instituted dual-degree programs linking the M.A. in Latin American Studies to Master's degree options in Community and Regional Planning, Public Administration, and Nursing also require additional faculty support, necessary to provide seminars bridging the professional and area studies materials and to highlight Latin American area applications of professional knowledge. One means of accomplishing this end would be for a new position in each of these professional fields to be designated for a person with relevant area experience as well as professional competence. The addition of a representative of the LAI Policy Committee on search committees for new

positions might be of assistance in situations in which the new position were to be designated by the Provost or dean to provide support for the dual-degree options.

Recommendations for Academic Development

1. That the Provost and deans flag openings left by the departure of Latin Americanist faculty, and that departments be required to maintain program strength by filling these positions with persons of Latin American expertise.

2. That a representative from the Policy Committee be designated as a member of the search committees to fill such openings.

3. That new positions be earmarked for faculty with Latin American expertise to be hired for professional schools that need such faculty to properly implement the dual-degree master's programs.

4. That special chairs be established in Latin American Humanities and in Latin American Social Sciences, to attract eminent scholars to strengthen the overall Latin American program.

STUDENT RECRUITMENT

Goals: That enrollments in the M.A. in Latin American Studies, which is an important source of graduate students for advanced disciplinary and professional programs, be increased to approximately fifty students.

That enrollments in advanced disciplinary and professional degree programs be increased to the carrying capacity of the respective units.

Virtually all the 26 degree programs with Latin American options have the capacity to enroll larger numbers of students. There is a considerable time lag between the improvement of a program and the time when its enhanced reputation generates higher student enrollments. Thus five years after the founding of the LAI, applications for the M.A. program in Latin American studies increased from three to fifty. This time lag can be considerably reduced, and numbers of students increased, by advertising the degree offerings, the resources of the programs, the financial aids available, and by recruitment visits to other campuses.

Once applications have been received, financial aid for students becomes an important factor in augmenting or limiting the numbers who accept admission. The M.A. in Latin American studies, with the potential of enrolling at least fifty students per year, currently has about thirty enrolled students but has only one assistantship assigned it by the College of Arts and Sciences. It is recommended that funding to support at least five fellowships or assistantships be granted directly to the LAI by the Provost in support of this high-enrollment program.

A related problem is that academic departments may not support Latin American Ph.D. programs by awarding graduate assistantships. For example, during the fall term of the 1983-84 academic year, not one of the sixteen

assistantships awarded by the History department was allocated to a student of Latin American history, despite the fact that such students comprise a substantial proportion of graduate enrollees in that department. It is recommended that the deans of relevant schools or colleges, based on recommendations from their Dean's Advisory Committees, provide guidelines to departments requesting that fellowships be provided to graduate students in Latin American specializations in numbers commensurate with their proportionate applications or enrollments.

It is also recommended that the LAI provide support for the publication of general and specialized recruitment brochures advertising Latin American programs at UNM, to be used in conjunction with a sustained recruitment effort for all such degree programs. The recruitment should also continue and expand visits by UNM faculty to other campuses to advertise our Latin American graduate programs.

Recommendations for Student Recruitment

1. That the number of assistantships designated for support of the M.A. in Latin American Studies program be increased from one to five, and that funding for such assistantships be provided in the Latin American Institute budget.

2. That the Provost and deans request departments to award assistantships to students in Latin American concentrations in numbers approximately commensurate with their proportionate applications or enrollments.

3. That funding be provided to publish a substantial borchure on all UNM Latin American programs and fliers on specific programs, to be kept in print and revised on a regular basis.

4. That there be expansion of the program of providing travel subsidies to faculty members who travel for professional purposes to permit them to make recruitment visits to other campuses.

STUDY ABROAD

Goals: To reopen the UNM Andean Study and Research Center in Quito, Ecuador.

To provide study abroad options at the National Autonomous University (UNAM) in Mexico.

No comprehensive foreign language and area program can be complete without offering a quality, structured study-abroad program in the area itself. In addition, more specialized study-abroad opportunities should be made available to undergraduate and graduate students. The UNM program has done well in offering access to specialized opportunities, such as participation in the summer program at Guadalajara, in the Kansas program in Costa Rica, in the ESAN international management program in Lima, Peru, and in providing special access for students with institutions in places as diverse as Manaus, Brazil, and Buenos Aires, Argentina.

It is apparent, however, that these opportunities can supplement but not replace the functions of a full-structured study abroad program managed by UNM itself, such as the former Andean Center in Quito. This program was characterized by a sound curriculum, valuable student experience, considerable local visibility and support, and substantial return impact on UNM's overall Latin American programs. A generation of high quality graduate students for the professional and disciplinary programs of UNM was produced by the Andean Center.

The closing of the Andean Center reflected declining enrollments and increased costs. A variety of factors make its reopening a viable and important step. Increasing student interest on campus in Latin American studies can support higher enrollments, close working relationships with other regional universities may lead to cost-sharing and student enrollments, the government of Ecuador is expressing strong interest in the reopening, the Regents and Administration of UNM are supportive, and exchange-rate considerations have lowered the costs of Ecuadorian operations.

In addition, the comprehensive exchange activities that have developed under the agreement between UNM and the National Autonomous University of Mexico (UNAM), provide the opportunity for placing UNM students at UNAM. A pilot program for summer studies at UNAM will be inaugurated during the summer of 1984, with support from the Mexican Exchanges Steering Committee. This program will offer opportunities for students wishing to enhance their knowledge of Mexican society and culture, and serve to strengthen the traditionally strong ties between Mexico and New Mexico. Continuing support for students in this program, in the form of low-cost tuition fellowships, and support for a UNM faculty member to accompany them, should be continued, either through the Mexican Exchanges Steering Committee budget or through the LAI budget.

Recommendations for Study Abroad

1. That during the current academic year negotiations with Ecuadorian officials and potential consortium partners be undertaken, in order to finalize a plan of action of operational format.

2. That during the 1984-85 academic year juridical status in Ecuador for the reopening Center be obtained, and that a capital investment be made to obtain a building and equipment in Quito, thus lowering future operating costs.

3. That the Andean Center be operative for the spring semester of the 1984-85 academic year, following extensive local and national publicity.

4. That the Andean Center offer a money making summer-study program which draws upon students from colleges and universities throughout the United States.

5. That the Andean Center operation include an ongoing research program and provide support services to visiting scholars, as well as inaugurating annual research colloquia.

6. That the UNAM summer-study program be implemented and supported at an appropriate level.

RESEARCH

Goals: To seek out and secure creative sources of funding in order to establish the Latin American collection of Zimmerman Library as one of the nation's leading research collections.

To augment the research output of UNM faculty on Latin American topics.

As noted by Professors Michael C. Meyer and Riordan Roett in their evaluation of UNM Latin American programs, "The greatest obstacle to a viable research program in Latin American studies at the University of New Mexico is the library." Although the percentage of Latin American holdings in the overall Zimmerman collection is relatively high, Meyer and Roett state that in both overall volumes and in annual acquisitions budget, the UNM collection development effort is well behind that of competitive regional institutions. The evaluators also indicate that "$300,000 to $350,000 spread over the next five or six years (in addition to current Latin American expenditures) would go a long way in correcting the inadequate funding levels of the past." The figure cited represents an additional amount of about $50,000 per year for Latin American acquisitions, or about 50% over current levels, not an impossible sum to achieve if outside funding sources are considered.

The Latin American collection, as noted in the report, is uneven and has areas which need considerable development. Funds beyond normal library allocations would greatly strengthen the collections and would enable faculty and students alike to extend their areas of research. However, since it is unlikely that any substantial increases will be forthcoming from existing sources a variety of different sources must be sought out and consolidated for the ongoing acquisition of materials. An endowment fund for Latin American materials would achieve this purpose and is indeed the sole means of guaranteeing the continual purchase of extraordinary materials for the collection.

Research by faculty members continues to be largely individual in nature. Joint research projects designed to obtain external sponsorship and support are in need of development, and faculty initiatives in this regard are to be encouraged. One means of stimulating such initiatives might be the designation of a research committee of the Faculty Concilium, charged with stimulating the formation of faculty research teams.

Support for individual graduate student and faculty research from the Latin American Institute has been strong, through the provision of Tinker Summer Field Research Grants over the past three years and Mellon Field Research Grants that will continue to be granted through 1989. When combined with funding available through the Research Allocations Committee, the support of individual research efforts appears to be adequate for the coming five-year period.

Recommendations for Research

1. That a substantial endowment fund for the purchase of Latin American materials be established within the next five years. This fund would be used to supplement regularly allocated monies.

2. That an organizing committee be formed, consisting of Institute, Library, University, local and state members, to develop ways of implementing this goal.

3. That a Research Committee of the Faculty Concilium be established.

4. That priority be given to sponsored team research.

PUBLICATIONS

Goals: Maintain an active program of dissemination of information about ongoing activities and research in UNM Latin American programs.

Maintain national visibility in scholarly publication.

The publications effort of the Latin American Institute has been well supported by the Administration and is a source of considerable prestige and visibility for UNM's Latin American programs. The dissemination of information through the LAI Notes has served a useful function in bringing attention to program activities on campus, in the community, and nationally. The LAI Research Publication Series is mailed to more than 500 institutions internationally, and has resulted in an active exchange of papers and working documents with such institutions, serving to call attention to research activities of UNM program participants.

The publication of the Hispanic American Historical Review and the Latin American Research Review at UNM has considerably enhanced the prestige and visibility of the UNM Latin American program, and probably been a significant factor in adding credibility to funding proposals. Both these journals are scheduled to leave the UNM campus (in 1985 and 1987, respectively) during the coming five years, and some effort should be made to replace them with a publication of similar prestige or to investigate extending their stay at UNM. The latter option depends upon the availability of funding support and staffing, as well as on action by professional associations. If both journals move, one option to be considered would be to establish a refereed Latin American studies journal as a permanent activity of the LAI.

The Latin American publications of the UNM Press are also a source of considerable institutional visibility, and the Press should be encouraged in every way to continue this important contribution. When possible, the LAI should seek to incorporate subsidies to the Press in funding proposals for conferences and sponsored research.

Recommendations for Publications

1. Continue publication of the Notes and Research Papers.

2. Seek a continued scholarly journal presence at UNM in the field of Latin American studies.

3. Assist the UNM Press in maintaining its publication of Latin American titles.

STATE AND LOCAL OUTREACH

Goals: To stimulate state and local knowledge of and interest in Latin America.

To stimulate the teaching of Latin American topics in the primary and secondary schools.

To assist local government and private interests in their relations with Latin American entities.

To generate support for UNM's Latin American programs from state and local groups.

Outreach activities are a valuable adjunct to academic programs that generate considerable community support, adds to the population served, and increases the pool of future students for the undergraduate and graduate Latin American degree programs. Such activities are mandated by Title VI of the Higher Education Act, and assist in developing public support for enlightened foreign policies. Outreach activities also serve as a contribution towards enhancing the Hispanic heritage of New Mexico, a matter of interest to a substantial proportion of the population.

The outreach programs of the LAI have been among the more innovative activities undertaken, attracting considerable notice from funders and other area center programs. In the 1981-82 academic year the LAI inaugurated the Teacher-Fellow Program in International Understanding, with funding from the International Understanding Program of the U.S. Department of Education and strong support from the New Mexico State Board of Education staff. Sixty-three New Mexico school teachers were enrolled in the program, each taking six hours of graduate-level courses on Latin America, for use in developing a curriculum project dealing with Latin America. The program was successful beyond expectations. The participants were enthusiastic and organized a special conference at the close of the program at which curriculum projects were presented for discussion. The success of this program has led to plans for continuation and the adoption of a similar program at NMSU.

In addition, school teachers are served through a summer course on the teaching of Latin American studies, in which sixteen teachers participated during the summer of 1982. Also in the summers, UNM and NMSU have sponsored a two-day symposium on the teaching of Latin American studies in the schools, held in Las Cruces during the summer of 1982 with an attendance of forty participants from throughout the state. These activities have created a constituency in the state schools of teachers with Latin American interests who look to the LAI for support and assistance.

The LAI has also attempted to reach a larger public through its strong support for the Latin American related exhibitions of the Maxwell Museum of Anthropology, in particular the exhibits of Juan Quezada and Casa Grande Pottery, Yer Daileghe, Kuna Women's Art, and the Fiestas of San Juan Nuevo. Each of these exhibitions provided the occasion for substantial exchanges with Latin America, for the sharing of local and Latin American artistic traditions, and for community education. For example, the San Juan Nuevo exhibition was used as the centerpiece of the UNM-NMSU

Latin American High School Day, for which some fifty students from Albuquerque and Las Cruces high schools were brought to the Maxwell Museum for a day of presentations and tours.

The success of Spanish and Portuguese tutorials for UNM faculty led to the initiation in 1981-82 of a special language outreach program for the surrounding community. Courses were offered and publicized by the local newspapers, TV and radio stations, including Spanish for Businessmen, Spanish for Lawyers, Spanish for Medical Personnel, and Spanish for Law Enforcement Personnel. Enrollments have been high and the community response favorable, and this program has been continued subsequently.

The LAI has developed programs for the mass media, including a major documentary for Public Television entitled "The Borderlands" which was funded by the New Mexico Humanities Council and distributed nationwide. The LAI and the Center for Latin American Studies at NMSU cooperated in the preparation of a television program on the Central American situation, broadcast in Las Cruces. The LAI has also developed good working relationships with community groups that have Latin American interests, such as the Partners of the Americas and other members of the Albuquerque Coordinating Council for International Friendship, the Pan American Round Tables, and the Albuquerque Coalition for Human Rights in Latin America. Contacts between officials of public and private sector organizations and UNM faculty members have been facilitated by the LAI upon request of such officials.

Lack of staff time and the need to meet other program priorities have thus far prevented the establishment of a community support group for the LAI, but the base for such an organization has been created by outreach activities. The founding of such an organization is a logical next step that might help provide community assistance and community advice for LAI programs. Meaningful avenues of participation will be required for such a program to be successful.

Recommendations for State and Local Outreach

1. Continue with outreach programs of proven success, such as the Teacher-Fellow Program, the summer symposia, and language outreach.

2. Establish a community support organization to be known as the "Associates of the Latin American Institute."

NATIONAL POLICY CONTRIBUTION

Goals: To be recognized as a leading institution in the formation of national policy in the international education field.

To successfully make the case for national investment in international education.

To facilitate linkages between UNM faculty and policy makers with needs for information on Latin America.

The ninety federally-funded Title VI "National Resource Centers for Foreign Language and Area Studies" are the leading institutions in the effort to enhance U.S. international education. Funding for the efforts of these centers and relating Title VI programs remains well below the levels maintained under the Eisenhower Administration, which initiated the National Defense Education Act, later replaced by the Higher Education Act. Due in part to the important role played by the New Mexico congressional delegation, the LAI has been able to play a useful role in persuading the Congress to continue the federal investment in international education, without which foreign language and area studies at U.S. universities would suffer severely.

The case for international education must be made by those institutions and experts with the most commitment and knowledge. It is clear that in a period of budget austerity even worthwhile programs in the national interest will be discontinued unless they are repeatedly justified. For a variety of reasons, including the turnover of center directors nationally, there is an absence of experienced leadership on behalf of international education. UNM efforts to meet this need have met with appreciation from other centers and from officials of the American Council of Education and the National Association of State Universities and Land Grant Colleges. An active role in defending international education also serves to enhance the image of the LAI as an institution that is knowledgeable and influential.

The LAI may also have a useful role to play in facilitating expert testimony and consulting services by UNM faculty on behalf of Congressional committees and U.S. government officials. Direct participation of this type in policy formation tends to be dominated by faculty from prestigious institutions from the eastern seaboard. However, as the reputation of the UNM Latin American program grows, contacts of this type are likely to increase, and can be facilitated through congressional contacts developed by LAI staff.

The LAI has also arranged for briefings of New Mexico congressional delegation members and their staffs by UNM faculty specialists on Latin America. These briefings have been well received by those involved, and offer a useful means of serving the needs of policy makers for information on Latin America. It is recommended that the LAI continue to arrange such informational briefings upon request by members of the U.S. Congress.

Recommendations for National Policy Contribution

1. Continued monitoring of developments in the International Education field, and frequent communication with relevant Washington officials.

2. Communicating with other foreign area centers on policy issues that affect the international education effort.

3. Arranging for informational briefings of members of the U.S. Congress and their staffs by UNM faculty specialists on Latin America.

SPECIAL PROJECTS

Goals: To continue an active series of special projects that enhance the

overall Latin American program.

To maintain a steady flow of external funding that contributes to staffing, university overhead costs, faculty release time, and the support of students.

While special projects do not in themselves strengthen the core academic curriculum, they contribute greatly to the overall vitality of an area studies program, create higher national and local visibility, provide useful ancillary funding, support staff and students, and respond to needs perceived by various constituencies. A good part of the dynamism of the LAI in its first five years of operation has stemmed from the success of attracting funding for special projects and conferences.

Examples of special projects that have received external funding over the last five years are the Summer Institute on Brazil (with funding from NEH), the Indian Leaders Conference (ICA), Teacher-Fellow Program (USOIE), Group Project in Ecuador (Fulbright-Hays 102), Documentary Film on Undocumented Migration (Humanities Council), Seminar on the Problem of the Undocumented Worker (CSA), and the Colonialism and Its Legacy Undergraduate International Studies Program (USOIE). Examples of pending projects include the Research Conference on the Jewish Experience in Latin America, the Ninth Inter-American Indian Congress, the Mexico Nine: A Suite of Lithographs, and 1985 Annual Meetings of the Latin American Studies Association.

These projects have increasingly been generated in response to initiatives from faculty members, and through their provision of release funds and other financial contributions, become an important means through which the LAI contributes to academic units, provides services to the Latin American studies community, and builds bridges to other units and programs on campus. The willingness of the Institute staff to assist other units and faculty members to obtain funding on behalf of their initiatives seems to have been well received and appears to have resulted in an increasing flow of ideas for special projects. While not all suggestions have been acted upon, nor all proposals funded, the role of the LAI in helping to translate ideas into funded projects should continue to be an important part of its mission. The limiting factor in special project development is staff time for proposal development and project implementation, and this limit has been reached with current staffing. Since the founding of the LAI, approximately 40 proposals have been formally submitted to funding agencies, for an average of about 10 proposals per year. An expansion of this rate of submission will require the addition of a full-time program officer to the LAI staff.

Recommendations for Special Projects

1. Continued receptivity to proposal concepts generated by program faculty, and monitoring of funding opportunities nationally.

2. Maintenance of current rate of special project initiatives, pending an improvement of staffing.

3. The addition of a full-time program officer to the LAI staff, recovering a position lost at the end of the 1981-82 fiscal year, to allow an increase in special projects development.

INTER-INSTITUTIONAL COOPERATION

Goals: Increased interaction and cooperation with institutions in Latin America.

Increased cooperation with comparable Latin American studies programs at U.S. universities.

Increased cooperation with agencies and institutions that have specialized Latin American interests.

The development of ties with sister institutions in Latin America and the U.S., and with institutions with complementary interests in Latin America, can add considerably to the UNM Latin American program. Such relationships can increase the flow of Latin American visitors to UNM and enhance research and scholarly contacts for UNM faculty members in Latin America. Good relationships with Latin American studies programs at other U.S. universities are important for student recruitment, the success of peer-reviewed funding proposals, and initiation of cooperative ventures. Efforts undertaken with specialized agencies and institutions with Latin American interest can be an important source of support for special projects and technical assistance efforts.

With the State of New Mexico, the close working relationship developed with the Center for Latin American Studies at NMSU since the founding of the LAI has been highly beneficial to both parties. This played a direct role in obtaining Title VI designation as a funded "National Resource Center." The cooperation between the two institutions has also strengthened both programs politically at the state and national levels. Joint activities undertaken by the two programs, particularly in the outreach field, have been greatly enhanced by sharing contacts and resources.

The active exchanges with the National Autonomous University of Mexico (UNAM) under the convenio between that institution and UNM has been another source of considerable program activity and institutional benefit, involving exchanges of teaching faculty, joint conferences and symposia, consulting visits, and graduate studies by UNAM personnel at UNM. The exchanges with the University of São Paulo, initiated by the Office of International Programs and Services, have also begun to increase in frequency, and appear to bear the promise of further expansion with support from the United States Information Agency. Relationships with institutions in Colombia and Venezuela also seem promising and continue to be explored by interested faculty.

Cooperation with other U.S. Latin American studies programs has been enhanced in recent years, particularly in the cases of the University of Arizona, the University of Texas-Austin, Tulane, and UCLA. UNM has received lecturers from the Distinguished Latin American Lecturer Program of the University of Arizona, and has received support for several proposals from directors of the above-mentioned programs. It appears likely that Tulane, Texas, and Arizona might join with UNM in a consortium arrangement that might facilitate the reopening of the Andean Study and Research Center. These and other Latin American studies programs have assisted in efforts to save federal funding for International Education.

The cooperation between the LAI and the Institute of American Indian

Arts, recently formalized in a memorandum of understanding between these two institutes, was a key factor in obtaining funding for the Indian Leaders Conference, which dealt with international issues affecting indigenous populations in the Americas. The good relationship between the LAI and the Instituto Indigenista Interamericano in Mexico City played an important role in the designation of the LAI as a host institution for the Ninth Inter-American Indian Congress. Relationships that have been established with agencies in Washington, such as the Inter-American Foundation, the Latin American Program of the Woodrow Wilson International Center, and the Council on Hemispheric Affairs, have been useful in placing student interns, obtaining fellowship support, and staying in touch with Latin American-related developments in Washington.

Recommendations for Inter-Institutional Cooperation

1. Continue to place primary emphasis on the UNAM exchanges, while maintaining subsidiary relationships with other Mexican institutions such as the Instituto Tecnológico de Chihuahua and the Colegio de Michoacán.

2. Continue cooperation with U.S. Latin American studies programs on matters of mutual interest and benefit.

3. Continue contacts with specialized institutions, in particular with the Institute of American Indian Arts.

4. Seek external funding to augment the exchange with the University of São Paulo.

PROGRAM AMBIENCE

Goals: To maintain a stimulating and positive atmosphere that encourages student and faculty involvement in program activities.

To enhance the identity of the Faculty Concilium on Latin America and the Student Organization for Latin American Studies (SOLAS).

The establishment of a stimulating atmosphere in which faculty and student enthusiasm for program activities, as well as a sense of shared community, is an important goal of any academic enterprise. The existence of a group of persons with common area studies concerns does not in itself guarantee that such an atmosphere will develop. Opportunities for interaction must be created, rewards for participation should exist, and sense of common identity encouraged.

Recent evaluations have established that UNM's Latin American programs have generated a good deal of pride and support from faculty and students. The LAI building has quite properly become a focal point for students in Latin American programs, and for faculty active in program activities, particularly those involved in committees of the Faculty Concilium or subcommittees of the Policy Committee of the LAI. The student organization, SOLAS, remains active, and attendance at colloquia and special events has been adequate. Nevertheless, only small proportions of the Latin Americanist

faculty are regularly involved in program activities, as opposed to their teaching responsibilities, and room for improvement exists.

The size of the UNM community, the dispersed nature of the Albuquerque urban area, and the decline in faculty salaries over time have all been factors in reducing over time the extent of social interaction among Latin American program participants, other than that which takes place during and after formal program events or meetings. Those social events that do occur, such as the cocktail offered by President Perovich for the program evaluators, or receptions given by the Director of the LAI, stand out as rare occasions. Formal luncheons initiated at the Student Union during the previous year in conjunction with presentations began with good attendance, but were abandoned as fewer and fewer persons proved willing to make advance reservations. The Program Committee of the Faculty Concilium has recently proposed renting the Faculty Club for a reception, and another proposal mentioned has been an informal weekly luncheon for Latin Americanists.

Continued attention and imagination should be devoted to seeking formats for informal interaction and social interchange among faculty, with additional attention given to occasions that bring together faculty and students. The Program Committee of the Concilium should be the focal point to which ideas and efforts relating to this effort should be addressed. Formal talks, lectures, and program events should be scheduled regularly, but not with such frequency as to overtax the time of participants.

Another suggestion is that an effort be made to promote the formation of subgroupings within the Faculty Concilium, organized around shared country or regional interests. Numbers appear sufficient to allow for the identification of faculty subgroups interested in Mexico, in Brazil, and in the Andean region. The Mexicanists, Brazilianists, and Andeanists could be encouraged to establish a sense of collective identity within the Concilium by the holding of social events, by meetings called to consider cooperation in the preparation of joint research or teaching proposals, by subgroup sponsorship of extra-curricular program activities, or by the consideration of establishing optional concentrations within the framework of Latin American degree programs. A first step in this direction might be for the LAI staff to prepare rosters of faculty with expertise on the three areas mentioned above.

Recommendations for Program Ambience

1. Careful scheduling of formal program events, and avoidance of overscheduling.

2. Establishment of an informal weekly luncheon under the auspices of the President of the Faculty Concilium.

3. Identification of faculty members with shared expertise on specific countries or regions (e.g., Mexico, Brazil, and the Andean region) for the purpose of encouraging activities focused on such areas.

LAI STAFFING

Goals: To permit the optimal use of program resources in carrying out all elements of the five-year plan for the LAI.

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To maximize the acquisition of external funds in support of Latin American programs at UNM.

It is apparent that the level of LAI staffing currently supported by state funds will not permit expansion of activities in support of Latin American programs and fundraising. The overall Institute budget is approximately one-third to one-fourth of the budget of comparable institutes or centers at competing institutions such as the University of Texas at Austin and UCLA. Restrictions in available funding have in fact required the separation of two Ph.D.-level professional staff members from the LAI staff over the last two years.

In order to increase the number of external funding proposals, and the ability to implement and administer fund projects, it is recommended that the LAI budget be increased sufficiently to add at least one full-time professional member to the LAI staff, a recommendation also noted earlier in this document. Administration of LAI activities also depends heavily on the use of non-professional student and workstudy employees, and it is recommended that funds available in these categories be expanded. The success with which the LAI has obtained outside support in the first five years of its existence, and the contacts developed with funding agencies up to the present, suggests that the marginal utility of additional staff support for LAI operation will be high and well worth the additional investment of state funds.

Recommendations for LAI Staff

1. That the LAI budget be augmented sufficiently to add a full-time professional staff member.

2. That the non-professional staff of the LAI be augmented by increased support in the base support budget of the LAI.

Revisions of

A FIVE-YEAR PLAN FOR THE UNM LATIN AMERICAN INSTITUTE

STUDENT RECRUITMENT (p. 3)

Footnote number 1 is added to read: See Appendix A for a listing of the degree programs in 1983-84. (This footnote is placed following the first sentence of the first paragraph.) Appendix A should read:

DEGREE PROGRAMS WITH LATIN AMERICAN OPTIONS

and a list of the 26 degree programs or concentrations will follow.

Recommendation 1 is changed to read: That the number of assistantships designated for support of the M.A. in Latin American Studies program be at a ratio of one assistantship for every five graduate students, and that funding for such assistantships be provided in the Latin American Institute budget.

Renumbering of recommendations 2 through 4 to 3 through 5.

A new recommendation 2 is inserted: That assistantship or fellowship support be designated for interdisciplinary Ph.D. programs in Latin American Studies.

STUDY ABROAD (p. 5)

Recommendation 6 is renumbered to 7

A new recommendation 6 is inserted: That an alternative site be considered in case of failure to fund the Andean Center

RESEARCH (p. 6)

The first goal is changed to read: To seek out and secure creative sources of funding in order to establish the Latin American collection of Zimmerman Library as one of the nation's leading research collections and services.

A recommendation 5 is added to read: That an appropriate library faculty be maintained to provide needed services.

SPECIAL PROJECTS (p. 11)

A new second paragraph is inserted: A possible focus for fund-raising would be a biennial research conference. The conference would be for purposes of influencing national policy, for stimulating faculty research, and for drawing attention to our programs. Outstanding scholars would be invited to the conferences and position papers would be developed.

Renumbering of recommendations 2 and 3 to 3 and 4.

A new recommendation 2 is inserted: That funding be sought for a continuing biennial research conference.

INTER-INSTITUTIONAL COOPERATION (p. 12)

Following sentence added to the end of paragraph 4: Another avenue of cooperation is the joint sponsorship of lecturers.

Recommendation 1 is changed to read: Continue to place primary emphasis on the UNAM exchanges, while maintaining subsidiary relationships with other Latin American institutions.

As approved by the LAI Policy Committee on December 16, 1983

Institute of American Indian Arts
College of Santa Fe, St. Michael's Drive
Santa Fe, NM 87501-9990

Latin American Institute
University of New Mexico
Albuquerque, NM 87131

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MEMORANDUM OF UNDERSTANDING

Given the successful cooperation between the Institute of American Indian Arts and the Latin American Institute of the University of New Mexico in organizing and conducting the American Indian International Indian Congress, and given our joint recognition of shared interest in furthering the dissemination and exchange of information, experiences, cultural materials between Indian populations of North, Central, and South America, particularly in areas related to the artistic heritage of Native populations, the Institute of American Indian Arts and the Latin American Institute hereby agree to further cooperation in fostering programs of common mutual interest.

This memorandum of understanding contemplates cooperation in shared ventures such as the following:

1) Seeking funding for joint conferences, symposia, or programs dealing with Inter-American Indian art and the elements of the cultures of native populations.

2) Furthering exchanges between the Americas that will promote the dissemination and exchange of information, experiences, and cultural materials related to the heritage of native populations.

3) Informing the counterpart institute of ongoing programs, projects, and events that might be of benefit to the faculty and students of both the Institute of American Indian Art and the Latin American Institute.

4) Sharing information concerning possible financial assistance to students or faculty members of either institution who wish to conduct research on inter-American topics related to the culture of indigenous populations.

5) Facilitating the participation of Latin American scholars and students in the programs of both institutions.

6) Providing opportunities for faculty development in fields relating to Latin American indigenous populations and Native American art and culture.

7) Fostering the development of inter-institutional linkages between the Institute of American Indian Art and the University of New Mexico, as might be desirable, appropriate, and of mutual benefit.

Jon C. Wade, President
Institute of American Indian Arts

Gilbert W. Merkx, Director
Latin American Insitute

ANNUAL REPORT

of the

LATIN AMERICAN INSTITUTE

1 July 1983 - 30 June 1984

Gilbert W Merkx, Director

Significant Developments

The cumulative total of outside funding obtained in support of LAI programs since the beginning of 1980 has passed the million dollar mark; in December 1983 the total was $1,170,000. These funds were obtained from twenty-three successful grant or contract proposals submitted to a variety of private foundations and United States government agencies.

The LAI was notified by the Office of International Education Programs of the US Department of Education of continued funding as a National Resource Center for Latin American Language and Area Studies. Funding for the 1983-84 academic year, shared with the Center for Latin American Studies (CLAS), the LAI's consortium partner at New Mexico State University (NMSU), totaled $149,200. Included in the award were Foreign Language and Area Fellowships for UNM and NMSU students. The New Mexico consortium remains one of ten comprehensive Latin American centers in the nation to be supported under Title VI of the Higher Education Act.

In summer 1983 the LAI conducted a Summer Institute on Brazil, funded with a $105,000 grant from the National Endowment for the Humanities (NEH), in which twenty college and university faculty from around the country were given intensive Portuguese language training and courses in Brazilian culture and society. Further training and field experience are being given to ten participants being sent to Brazil in summer 1984 under the auspices of a Fulbright Group Project Abroad grant. A second Summer Institute on Brazil is planned for 1986, with support from the NEH expected.

The LAI has been chosen by the governing board of PROFMEX, an association of United States universities concerned with United States-Mexico border research, as host for the Fourth Bilateral Symposium of United States and Mexican Universities, October 1985 in Santa Fe. PROFMEX is a consortium with ANUIES, a counterpart group of Mexican universities. The two groups formed to advance joint research on United States-Mexican issues. The Santa Fe conference will focus on the theme One Border, Two Nations: Policy Implications and Policy Resolution.

The National Endowment for the Humanities (NEH) has awarded the LAI $158,000 in support of a three-year program to develop beginning and intermediate Brazilian Portuguese language training materials, including filmed vignettes providing models of contemporary Brazilian life. The project will also be supported by the Roberto Marinho Foundation of Rio de Janeiro and TV Globo, Brazil's largest network, with the cooperation

of Georgetown University. Project director for the program is Jon Tolman, LAI associate director for academic programs.

Political leaders from Argentina, Bolivia, Brazil, Colombia, the Dominican Republic, Ecuador, Guatemala, Mexico, Paraguay, Peru, Tobago, Trinidad, Uruguay, and Venezuela visited New Mexico from 27 May-1 June. Their program here was arranged and coordinated by the LAI in cooperation with the International Visitors Program of the United States Information Agency (USIA). The group toured Albuquerque, Santa Fe, Taos, and Taos Pueblo, met with local and state officials, including Mayor Harry Kinney and Governor Toney Anaya, and talked with representatives of Indian communities and the Archbishopric of Santa Fe. Presentations and discussions were held at the LAI with members of the Faculty Concilium. A highlight of the visit was an impromptu meeting arranged by LAI personnel with presidential candidate Jesse Jackson in Santa Fe.

The LAI and the Latin American Jewish Studies Association (LAJSA) cosponsored a research conference 11-14 March on the Jewish Experience in Latin America, featuring the participation of scholars fromthe United States, Mexico, Brazil, Argentina, Peru, and Israel. Conference papers will be published by the UNM Press. The conference was made possible by assistance from the National Endowment for the Humanities, the Mellon Foundation, the American Jewish Committee, the World Jewish Congress, and UNM. The Jewish Community Council of Albuquerque provided hospitality for participants and sponsored an open forum in conjunction

with the conference. The LAJSA held its annual meeting the day before the research conference.

Significant Plans and Recommendations for the Near Future

The LAI, which is charged with responsibility for implementing and coordinating the convenio with the Universidad Nacional Autonoma de Mexico (UNAM), saw the fruits of its efforts multiplied again during 1983-84 as a variety of speakers from UNAM spoke on campus and discussed research projects with their UNM counterparts.

There were substantive developments as well in efforts to expand the usefulness of the convenio. The LAI has submitted a proposal to the United States Information Agency (USIA) for support under the higher education linkage program, which if funded will permit a major increase in exchanges between UNM and UNAM. The application has the support of both UNM and UNAM authorities, and includes travel expenses, cost-of-living adjustments, and salary supplements needed for both short-term and semester-long faculty exchanges betwen the two institutions.

In addition, the Committee for Mexican Exchanges, chaired by Associate Provost Alex Sanchez, supported development of a summer session for UNM students, in conjunction with the UNAM Colegio para Extranjeros. A limited number of tuition fellowships were available to the fifteen students taking classes offered by the colegio, 25 June-3 August. Guillermina Engelbrecht, UNM associate professor of curriculum and instruction, was field director, and Pia Wood was the graduate student

project assistant. They reported a generally successful session, and the LAI plans to develop the UNAM summer session as a regular part of its programs.

For sixteen years, ending in 1980, UNM ran a prestigious and high-quality study-abroad program in Quito, Ecuador, called the Andean Study and Research Center. Increasing costs and declining enrollments led to the closure of the center in 1980. Since then, alternative study-abroad options, described in this and earlier annual reports, have been used to provide overseas experience for UNM students. In the views of both faculty and students, these alternative experiences, although valuable, have been less useful than the carefully controlled curriculum available at the former Andean center.

With the support of the UNM Provost McAllister Hull and Regent Ann Jourdan, whose daughter is an alumna of the Quito program, extensive discussions have been held to plan for a reopening of the Andean center. The project has been made more feasible by a new policy of the state Board of Educational Finance, which for the first time will allow students in a reopened Andean center to be counted in the state enrollment formula, making the program self-sustaining after its first year of operation.

Simultaneously, discussions have taken place with Jaime Duran Barba, director of the Facultad Latinoamericano de Ciencias Sociales, Sede Quito (FLACSO-Quito), which have resulted in a tentative agreement between FLACSO-Quito and UNM for the reopened Andean center to be housed

in FLACSO facilities and operated as a special FLACSO program for undergraduates. The program would be directed by former Andean center director Nick D Mills, a UNM PhD in Ibero-American studies.

Appointments to and Separations from Staff

The LAI staff remained stable during 1983-84. Gilbert W Merkx and Theo R Crevenna remained as director and deputy director respectively. Jon M Tolman continued to serve as associate director for academic programs.

Robert Lenberg (Anderson School of Management) was appointed associate director for international management programs. Vickie Madrid Nelson became a program specialist, and Carol Robles continued as outreach coordinator. Jimmy C Diecker continued as staff writer, and Joan Swanson and Christine Lopez as staff secretaries. A half-time staff secretary position (Joan Swanson also is half time) was filled by Martha Lee.

Publications

The exceptional quality of the LAI's Research Paper Series was maintained during 1983-84. Three were published during the year, bringing the series total to sixteen since 1979:

MORRIS, Nancy E. "Canto porque es necesario cantar: The New Song Movement in Chile, 1973-1983"

SABLOFF, Jeremy A, et al. "Ancient Maya Settlement Patterns at the Site of Sayil, Puuc Region, Yucatan, Mexico: Initial Reconnaissance (1983)"

SANTLEY, Robert S. "Final Field Report of the Matacapan

Archaeological Project: The 1982 Season"

The LAI Notes also continued to serve as a bulletin board of activities on campus for Latin Americanists, a document of record for LAI activities, and a source of information on conferences, funding and employment opportunities, and other items of general interest.

The Hispanic American Historical Review (HAHR) has completed its fourth year as part of the LAI operation. Founded in 1914, the HAHR is the preeminent historical journal dealing with the region. John J Johnson, formerly of Stanford University, continues as managing editor. The second major journal of the LAI is the Latin American Research Review (LARR), the official journal of the Latin American Studies Association, with a larger circulation than any other scholarly periodical dealing with Latin America. Manuscript selection for issues commencing in 1983 began in July 1981 under a team of editors headed by Gilbert W Merkx. A third publication of the LAI is the Andean Studies Newsletter, edited by Garland Bills of the linguistics department.

Outside Professional Activities of Staff Members

Theo R Crevenna, LAI deputy director, was named chair of the Local Arrangements Committee for the 1985 Latin American Studies Association (LASA) meetings by the LASA executive council. Other members of the committee are Gilbert W Merkx, LAI director, Peter Gregory (economics), and Louis R Sadler, director of the Center for Latin American Studies (CLAS) at New Mexico State University (NMSU).

John J Johnson, managing editor of the Hispanic American Historical Review, was selected as the first recipient of the Kalman Silvert LASA President's Prize, established by LASA to "honor eminent members of our profession who have made a lifetime advancement of the profession generally." Mr Johnson received the award at the LASA meetings in Mexico City on 30 September.

More than twenty members of the Faculty Concilium on Latin America attended the Mexico City meetings. In addition to Mr Johnson, they included Mr Merkx, Mr Crevenna, Sharon S Kellum, managing editor of the Latin American Research Review; M Karen Bracken, LAI project assistant; Gordon Odell, LARR subscriptions manager; and Rosa B Herrington, LARR secretary.

Outside-sponsored Research

The Rockefeller Foundation is providing $50,000 over a two-year period in support of a joint project of the Tamarind Institute and the LAI that will bring nine outstanding Mexican artists to UNM to prepare lithographs. The project will celebrate the 25th anniversary of the Tamarind Institute, contribute to knowledge in the United States of contemporary Mexican art, and, through talks and workshops by the artists, enrich cultural programs at UNM. The suite of lithographs resulting from the project will be exhibited at major museums in the United States and Mexico. Project codirectors are Clinton Adams, Tamarind Institute director, and Gilbert W Merkx, LAI director.

Under the provisions of the Fulbright-Hays Act, the LAI received $50,000 from the US Department of Education (DE), to send ten college and university faculty from around the country to Brazil during summer 1984 for field research, and for language and curriculum development studies. Their activities are part of an LAI effort to develop Brazilian studies in the United States. Participants will be graduates of the LAI's 1983 Summer Institute on Brazil, funded by the National Endowment for the Humanities (NEH).

Other Activities

Together with the Department of Art and Art History, and the Department of Anthropology, the LAI cosponsored the annual meeting of the American Society for Ethnohistory, 3-5 November at the Regent Hotel and the Albuquerque Convention Center.

More than 150 persons packed the UNM Student Union South Ballroom on 22 November to attend a panel on the United States invasion of Grenada, cosponsored by the Student Organization for Latin American Studies (SOLAS) and the Campus Committee for Human Rights in Latin America. Participants included Theo R Crevenna, LAI deputy director; and Professor Emeritus and former LAI Director Marshall R Nason. The panel chair was M Karen Bracken, SOLAS president and LAI project assistant.

The Peace Corps contract through the LAI was renewed in the amount of $9,982 for 1983-84. As in past years, the quota set was exceeded, and the office here remains one of the Peace Corps most successful operations.

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US Senator Alan Cranston (D-Calif.) took advantage of the LAI's coordinating functions to request an official advisement session to discuss current events in Central and South America. Gilbert W Merkx, LAI director, was called by Cranston's coordinator in Santa Fe to set up a meeting with knowledgeable faculty and other people from the area. The meeting, in late August, came following Cranston's return from a visit to Central America, where he met with leaders of the Contadora group on their proposals for peace in the region. Cranston was interested in gathering more information about those countries from LAI staff and members of the faculty concilium. The meeting was attended by about fifteeen persons.

An important stimulus to the overall Latin American studies program at UNM has come from the highly successful Visiting Scholars program. This program, which does not involve the expenditure of any funds, makes the faculty-rank appointment of Visiting Scholar available to professionals from other institutions who wish to be in residence at UNM and to be involved with LAI programs. Visiting scholars are afforded all faculty privileges, including access to library and research facilities. For the 1983-84 academic year eleven visiting scholars were in residence for varying lengths of time:

Father Benedicto Cuesta, in charge, artistic patrimony, Archdiocese of Santa Fe;

Angela Delli Sante, professor, Center for Interdisciplinary Studies, UNAM/ACATLAN, Mexico;

Peter Brandt Evans, professor of sociology, Brown University, Providence, Rhode Island;

Allen Gerlach, executive director, New Mexico Humanities Council;

Carl Aaron Hanson, adjunct professor, Department of History, University of New Mexico;

Christine Hunefeldt, adjunct professor, Department of Anthropology, University of New Mexico;

Barbara A Kohl, assistant professor, Department of Sociology, University of New Mexico;

Bruce E Lane, director, Earthworm Films and Southwestern Folklore Center;

Victor Miranda, chief, Academic Department of Research, Escuela Superior de Guerra, Peru;

Rowena Aurora Rivera, research associated professor, Department of Modern and Classical Languages, and Researcher, Southwest Hispanic Research Institute; and

John D Wirth, director, Latin American Language and Area Center, Stanford University.

The LAI has established an active program of guest speakers, colloquia, and other events important for maintaining visibility and a sense of intellectual vitality. By augmenting Title VI funds with other sources, the LAI presented twenty-one speakers or events during fall 1983 and thirty-eight during spring 1984. Events that were particularly noteworthy included a key panel on political instability in the Andean region, the celebration of Andean Week (which included a concert of Andean music attended by more than 900 persons), and a symposium celebrating the 100th anniversary of Ortega y Gasset that focused on his influence on Latin America.

In addition, the Student Organization for Latin American Studies (SOLAS) sponsored or cosponsored some thirteen events and presentations during the fall 1983 semester and thirteen during the spring 1984 semester. A list of the LAI and SOLAS speakers and events is included in the appendix.

APPENDIX

LAI- and SOLAS-Sponsored Speakers and Events

Speakers and Events

Latin American Institute, University of New Mexico

1983-84

August, 1983	U.S. Senator Cranston (Briefing prior to a trip to Mexico and Central America)	Some 15 UNM faculty participated in the briefing on United States policy toward Mexico and Central America
September	Andean Week Activities (September 12-16)	
	Moderator: Jan Black, political science, UNM	Panel Discussion: "Political Instability in the Andean Region"
	Panelists: Nelson Valdes, sociology	"The Sendero Luminoso"
	Karen Peterson, political science	"The Drug Trade in Bolivia"
	Francine Cronshaw, history	"Democracy, Colombian Style"
	Nancy Morris, Latin American studies	"Political Protest in Chile"
	Karl Schwerin, anthropology	Slide Show "Rural/Urban Popular Culture in Southern Ecuador"
	Ian Roxborough, London School of Economics	"Labor Movements in the Economic Development Process in Latin America
	Concert Tania Libertad and Caminos	Music of the Andes
	Senator Jeff Bingaman (Briefing on Mexico prior to the inter-parliamentary meeting with Mexican legislators in Puebla)	Some 9 UNM faculty participated in the briefing
October	Richard Feinberg, Overseas Development Council	"U.S. Policy in Central America" (Part of the LAI Colloquim Series)
	Herbert Castillo, Partido Mexicano de Trabajadores	"The Mexican Economy: Solutions to the Present Crisis"
November	Jaime Litvak King, Director, Instituto de Investigaciones Antropologicas, UNAM	Series of Lectures "Whither UNAM?" "Ancient Mesoamerica: Future Directions in Archeological Research" "The Role of Computers in Archaeology
	Tom Barry, Albuquerque Resource Center	Slide Show; "Grenada-±Revolution' in the Caribbean"
	Col. Victor Miranda, Escuela Superior de Guerra, Lima	"Higher Education and the Latin American History"

	Prof. Anazilado Vasconcellos da Silva, UNM Visiting Professor of Portuguese	"The Music of Chico Buarque de Hollanda"
	Ana Gilda Leon, Venezuelan folksinger	Poetry reading
	Zoraida and Carlos Santiago, Puerto Rican musicians	"Puerto Rico - La Nueva Cancion Puertoriquena"
	Leopoldo Zea, Participant	Ortega y Gasset Centennial
	Emilio Corballido, novelista	
	George Kubler, expert on Pre-Columbian Art and Architecture	"Esthetic Recognition of Ancient American Art, 1492-1842
	Floyce Alexander, southwestern poet, and Enrique Cortazar, Mexican poet	Bilingual poetry lecture
	Ron Blood, Academic Director, Latin American Program in Education	"U.S. Public Education - A Latin American Perspective"
December, 1983	David Moctezuma, personal secretary to UNAM Sec. Raul Bejar Navarro	UNAM and Secondary Education in Mexico
January, 1984	Judy Pratt, NM State Legislator candidate U.S. Senate, and John Nichols, author of The Milagro Beanfield and The Magic Journey	"Recent Tours of Nicaragua"
February	Enylton de Sa Rego, visiting Brazilian scholar	Lectures on Brazilian culture, literature, and music
	Craig Pyes, Albuquerque Journal Investigative Reporter	"El Salvador's Right-Wing Death Squads"
	Ambassador Fernando Rondon, Director of the Andean Countries Desk, United States State Department	"The Role of the US in Promoting Democracy in the Andean Countries"
	Laurie Bretz, who worked 8 months in refugee camps under the auspices of the National Council of Churches	Slideshow and discussion of Salvadoran refugees in Honduras
	Maria Cristina Caccianali, visiting professor of Economics, University of Sao Paulo	"Contemporary Brazil - Growth and Change"
	Magda Enriquez, member of Nicaraguan Council of State	"Contemporary Nicaragua"

	Eric R. Hansen, Brazilian specialist who worked for World Bank	"Industrial Location: The Brazilian Case"
	Peter Bakewell, professor, UNM, and specialist in Colonial Latin American history	"The Political Activities of Antonio Lopez Quiroga"
March	Alexandra Close, Chief Editor of Pacific News Service, and, Franz Shirman, Department of Sociology, University of California-Berkeley, and editor of PNS	"Bringing the Central American Crisi Closer to Home: Challenge of the Media"
	Miguel Altieri, assistant entomologist, University of California-Berkeley	"Improving Traditional Agriculture i Latin America: Who Teaches Whom?"
	Film - Vidas Secas (considered to be the founding film of Cinema Novo movement)	
	Penny Lernoux, author of Cry of the People, contributor to Latin American section of Newsweek, The Atlantic, and the Nation	"In Banks We Trust"
	Research Conference on the Jewish Experience in Latin America	
	Film-Travel by Streetcar, Bunuel	
	Juan Alfaro, staff member of the Mexican American Cultural Center in San Antonio, Texas	"The Church and the Poor in Central America"
	Victor Rubio, official spokesman for the FDR	"El Salvador Today"
	Rita Eder, coordinator of permanent exhibitions at the Museo de Arte Moderno, Mexico City	"Contemporary Art in Mexico"
	Elisa Garcia Barragan, historiadora del arte mexicano, UNAM	"Las monjas coranadas durante el periodo colonial"
	Elisa Garcia Barragan, historiadora del arte mexicano, UNAM	"Nacionalismo y la academia de San Carlos"
	Lic. Casanova Alvarez, UNAM	"La escuela de Estudios Profesionale ACTLAN-UNAM
	Dr. Josue de Granados, rector, University Juarez Autonoma de Tabasco, and, Dr. Eberto Morales, rector, University de Chiapas	"Mexico-NM, Partners of the Americas Seminar"

April	Brainstorming Kissenger Report (Both UNM and NMSU Faculty and Administrators)	
	Barry Carr, La Trobe University, Melbourne, Australia	"Political Consequences of the Mexican Economy Debacle, 1982-84, the Situation of the Labor Movement"
	Barry Carr, La Trobe University, Melbourne, Australia	"Mexican Communism"
	LAI Open House	
	Karen Ruffing, UNM	"The Planning and Implementation of Maternal Child Health Services in Rural Ecuador"
	Peace Corps film--TRIUNFO (recruiting film)	
	John Wirth, Director, Latin American Studies, Stanford University	"Upgrading New World Regions: Economic and Social Integration Across National Frontiers"
	Arnoldo Ramos, US representative to FDR of El Salvador	"El Salvador Update"
	Reeve Love, UNM	"Perceived and Projected Changes"
	Monica Goubaud, UNM	"Native Systems of Medicine in Panama"
	Film - IRACEMA	
	Elisa Vargas Lugo de Bosch, Brazilian artist and professor at UNAM	"Pictorial Expression and Society in Colonial Days"
May-July, 1984	Sao Paulo, Brazil	Group projects abroad: Brazil Research Project
	Maria Chuquin, UNM	"La Literatura Oral Indigena del Ecuador"
	Ana Gilda Leon, Venezuelan folksinger of Latin American music	"Dream for Peace"

Speakers and Events

Student Organization for Latin American Studies (SOLAS), University of New Mexico

1983-84

September, 1983	Co-sponsored, LAI "Andean Week" activities. Specific SOLAS activities included:	
	Francine Cronshaw	Lunch meeting lecture on "Democracy, Columbian Style"
	Dance, with group "Caminos"	
	Sponsored panel discussion	"Political Instability in the Andean Region"
	Participated in the President's Ice Cream Social for new students at UN	
October	Sponsored film, "Chapopote" on oil and Mexico's economic crisis	
	Heberto Castillo, Mexican scholar and political activist	Cosponsored lecture on "Mexican Economy - Solutions to the Present Crisis"
	Joel Wolfe	Lunch meeting presentation on his summer internship at the Inter-American Foundation in Washington, D.C.
	Nancy Morris	Lunch meeting presentation on "The Ne Song Movement in Chile"
November	Resource Center	Sponsored slide show and talk entitle "What was Grenada?"
	Margaret Randall	Sponsored presentation about contemporary Nicaragua including film "The Pope: Pilgrim of Peace?"
	Zoraida Santiago, Puerto Rican singer	Cosponsored concert
	Cosponsored with Campus Committee for Human Rights in Latin America	Panel on U.S. invasion of Grenada
	Held week-long Nicaragua information project	Provided literature aboout Nicaragua at various campus locations
January	Andrea Heckman	Brown-bag lunch presentation and sli show on "Market Economy of Highland Ecuadorian Indians in Otavalo"
	Enylton de SaRego, Brazilian scholar	Brown-bag lunch presentation on "Brazilian Popular Music"
	Lecture and slide show	Presentation on refugee camps inside the Honduran borders

	Participated in press conference with the Coalition for Human Rights in Latin America	Discussed the report of the Kissenger Commission on Central America
	Cosponsored with Salt of the Earth bookstore	Presentation by New Mexico author John Nichols and State Representative Judy Pratt about their recent tours of Nicaragua
February	Karen Bracken and Nancy Morris	Student presentations and critique session: papers to be presented at the Rocky Mountain Council of Latin American Studies meeting in March
	Cosponsored two talks with Magda Enriquez, member of Nicaraguan Council of State representing the women's association AMNLAE	Discussion on contemporary Nicaragua sponsored with Las Companeras, Campus Committee for Human Rights in Latin America, and the Institute for Policy Studies
March	Maria Chuquin	Student presentation about life in highland Ecuador
	Juan Alfaro	SOLAS endorsed and assisted with the series "Faith, and the Suffering Poor: Approaches to Human Liberation"
April, 1984	Film, "Iracema"	Cosponsored award-winning Brazilian film
	Monica Goubaud	Student presentation of Mellon Summer Research, "Native Systems of Medicine in Panama"
	Karen Ruffing	Student presentation of Mellon Internship, "International Health Care Organizations in Latin America"
	Participated in LAI open house	

ANNUAL REPORT

of the

LATIN AMERICAN INSTITUTE

1 July 1984 - 30 June 1985

Gilbert W Merkx, Director

Significant Developments

The cumulative total of grants and contracts awarded to the Latin American Institute (LAI) since operations began in 1979 reached more than $2 million as the spring 1985 semester got underway. Forty-five grants and contracts contributed to the total, some $2,277,024.

Argentine President Raul Alfonsin received an honorary juris doctor degree 23 March at a convocation in Woodward Hall. It was an occasion of great dignity and of opportunity to express support for this newly elected leader, who carries a courageous message of freedom for his people. Alfonsin's half-day stop in Albuquerque marked the end of a week-long visit to the United States--his first as president of Argentina--during which he met with President Reagan and addressed a joint session of Congress.

UNM President Farer, who invited Alfonsin to the university, was a member of the Inter-American Commission on Human Rights in 1979 when the commission found Argentina's military government guilty of human rights violations, including torture and murder. Farer characterized Alfonsin

during the ceremony as ranking "among the two or three most morally elevated and politically astute heads of state to have emerged in Latin America during the past four decades." For his part, Alfonsin related that while "living in the terror of authoritarian rule, the names of Tom Farer and his colleagues on the Inter-American Commission on Human Rights meant great hope for the democratic portions of our country."

Preparing for Alfonsin's visit was without doubt one of the most satisfying--albeit one of the more intense--events with which the LAI has been involved. Overall coordination of the event was shared by University Secretary Anne J Brown, LAI Director Gilbert W Merkx, and Deputy Director Theo R Crevenna; they worked not only with state, local, and university participants, but also with US Department of State personnel, the Secret Service, and with the large Argentine contingent accompanying the president.

The Argentine president arrived at Kirtland Air Force Base in the morning shortly before the convocation, which was attended by some 900 persons. A luncheon followed at the Albuquerque Hilton Inn, including some guests who attended the convocation and some new ones--about 225 persons. The president departed that same afternoon, again from Kirtland. Not only did the entire day proceed smoothly, but the consensus of unsolicited remarks by Argentine and US Department of State personnel was that the program here had gone more smoothly and with better ambience than had any of the other stops made by Alfonsin in the United States.

The LAI was successful in serving as host for the XII International Congress of the Latin American Studies Association (LASA). More than 1,200 specialists from around the world attended the LASA 18-20 April congress. The LAI served as the host institution, and Theo R Crevenna, LAI deputy director, was chair of the Local Arrangements Committee, which also included Peter Gregory (economics), Gilbert W Merkx, LAI director, Ray Sadler, director of the Center for Latin American Studies (CLAS) at New Mexico State University (NMSU), and Deirdre Kitchen, LAI project assistant. More than 160 panels and seessions were scheduled for the congress, with as many as seventeen sessions running concurrently. UNM President Farer delivered the plenary address to the congress, on the subject of human rights and United States policy in Latin America.

The LAI, in consortium with CLAS at NMSU, has again been designated as a National Resource Center for Latin American Language and Area Studies, for a three-year period beginning with the 1985-86 academic year. Funding for center activities and fellowships for the first year of the cycle will be $191,750, with $575,250 awarded for the three-year period. Twenty major universities and consortia applied for this funding, under Title VI of the Higher Education Act, and ten were funded. The peer review panel ranked the UNM-NMSU consortium in the top three nationally, along with the University of Chicago-University of Illinois consortium and the University of Wisconsin system-wide consortium.

Significant Plans and Recommendations for the Near Future

The LAI will sponsor its second Summer Institute on Brazil in 1986 in Santa Fe with a $119,000 grant from the National Endowment for the

Humanities (NEH). The NEH also sponsored the LAI's first summer institute in 1983 in Taos. The only one of its kind in the United States, the Summer Institute on Brazil is a five-week, intensive course in Brazilian Portuguese and Brazilian sociocultural studies. It will again be taught by UNM faculty, with visiting scholars expected from Stanford and Georgetown universities and others throughout the country. Brazilian studies have been much neglected in American higher education, an untenable situation given Brazil's importance in the Western Hemisphere. It is the intention of the LAI to develop a national center for Brazilian research and studies.

The LAI also followed up on the 1983 summer institute by publishing a Curriculum Study Guide Series on Brazilian Studies, now being distributed nationally. A list of the curriculum guides is included in the appendix. In view of the widespread recognition brought to UNM by the success of the last summer institute, it is hoped that administrative support for the upcoming one will be equally strong, as the summer institute show promise of becoming a permanent part of the university's growing showcase of Latin American programs.

Appointments to and Separations from Staff

There were no major staff changes at the LAI during 1984-85: Gilbert W Merkx and Theo R Crevenna continued as director and deputy director respectively; Jon M Tolman and Robert Lenberg continued as associate directors for academic programs and international business management programs respectively.

Vickie Madrid Nelson was promoted to full-time program specialist, and

Joan Swanson was advanced to the important post of student advisor. Maria R Kelly continued as outreach programs coordinator, and Jimmy C Diecker continued as staff writer. Christine Lopez continued as staff secretary, and was joined by Heart Hahn, who was hired following the resignation of Martha Lee.

Project and student assistants for 1984-85 included Sam Adamo, Isaura Andaluz, Karen Bradley, Donna Brown, Alfonso Coello, Michael Delongchamp (Peace Corps representative), Deirdre Kitchen, Elizabeth Martin, Marjorie Martin, Nancy Morris, Marilee Schmit, Kristin Whitney, and Pia Wood.

Publications

There were several developments in the LAI and LAI-affiliated publications program during 1984-85. Of major note is an extension of the LAI's mandate to publish the Latin American Research Review (LARR). LARR was scheduled to leave UNM in mid-1986 at the end of a five-year contract with the Latin American Studies Association (LASA). The LASA executive council, however, meeting during the XII International Congress of LASA this spring in Albuquerque (see above), accepted an invitation from UNM to extend for an additional three years the contract under which LARR is edited, published, and distributed by the LAI. Gilbert W Merkx continues as editor, with associate editors Tamara Holzapfel (modern & classical languages) and Karen Remmer (political science). Sharon S Kellum continues as managing editor, along with Linda Kjeldgaard, editorial assistant, and Gordon Odell, subscription manager. With nearly 4,000 subscribers, LARR has the largest circulation of any academic journal in the Latin American studies field.

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The Hispanic American Historical Review (HAHR) ended a successful five-year term at UNM at the close of the 1984-85 academic year, under the editorship of John J Johnson, formerly of Stanford University. Part-time contracts have been continued for the copy editor and the journal secretary to ensure a smooth transition of HAHR to the University of Florida.

The LAI has been awarded a new publication in a nationwide competition jointly sponsored by the National Endowment for the Humanities (NEH) and the National Endowment for the Arts (NEA) to establish and develop a newsletter for the Columbus Quincentenary (1492-1992). The LAI received an initial grant of $60,000 to begin publication in late summer 1985 and to develop international mailing lists for the newsletter, to be known as Encuentro: A Columbus Quincentenary Newsletter. The editor will be Peter Bakewell (history). Encuentro will serve as a clearinghouse for news about grants, conferences, civic events, research projects, and other activities worldwide related to the quincentenary.

The publications subcommittee of the LAI Policy Committee accepted one manuscript for the LAI Research Paper Series during the 1984-85 academic year:

SABLOFF, Jeremy A, et al. Settlement and Community Patterns at Sayil, Yucatan, Mexico: The 1984 Season.

The LAI Notes continues to be a valuable publication of record of LAI activities and serves as well to alert faculty to research and employment opportunities, and upcoming conferences.

Outside Professional Activities of Staff Members

Three LAI staff are members of the United States organizing committee of the Ninth Inter-American Indian Congress, 28 October-1 November 1985 in Santa Fe, under the auspices of the Inter-American Indian Institute (IAII). Theo R Crevenna, deputy director, is principal advisor to the organizing committee. Karen Bracken and Pia Wood are project assistants. Created in 1940, the IAII is a specialized organization of the Organization of American States (OAS). Its headquarters are in Mexico City. Crevenna worked for the OAS from 1946 to 1978. The significance of the conference for the LAI is that the LAI has, as part of its overall program, placed emphasis on research into the condition of Indians in Latin America.

Jon M Tolman, LAI associate director for academic programs and professor (Portuguese) in the Department of Modern & Classical Languages, spent approximately two months in Brazil following the end of the spring semester developing film/videotape materials for Portuguese instruction. His work was sponsored by the National Endowment for the Humanities (NEH). The film series, produced in cooperation with TV Globo, Brazil's largest network, also are intended to teach students about Brazilian cultures and society. Each segment presents a complete and realistic drama of some aspect of Brazilian life.

The LAI received a grant of $17,175 from the United States Information Agency (USIA) as the winning institution in a competition to organize and conduct professional development seminars for one week each in the Dominican Republic and in Guatemala. The seminars were offered last year by the University of Kansas. The seminars were an invaluable

opportunity for LAI staff and members of the Faculty Concilium on Latin America to meet with colleagues in Latin America, to gain teaching experience in a Latin American setting, and to acquire field experience. The seminars were well-attended and the enthusiasm of the participants--both American and Latin American--was high. The LAI will apply to conduct future USIA seminars. This year's were the Eighth Annual "New Horizons" Seminar, 10-14 June in Guatemala City; and the Thirteenth Annual Seminar on Contemporary United States Issues for Dominican Professionals, 17-21 June in Santo Domingo. Participating from UNM were Karen Bracken, LAI project assistant and PhD candidate in sociology; Fred R Harris (political science); Mary Grizzard (art and art history); Theo R Crevenna, LAI deputy director; Charles DuMars (law); Guillermina Engelbrecht (curriculum and instruction, College of Education); Peter Gregory (economics); and Nelson Valdes (sociology).

Outside-sponsored Research

The LAI received a $49,394 grant from the US Information Agency (USIA) to help continue the momentum of the faculty exchange program under the convenio between UNM and the Universidad Nacional Autonoma de Mexico (UNAM). Each year, beginning in spring 1986, four faculty from UNAM will come to UNM and four UNM faculty will go to UNAM. Although their salaries will be paid by their respective universities, the USIA grant will be used to make up differences between the salaries of the Mexican faculty and the costs of living between Mexico and the United States. Under the grant, priority will be given to faculty in the humanities, social sciences, and communications fields.

The Tinker Foundation of New York awarded the LAI $15,000 in support of junior faculty and graduate student field research in Latin America, to be shared with consortium partner NMSU and augmented by matching finds of $5,000 contributed by UNM and NMSU. The grant is renewable for two additional years. The LAI had previously been the recipient of this grant from the Tinker Foundation for a three-year period, 1980-83.

Other Activities

The LAI received its third in a regularly scheduled series of outside evaluations in March. The evaluation team included William Glade, director of the Institute for Latin American Studies at the University of Texas-Austin, and Richard Greenleaf, director of the Latin American Center at Tulane University, New Orleans. They visited UNM 7-8 March and met with students, faculty, and administrators, including the provost and the president. A copy of their analysis of the growth and development of the UNM Latin American studies program and recommendations for improvements will be available in September 1985. Previous evaluations of the LAI by external evaluators were made in 1983 and in 1981.

Osvaldo Hurtado Larrea, former Ecuadorian president, spoke at the LAI on 8 April and met with UNM President Tom Farer and Provost McAllister Hull. He then visited and spoke at four universities in California, and the University of Texas-Austin, before returning to Albuquerque to attend the Latin American Studies Association (LASA) congress. Hurtado's itinerary in the United States was arranged by the LAI, and represented a gesture of friendship from the years when as president of

Ecuador he supported and lectured at the UNM Latin American studies center in Quito.

By fortunate coincidence, local attorney Jim Anaya (with Gerald Wilkinson, director of the Albuquerque-based National Indian Youth Council) is one of the principal negotiators for the Miskito Indians of Nicaragua, who are hopeful of receiving guarantees of self-determination from the government there. The LAI program committee committee took advantage of Anaya's work with the Miskito and allied Indian groups--who have combined their efforts under an organization called MISURASATA--to have him speak twice during the spring semester at the LAI. Both sessions received local press coverage, were well-attended, and provoked intensive discussions between members of the audience and Anaya. Anaya's last appearance coincided with a visit to the Southwest by Brooklyn Rivera, a MISURASATA leader, to garner Indian support in the United States. Rivera spoke at the UNM School of Law, at a session also heavily attended by Latin Americanists on campus. In short, their direct and immediate involvement in this sector of the Central American political situation was a stark look by participants in the delicate complexity of geopolitics affecting that beleaguered country.

During the spring semester the LAI sponsored a Contemporary Mexico Lecture Series. Speakers included

Maria Rosa Garcia, Centro de Investigacion y Docencia Economica;
Carlos Tello, Universidad Nacional Autonoma de Mexico;
Carlos Monsivais, literary critic for Nexos and Siempre; and
Jorge Bustamante, Centro de Estudios Fronterizos, Tijuana.

They were some of more than twenty distinguished speakers sponsored or cosponsored by the LAI during the 1984-85 academic year. Others included such diverse experts as Arthur H Hausman, chairman of the board, Ampex Corporation; Javier Jimenez-Ugarte, consul general of Spain in Houston, Texas; Miguel Leon-Portilla, distinguished anthropologist and director of the Center for Historical Research of the Universidad Nacional Autonoma de Mexico (UNAM); and Linus Pauling, Nobel Prize winner, who had just returned from a peace mission to Nicaragua.

The successful visiting scholars program of the LAI has been an important intellectual stimulus to UNM's Latin Americanist community. The program does not involve the expenditure of any funds; under it, professionals from other institutions who wish to be in residence and to participate in LAI programs receive the faculty-rank appointment of Visiting Scholar. Visiting scholars are afforded all faculty privileges, including access to library and research facilities. For the 1984-85 academic year eight visiting scholars were in residence for varying lengths of time:

Father Benedicto Cuesta, in charge, artistic patrimony, Archdiocese of Santa Fe;

Angela Delli Sante, professor, Center for Interdisciplinary Studies, UNAM/ACATLAN, Mexico;

Peter Brandt Evans, professor of sociology, Brown University, Providence, Rhode Island;

Allen Gerlach, executive director, New Mexico Humanities Council;

Carl Aaron Hanson, adjunct professor, Department of History, University of New Mexico;

Bruce E Lane, director, Earthworm Films and Southwestern Folklore Center;

John D Wirth, director, Latin American Language and Area Center, Stanford University; and

Elvira Souza Lima, MA student, elementary education, University of New Mexico.

The second consecutive UNM summer school session was at the Escuela para Extranjeros at the Universidad Nacional Autonoma de Mexico (UNAM), 24 June-6 August, with sixteen UNM students attending. David Maciel (history) served as faculty advisor. Victoria Plata was project assistant. The summer school is a development of the UNM-UNAM convenio.

The first two of nine prominent Mexican artists have come to Albuquerque as part of the Mexico Nueve project, a joint venture of the LAI and Tamarind Institute, with partial funding from the Rockefeller Foundation. First was Roger von Gunten, whose figurative works have been praised by Mexican critics as "joyful" and "radiant." He is known primarily for oil and acrylic paintings, but has also worked in water color, pen and ink, and in several print media, including lithographs. Next was Gunther Gerzo who, with Clinton Adams, Tamarind Institute director before his retirement at the end of the 1984-85 academic year, presented an illustrated public discussion of his work at the Fine Arts Center.

The Mexico Nueve project is designed to promote cultural exchange between Mexico and the United States. The visiting artists will create lithographs and give lectures or participate in studio discussions while

on campus. The lithographs will be exhibited in museums across the United States and Mexico. In addition, a bilingual book based on the lithographs, lectures, and discussions will be published by the UNM Press.

The Peace Corps recruiter, whose office is housed in and administered through the LAI, made another strong showing during 1985. Michael Delongchamp, a student in the dual-degree Latin American Studies/MBA program, has held the position for the past two years. He resigned in June following a successful application for a Title VI fellowship for the coming academic year. His probable successor has worked with him in the past, is of course a former volunteer, and is a Latin American studies graduate student as well. New recruiters are approved by the regional Peace Corps office in Dallas following recommendations by the incumbent and by LAI administrators.

APPENDIX

Latin American Institute Brazilian Studies Guide Series

APPENDIX

The Latin American Institute Brazilian Studies Guide Series

1.	Integrated Humanities Curriculum	Jon Tolman (literature) Fred Sturm (philosophy) Mike Conniff (history) (University of New Mexico)
2.	The Social Dynamics of Brazilian Society	Peter Evans (Brown University)
3.	Contemporary Brazilian Film	Dennis West (University of Idaho)
4.	Classical Brazilian Music	Peter Schoenbach (Boston University)
5.	Contemporary Popular Music	Charles Perrone (University of Texas) Enylton de Sa Rego (University of New Mexico)
6.	Portuguese Language & Brazilian Literature	Ricardo Paiva (Georgetown University) Jon Tolman (University of New Mexico)
7.	Architecture and Sculpture in Brazil	Ottaviano Carlo De Fiore
8.	Demographic History of Brazil	Tom Merrick (Georgetown University)

9. Brazilian Popular Culture	Robert Levine (University of Miami)
10. Women in Brazilian Society	June Hahner (State University of New York-Albany)
11. Contemporary Brazilian Art	Stella de Sa Rego (University of New Mexico)
12. Race Relations in Modern Brazil	Carlos Hasenbalg (IUPERJ-PUC, Rio De Janeiro)

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The Report of the Women Studies Program

July 1, 1984 - June 30, 1985

Dr. Tey Diana Rebolledo, Director

This year was characterized by beginnings. Tey Diana Rebolledo began her first year as Director of the Women Studies Program and Associate Professor of Spanish in the Department of Modern and Classical Languages. She received tenure in that department in May, 1985. We also had, for the first time, a full-time Associate Director, Dr. Helen Bannan, who had previously served as the program's Acting Director. As our half-time instructor we hired Patricia Franzden, a Teaching Associate, who had been active in the program for some time. We also hired a new secretary, Ona Savage.

In addition to its new personnel, the Women Studies Program moved from its long time location in Marron Hall to new quarters in Mesa Vista Hall. We were alloted six full sized rooms and four half sized rooms, in addition to a Conference/Library Room on the second floor of Mesa Vista.

During the course of the year we prepared a strong proposal for a Minor in Women Studies in the College of Arts and Sciences. This proposal was unanimously approved at all levels and in all the appropriate committees at the College and University level. (See attachment)

In addition to our new beginnings (director, associate director, half-time instructor, secretary, offices and minor) we sponsored the

Colloquium for Research on Women along with the New Mexico Women Studies Conference and collectively attended and participated in many regional and national professional meetings. All of these activities enable us to develop professionally both in our individual research as well as to expand our knowledge of new developments in the field of research on women. The program staff published 3 books, 5 professional papers and delivered 9 lectures to national and regional conferences. The Program also carried on an active speakers program with the Director, Associate Director and the instructors regularly speaking to large and small groups in Albuquerque and the state of New Mexico. Talks were given to such diverse groups as the Public Library (Women in Literature Series), the Albuquerque school system, the Genealogical Society, the La Vida Llena Retirement Center, as well as to national scholarly organizations such as the Modern Language Association, the National Women Studies Association and the American Studies Association. The Director and the Associate Director were asked to speak at other universities within and outside the state. Several of our instructors are also nationally known: Navajo poet Luci Tapahonso and author Margaret Randall were invited to speak to a wide range of audiences during the year. As always our faculty participates in giving guest lectures in classes on our university campus. To this end we were invited by many departments to share our knowledge of research on women as well as on the contributions of women to society.

This year's class brochures listed 32 courses funded by the program with a total of 380 students enrolled. In addition there were

ll related courses in traditional departments. We continued our Instructors Seminar which all instructors teaching in our program are requested to attend. This seminar meets monthly and functions not only as professional development for our instructors but also as a pedagogical seminar in which teaching innovations as well as problems may be discussed. It allows newer instructors to learn from more experienced ones.

As mentioned above Dr. Tey Diana Rebolledo began her first year as Director of the program. Her appointment is a joint appointment with the Department of Modern and Classical Languages. In addition to serving as Director with the Women Studies Program, with half-time administrative and teaching duties in the program, she also teaches one course each semester in the Department of Modern and Classical Languages. For 1984-85 she was a member of the Minority Coalition of Ethnic and Women's Programs, Library Committee of the Latin American Institute, the Latin American Faculty Consortium,, the Lena Clove Award Committee, the AAUW Scholarship committee, the Southwest Studies Committee, as well as the Women Studies Committee, the Women Studies Advisory Committee and department and program committees.

Dr. Helen Bannan as the new Associate Director had various responsibilities. She teaches part-time in the program, serves as the program's academic advisor, is ex-officio to the Women Studies Program committees,and performs various administrative duties. She was the grant director for the Mainstreaming Grant.

Patricia Franzden was employed to teach half-time. Ms. Franzden is a doctoral candidate in American Studies. She taught two courses

each semester and coordinated the instructors seminar. Dr. Ann Nihlen, Ed. Foundations, continues her involvement in the program, teaching two classes a year in Women Studies. In addition the program hired the following instructors to teach part-time:

Wendy Carse, Returning Women Students

Kathryn Brooks, Reducing Math Anxiety

Jennie Chavez Montoya, La Chicana

Margaret Randall, Literature of Identity and Commmitment, Third World Women, Women and Creativity

Antoinette Sedillo-Lopez, Women and the Law

Luci Tapahonso, American Indian Women

Marjorie Martin, Her Own Voice: Black Women Writers

Cris Ruggiero, Contemporary Feminist Theory

All of these instructors did an excellent job in carrying out their teaching assignments. Nevertheless, the issues mentioned in previous annual reports remain the same. It is difficult for part-time instructors, who are poorly remunerated, to contribute beyond their teaching to the program. Therefore the fact that they continue to contribute their time, to participate in the program in terms of the instructors seminar, serve on the Women Studies Board and participate in other areas, testifies to their energy, involvement and the importance with which they view the program and its well being. This program and the university need to work towards the establishment of half-time or shared joint appointments with traditional departments.

Program governance remains, as it has in the past, connected to a policy planning board, the Women Studies Committee, which is comprised

of program staff, faculty members, and students. The program is also advised by a Women Studies Advisory Board, this year consisting of 24 faculty members from across the university. (See attachment) Because governance by so many committees has been problematic for the program from time to time, this year we instituted training for board members to better focus on goals and positive elements in the program. We concentrated on establishing policies for hiring that would be rigorous and fair to all. We worked on eliminating those aspects of the program which were perceived to be negative ones. We also instituted a self examination of such policies as co-teaching and curriculum. We hope to continue to improve the academic vigour as well as the practical day to day functioning of the program.

We continue to place emphasis on the multi-cultural aspect of our program not only in terms of course content but also in staff. Our minority teaching faculty included two Hispanics, one Black, one Native American. We were fortunate to have three work study students: one Hispanic, one Native American and one Asian American. We want to continue our tradition of fully including minority women in terms of staff, research, and contributions to American society. To this end we instituted a new summer course, Women in the Southwest, for summer 1985. This course showcased the ever growing research on women and we fully incorporated new material on Hispanic, American Indian and Anglo women. Scholars with expertise on women in the Southest were invited to lecture to the class. In addition to program staff Rebolledo, Bannan, and Tapahonso, these scholars included the following: Dr. Vera Norwood, American Studies; Bruce Bernstein, Curator of the

Maxwell Museum; Dr. Shelly Armitage, Director, New Mexico Humanities Committee; Sharon Niederman, writer; Sandy Schackel, History; Dr. Rina Swentzell, Santa Clara Pueblo; Helen Lucero and Susan Baizerman, weavers; Dr. Vicki Ruiz, History; Dr. Glenda Gray, performance; Pat Mora, poet; and Dr. Louise Lamphere, Anthropology. The course was received enthusiastically by the students and we plan to offer it again in summer, 1986.

Our new computer system was installed using a Zenith 150 PC and a NEC 3550 printer. We ought a Lotus system as well as a Xyrite 2+ for our word processing. All our staff enthusiastically began to learn the system so that our research would proceed more efficiently and our office management would be more in control.

After careful planning and much discussion the work done by the Women Studies Program in previous years was brought to fruition by the unanimous approval at all college and university levels of the Women Studies Minor. This minor consists of 24 credit hours with 9 hours in required courses. The remaining 15 hours are to be chosen from 4 categories: 1. Women in Cultural Context; 2. History of Women; 3. Social Sciences Analysis of Women and 4. Women Studies in the Arts and Humanities. The minor will officially begin in fall, 1985.

Our Conference for Research on Women (CROW) was a meeting running concurrently with the Fifth Annual New Mexico Women Studies Conference. The main theme of this research conference was "Women in the Southwest". It featured 45 scholarly and creative presentations and two keynote speakers. Papers were presented on such topics as women in administration, women in politics, contemporary writers and

family roles in a changing society. This research colloquium provides an exciting forum for the exchange of scholarly ideas for the university and the community. There was in addition a theater presentation by Dr. Glenda Gray on the life of Susan B. Anthony. A reception was held in Hodgin Hall to welcome Tey Diana Rebolledo as Director of the Program as well as to recognize the New Mexico Conference on Women Studies and CROW.

The Women Studies Program received a grant from the Southwest Institute for Research on Women (at the University of Arizona, Tucson) for Mainstreaming Women Studies into the Curriculum. Dr. Helen Bannan was the grant Director. For this grant 25 faculty members from the College of Arts and Sciences, Education, Nursing and Management utilized the ERIC search system at the UNM Zimmerman Library (with the able assistance of librarian Linda Lewis) to find new materials on women in their fields. Once this material was obtained, they revised their syllabi to include this material in their courses. Some faculty members created new courses which utilized this computer information. The program also included several workshops: Dr. Susan Aiken, English, University of Arizona, spoke on the importance of mainstreaming Women Studies and how to do it. These faculty members and the Women Studies program judged the Mainstreaming Project a success. To that end we wrote a grant to the UNM University Foundation asking for some funds to continue the project. Unfortunately we did not received funding for the program.

Talks were held with the Latin American Institute to offer a Women in Development option for part of the major in the Latin

American Studies Master of Arts degree. Dr. Susan Tiano (Sociology) agreed to teach a class in Women in Development and along with the Women Studies Program Director (Rebolledo) to explore the possibilities of outside funding for such a program. This idea was enthusiastically endorsed by both the Latin American Institute and the Women Studies Program. We also cooperated to show a series of Four Films in February on Women in Development in Latin America.

The Women Studies Program sponsored or co-sponsored 22 lectures during the year by distinguished scholars as well as creative writers and artists. Among the speakers were well known writers Alice Walker, Meridel Le Sueur, Sandra Cisneros and Pat Mora, French novelist Maryse Conde, and Mexican poet Elena Milan. Nationally known scholars such as Dr. Bernice Sandler, Dr. Annette Kolodny and Dr. Kirsten Nigro also visited the campus to discuss women's scholarship, women's writing and the integration of the study of women into the general curriculum.

The National Women's Studies Association of which we are a member held its annual meeting in Seattle, Washington. The conference theme was "Creating Choices Through Feminist Education" and 5 papers were presented by UNM Women Studies faculty and students.

During 1984-85 program faculty was active in research as well as in publication. Dr. Rebolledo continues to work on her research on Chicana literature funded by a grant awarded to her in 1984 by the National Endowment for the Humanities. In addition she published four articles in books or referred journals. Dr. Bannan published two articles in referred journals. Luci Tapahonso published a new book of poetry and Margaret Randall published three books during the year.

In all 1984-1985 was an exciting and productive year for the Women Studies program and for its new staff. We intend to continue putting our energy into developing new programs that concentrate on Women in the Southwest to strengthen our regional focus with additional emphasis on Mexico and Latin America.

WOMEN STUDIES PROGRAM

REQUIREMENTS FOR WOMEN STUDIES MINOR
TOTAL HOURS: 24

Required Courses:

WS 200	Introduction to Women Studies
WS 392	Senior Seminar
WS 322	Race, Class and the Feminist Movement OR
WS 324	Contemporary Feminist Theory
TOTAL	9 hours in required courses

Group Requirements:

The remaining 15 hours for the 24 credit minor will be chosen from the courses listed below. Students must take at least one course from Group A, Women in Cultural Context, and also at least one course from two other groups. When this distribution requirement is met, students may choose to concentrate their remaining hours in the group (or groups) of their choice. At least 9 hours must be in courses numbered 300 or above. Students may not apply to this minor courses included in their program of studies for their major.

This list includes both Women Studies courses, and courses originating in other departments which have women studies content, offered regularly in recent semesters at UNM. Additional courses from other departments may be included upon approval of the Director of the Women Studies Program and its Faculty Advisory Board. Each semester, the Program will distribute a list of courses offered that term which are approved for credit toward the minor.

Group A: Women in Cultural Context

WS 231	La Chicana	WS 322	Race, Class & Feminist Movement (if not used as required course in theory above)
WS 233	American Indian Women (AOA Am St 231)	WS 331	Third World Women
WS 234	Her Own Voice: Black Women Writers (AOA Afro A 250)	WS 335	Heterosexism & the Oppression of Women
WS 279	Women in World Cultures (AOA Anth 230)	Soc 507	Women & Development

Group B: History of Women

AmSt 231	Women's Experience in U.S.	Hist 320	Family in American History
WS 279	Women in the Southwest (AOA Am St 301)		Women in the West
AmSt 301	Frontier Women		Women, War & Revolution
Hist 315	History of Women, Ancient to Modern	Hist 330	History of Women's Rights
Hist 316	Women in the Modern World	Hist 544	Seminar in Women's History
		EdFdn 593	History of Women in Education

Group C: Social Science Analyses of Women

Econ 239	Economics of Feminism	WS 386	Women & Sports (AOA HPER 386)
WS 279	Women & Mental Health	Anth 430	Women in Folklore
PolSc 300	Women & the Law I & II	WS 479	Women in Leadership (AOA EdFdn 493 & PubAd 528)
	Women & Politics	EdFdn 486	Psychological Development of of Women
Nurs 307	Women & Health Care	WS 487	Sexism in Education (AOA EdFdn 487)
Soc 308	Sociology of Sex Roles	WS 498	Field Experience
WS 339	Women Abuse		
Anth 341	Biosocial Bases of Sex Roles		
WS 379	Women & Work		

Group D: Women Studies in the Arts & Humanities

Engl 211	Women in Literature	WS 357	Media-Arts & Women (AOA Art Ed 357)
AmSt 302	Women, Violence & Media	Engl 360	Virginia Woolf
WS 324	Contemporary Feminist Theory (if not used as required course in theory above)	WS 379	Mothers & Daughters
		ArtHi 429	Women Artists
WS 379	Classics of Feminism (AOA Am St. 331)	MLang 439	Women Writers of Latin America
AmSt 332	Women & Nature	Engl 470	Contemporary Women Poets
WS 353	Women & Creativity	Engl 488	Images of Victorian Women
		Engl 511	20th Century Women Writers

For further information, contact Women Studies Program, 2142 Mesa Vista Hall, 277-3854.

MARRON HALL 233
277-3854 for information

WOMEN STUDIES PROGRAM
UNIVERSITY OF NEW MEXICO

SEMINAR ON RETURNING WOMEN STUDENTS, WS 181.001, Nancy Carson
T-Th 12:30-1:45 pm

Intended for women who are entering or returning to the University after an interruption in their formal schooling. The objectives of the seminar are to identify and solve some of the basic problems associated with re-entry, to review academic skills (through skills workshops) which will facilitate a successful college experience, and to provide an opportunity for women students to begin to define their own educational needs and problems. The class will also include educational and career counseling, personal coping skills as well as financial aid information.

REDUCING MATH ANXIETY, WS 182.400, Kathryn Brooks
M 4:30-6:20 pm

Designed to offer students individual assessment of math needs and methods of coping with math related anxiety. The class explores the phenomenon of "math anxiety" and its relationship to sex role stereotypes and learning. Individualized instruction in math will be supplemented with experience designed to alleviate math anxiety.

INTRODUCTION TO WOMEN STUDIES, WS 200.001, Ann Nihlen
T-Th 11:00-12:15 pm

What is the status of women in society? What are the myths and realities of her situation? Introduction to Women Studies will address these questions by examining the importance of factors such as sex, race, class, culture, and their affect on women's socialization. In addition, will explore the economics of her oppression as well as the role of education and family in defining "women's place."

LA CHICANA, WS 232.001, Jannie Chavez-Montoya
MWF 11:00-11:50 am

This course will examine the Chicana and historical development from pre-European society to the present. Works pertaining to the Chicana by Chicanos, non-Chicanas and men will be read. Most important, dialogue will be encouraged to analyze the myths or truths in the works presented. Independent reading and research are expected.

A LITERATURE OF IDENTITY AND COMMITMENT, WS 279.400, Margaret Randall
Th 6:30-9:15 pm

In an informal seminar, with an emphasis on dialogue, students would share with the professor a series of readings through which people's struggles to remain whole and to grow against odds of differing kinds would provide themes for discussion. Testimonial literature is emphasized, but photographic images will be studied. The purpose of the course is: 1) to approach literature as a source for personal and collective change, 2) to examine the ways in which human beings overcome painful difficulties--poverty, ignorance, racism, sexism, long confinement, etc.--and to not only grow, but become examples to others, and 3) to probe the idea that only when the word or image are transformed into art is the life force effectively served.

THIRD WORLD WOMEN, WS 331.001, Margaret Randall
MWF 11:00-11:50 pm

We will listen to Third World Women (from Asia, Africa, Latin America, and the prisons of Northern Ireland and Spain's Basque Country) speak of their lives, their experience. Survey course which will acquaint student with the history, reality, struggles and dreams of our Third World sisters, so we may become ever more sensitive to their multiple visions of the world, and learn from them.

HETEROSEXISM AND THE OPPRESSION OF WOMEN: (THE LESBIAN EXPERIENCE), WS 335.001, T. Franzen
MW 3:00-4:15 pm

What is heterosexism? What is its relationship to women's oppression? This course will address these issues as well as developing historical, empirical, and political analyses of sex and gender roles and sexual preference. We will explore theories of the determinance of sexual preference; the nature of female friendships and bonding; cross-cultural analysis of matriarchy and patriarchy; legal, economic and cultural institutions and practices which affect lesbians; the experience of lesbians of color; communication between lesbians and non-lesbian women; and the nature of lesbian culture and communities.

WOMAN ABUSE, WS 339.001, Trisha Franzen
Tu 6:30-9:15 pm

The forms of woman abuse range from subtle to overt and from verbal to physical. This course will examine the various manifestations of woman abuse throughout the world and develop theoretical and historical analysis of the connections between socialized behaviors for women and institutionalized abuse. Some of the topics which will be covered are sexual assault, incest, women in prison, domestic violence, pornography, the psychology of victimization and forced sterilization. In addition, we will explore the ways in which abuse varies, if it does, by race, class and ethnicity. The students will develop strategies and tactics for resisting oppression and abuse and will be encouraged to participate in community organizations which deal with the issues of woman abuse.

IMMIGRANT WOMEN, WS 379.002, Helen Bannan
T-Th 2:00-3:15 pm

This course will focus on the lives of immigrant women of many nationalities as presented in literature, oral history, sociology and autobiography. We will compare women's roles in different ethnic groups and study various responses to the pressures of acculturation, especially as they affect immigrant mothers and their daughters.

FIELD EXPERIENCE, WS 498.001, Helen Bannan
(Day/time to be arranged with students)

Planned and supervised work experience in a community agency serving women. Prerequisites: WS 200, prior completion of placement procedures (including meeting specific training or course work requirements of certain agencies), and consent of instructor.

MARRON HALL 233
277-3854 for information

WOMEN STUDIES PROGRAM
UNIVERSITY OF NEW MEXICO

CROSS-LISTED COURSES

ECONOMICS OF FEMINISM, Economics 239,000, Lee Baynie
T-Th 9:30-10:45 am

A study of the economic status of women in Western society, feminism and alternative economic systems, economic implications of family and other traditional structures, and economic politicas for achieving feminist goals. We will also examine women's economic position in socialist and peasant economies. Readings will include selections from classic accounts of women in the economy and contemporary studies. Prerequisite: Economics 201 or permission of instructor.

BLACK WOMEN, Afro Am Studies 250.001, O. Okumabua
T-Th 1:00-2:15 pm

A survey of the literature as it describes the lives of black women in America in comparison to historical realities; ascertaining the truth of their existance, the purpose, and survival as either the victim or creator of historical, environmental, sociological, and psychological paradigms.

WOMEN AND LAW I, Political Science 300.002, Antoinette Sedillo-Lopez
Th 6:30-9:15 pm

The first semester of Women and Law should serve three functions: 1) to provide the intellectual tools and vocabulary necessary for non-law students to address legal issues; 2) to provide a relatively broad background in constitutional law so that students may comprehend the relationship of women's rights to other guarantees and protections; 3) to introduce the three broad federal methods for attacking sex discrimination - the Equal Protection Clause with regard to state action; Title VII with regard to employment; Title IX with regard to education.

HISTORY OF WOMEN'S RIGHTS MOVEMENT, History 330.001, Jane Slaughter
MWF 1:00-1:50 pm

This course examines the varieties of feminist movements in the U.S. and Europe in the 19th and 20th centuries. The background, composition, ideology and programs, successes and failures of the various groups will provide the focus for this course. Material is approached topically; for each topic there will be background lecture, discussion of assigned readings and specific oral reports by all members of the class (2 per semester). A final written examination provides an opportunity to discuss general meaning and impact of feminism in the 19th and 20th centuries.

PSYCHOLOGICAL DEVELOPMENT OF WOMEN, Ed Fndns 486.001/586.001, Vera John-Steiner
MW 3:00-4:15 pm

This course is planned around four major topics. First, we will explore the therapeutic literature on women, including writings of female therapists, such as Karen Horney and Phyllis Chesler. Second, sense and gender and the intense contemporary debate over the effects, if any, of these will be discussed. Third, cross-cultural perspectives on women's roles will be examined. Fourth, synthesis. We will attempt to explain the way in which a social science approach to the study of psychology of women can be combined with a humanistic point of view. Open to juniors, seniors and graduate students drawn from social sciences, psychology, education and others who may be interested. We will try to keep enrollment at 30. Graduate students will be expected to carry out a small scale research project in addition to undergraduate requirements.

SEMINAR ON THE HISTORY OF WOMEN, History 544.001, Jane Slaughter
W 3:30-6:15 pm

The seminar is designed to acquaint students with recent works and varied methodologies relating to Women's History in both the United States and Europe. The selection of material will sample representative studies in the major topical approaches in women's history - e.g. demographic study, women and economic development, women's politics, family history, oral history, sexuality, woman's culture, education and intellectual history. Each week there will be assigned readings for the entire class to serve as a basis for discussion of appropriate methodology and topical material, and individual students will provide critical analyses of additional material relating to the topic. As a full semester project each student will compile a full bibliography of a topic of interest.

FOUNDATIONS OF WOMEN'S STUDIES, Ed Fndns 593.002, Ann Nihlen
M 6:30-9:15 pm

This is a graduate level, introductory class which will introduce the student to the major issues in gender studies and the discipline of Women Studies. Readings will include historical, psychological, anthropological and educational works. Research articles, books and guest speakers will all seek to demonstrate the breadth of Women Studies and the study of gender. There will be required readings, a research project and short reports.

WOMEN STUDIES PROGRAM

Spring 1985
Course Descriptions

For further information, please contact Women Studies Program Office at 2142 Mesa Vista Hall or call 277-3854.

SEMINAR ON RETURNING WOMEN STUDENTS, WS 181.400
Wendy K. Carse, Instructor T - Th 4:30 - 5:45

Intended for women who are entering or returning to the University after an interruption in their formal schooling. The objectives of the seminar are to identify and solve some of the basic problems associated with re-entry, to review academic skills (through skills workshops) which will facilitate a successful college experience, and to provide an opportunity for women students to begin to define their own educational needs and problems. The class will also include educational and career counseling, personal coping skills as well as financial aid information.

REDUCING MATH ANXIETY, WS 182.400
Kathryn Brooks, Instructor M 4:30 - 6:30

Designed to offer students individual assessment of math needs and methods of coping with math related anxiety. The class explores the phenomenon of "math anxiety" and its relationship to sex role stereotypes and learning. Individualized instruction in math will be supplemented with experience designed to alleviate math anxiety.

INTRODUCTION TO WOMEN STUDIES, WS 200.001 & 200.002
Dr. Helen M. Bannan Trisha Franzen, Instructor
T - Th 11:00 - 12:15 Tu 6:30 - 9:15

Women's history, women's health, the experiences of women of color, women and work, the family, sexuality, women of the Southwest - Introduction to Women Studies surveys the feminist landscape. This core Women Studies course provides a foundation for students interested in this academic field. Through lectures and discussions, movies and research projects, students learn the impact the Women's Movement has had within the University and throughout the world, in our communities and in our own lives.

AMERICAN INDIAN WOMEN, WS 233.001
Luci Tapahonso, Instructor T - Th 12:30 - 1:45

The course will identify issues common to all women, but will primarily focus on those unique issues which effect the lives of American Indian women residing in communities (on and off reservations/villages) in the Southwest. Political, economic, social and literary issues which impinge upon the changing role of American Indian women will be the focus of the course. Guest speakers who are active in various areas will visit the class.

HER OWN VOICE: BLACK WOMEN WRITERS, WS 234.001
Staff M W F 12:00 - 12:50

An exploration of the body of work written exclusively by Black women around the world. A variety of genres will be covered and sufficient historical and sociological materials presented to provide a context for interpreting the works under examination. The use of historical as well as contemporary materials allows students to investigate the experiences of Black women as they define themselves and as they have been defined in different eras and cultures. The topics of race, class, oral tradition, access to education and publication, the slave experience, use of stereotypes, and the work of Black Lesbian writers are components of the course.

RACE, CLASS & THE FEMINIST MOVEMENT, WS 322.001
Trisha Franzen, Instructor T Th 9:30 - 10:45

How do feminists struggle against race and class divisions within their own movement? Within society? What have been the historical bases for and barriers against unity among women? An understanding of racism and class oppression is essential to the development of a feminist theory which informs a program for women's liberation. Through examinations of theory and practice, the roles of the individual and groups of women, this class will analyze these issues and develop strategies for building a more inclusive movement.

CONTEMPORARY FEMINIST THEORY, WS 324.001
Staff M W F 10:00 - 10:50

In this course we will look at the language and meaning of the feminist movement for all women. Each theoretical framework we consider will be looked at according to the truth of the analysis (does it adequately explain original/perpetuating causes of women's oppression? Is it a complete analysis? The reality of the vision (what does the theorist foresee in the future if we adopt her vision? Are there gaps? Is it culturally viable?); and the meaning of the strategy proposed (will our lives be divided on issues? How do we struggle differently with similar issues? How do we support each other?). Each woman will be expected to develop and defend her own understanding of feminism after thorough exploration of other feminists' definitions.

WOMEN AND CREATIVITY, WS 353.001
Staff W 3:30 - 6:15

Are women less imaginative than men? Do women writers have limited scope? Have there been no great women artists? Do women tailor their messages to men? What has inhibited talented women? Are minority women in a double bind? How does the creative process work for women in different fields - literature, visual arts, etc? How do we begin to please ourselves? Do we need to establish our own cultural institutions? Delve into these questions and more.

WOMEN, MYTH & MADNESS IN LITERATURE, WS 379.001 (AOA Am. St. 301.006)
Dr. Tey Diana Rebolledo Tu 3:30 - 6:15

A course focusing on myth and madness and women in literature written primarily by American minority women writers. We will study the myths arising from Native American, Chicana, Black, Asian American and Latin American texts written by women. We will observe the various forms of madness, its alienation and its creativity in these texts. There will be close textual analysis accompanied by a study of the cultural background from which the texts spring.

MEXICAN WOMEN IN THE U.S., WS 379.400 (AOA Cont. Ed. 379.400)
Jennie Chavez-Montoya, Instructor W 6:30 - 9:15

Women of Mexican cultural orgins living in the United States have a unique and distinct perspective that can productively contribute to the strength of this nation. Yet she must overcome immense obstacles in order to fully participate in the society. We shall examine where the Mexican woman or La Chicana stands in education, employment, and the professions. We shall study the structures with which she must deal on an everyday basis--health services, the courts, business, politics and familial relationships. We shall focus, lastly, on those creative expressions that bring forth the sentimientos of a Mexican woman.

FIELD EXPERIENCE, WS 498.001
Dr. Helen M. Bannan Arranged

Students interested in applying their Women Studies background to the "real world" by working 10 hours per week in an organization or agency dealing with women's issues, broadly defined, can earn graded credit. Requires consultation with faculty and on-site supervisor, and written evaluations of your experience within the organization. YOU MUST BEGIN ARRANGING FOR PLACEMENT BEFORE THE BEGINNING OF THE SEMESTER. Prerequisite: Introduction to Women Studies, and specific requirements for certain agencies. Make an appointment to begin the placement process as soon as possible by calling instructor, 277-3854.

WOMEN IN MANAGEMENT, ASM 594.002
Dr. Helen Muller Th 3:30 - 6:15

This course will address social policy issues and organizational issues related to women in public and private sector management. It will also discuss skills which can assist women in their professional career paths. The course will maintain a critical perspective on the factors which enhance and inhibit the equitable treatment of women in the workplace.

HISTORY OF WOMEN IN THE MODERN WORLD, HISTORY 316.001
Dr. Jane Slaughter M W F 1:00 - 1:50

This is a general survey of women in both the U.S. and Europe in the 19th and 20th centuries emphasizing broad social and economic interpretations which provide the context for women's experiences discussed in such topical areas as divisions of labor, public and private work, women's culture, female networks and strategies, the interplay of race, class and sex, marriage, family and sexuality.

WOMEN AND THE LAW, II, POLITICAL SCIENCE 300.003
Antoinette Sedillo-Lopez, Instructor Th 6:30 - 9:15

Women and The Law, II class will be a seminar focused on women's legal issues in the public sphere. The course will examine employment discrimination, pregnancy discrimination, Title VII, constitutional law, and aspects of women in the criminal justice system. Women and The Law I is not a prerequisite for Women and The Law II.

WOMEN AND POLITICS, POLITICAL SCIENCE 300.004
Dr. Debra Rosenthal T - Th 11:00 - 12:15

This course is an introduction to the study of women and politics primarily in the context of the United States. The course will focus on the relationship between sex and power through an examination of theoretical literature, the different spheres (political, economic, and social) in which women have attempted to gain power, and the different strategies that have been or might be adopted in order to enable women to gain and exert more influence and control over policy and public life.

WOMEN IN DEVELOPING SOCIETIES, SOCIOLOGY 507.001
Dr. Susan Tiano M 6:30 - 9:15

This seminar will focus on the changing status and roles of Third World women in light of contrasting conceptions of development. Neocolonial models of modernization and development will be contrasted with an alternative perspective which views male-female power asymmetry as an aspect of uneven global development. An analysis of the impact on women of colonialism and capitalist-oriented development will provide a backdrop for assessing rural and urban women's changing relationship to the means of production as well as the varying forms of political mobilization aimed at improving women's material conditions. Alternative development strategies will be analyzed in an attempt to transcend the narrow concern with privileged women as beneficiaries of development. Throughout the seminar consideration will extend to different dimensions of socio-cultural change within structures of dependency and unequal development as they affect Third World women.

HISTORY OF WOMEN IN EDUCATION, EDUCATIONAL FOUNDATIONS 593.001
Dr. Ann Nihlen M W 4:00 - 5:15

Why are women not of equal status with men in education? The data suggests that the schools' history, staffing patterns and curriculum reflect the gender inequality prevalent in society, and that the roles of women in any educational system reflect women's position in that society at large. This course will analyze the historic roles women have played in education as well as the ways education has effected the role of women. Some of the topics will be: the "Dame" schools, early female academies, underground slave schools, working class factory schools, BIA boarding schools, the female "salons" of the Northeast, early childhood education, the women's colleges, coed land grant colleges, as well as normal schools. Class is organized as a seminar with several short papers and one research paper required.

New Offering - Course approval process not yet complete as of 11/21/84; check with American Studies Department at 277-3229 or Registration Office before you try to enroll.

FEMINIST THOUGHT IN THE SHAPING OF AMERICAN CULTURE, AMERICAN STUDIES 301,501
Margaret Randall, Instructor Th 6:30 - 9:15

This course looks at the development of our nation through the perceptions of our founding mothers: women of differing ethnic origins, social classes and activities who, along with Emerson, Thoreau, and Douglass, influenced the thought and praxis of today's United States. We will go primarily to texts from the women themselves: their speeches, essays, letters, diaries, and memoires.

WOMEN STUDIES PROGRAM ADVISORY BOARD

Jane Abrams -
Art
Kathryn Brooks -
Women's Center
Maire T. Buckman -
Medicine
Erlinda Gonzales-Berry -
Modern & Classical Languages
Vivian Heyward -
Physical Education
Vera John-Steiner -
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Recreation
Susan Tiano -
Sociology
Susan Williams -
Communicative Disorders
Carolyn Wood -
Educational Administration

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Helen Bannan -
Associate Director, Women Studies Program
T. Diane Bolelledo -
Director, Women Studies Program/Modern & Classical Languages

Women Studies Committee
Meeting, December 7, 1984

Present:

Tey Diana Rebolledo	Kathryn Brooks	Sofia Martinez
Helen M. Bannan	Ann Nihlen	Trisha Franzen
Wendy Carse	Carol Hunter	Ona Savage

Agenda:

1. Minutes
2. Summer Courses
3. Brown Bag Luncheon Series
4. International Women's Day
5. Fall '85 Courses
6. Announcements

The facilitator for this meeting was Trisha Franzen.

1. Minutes were reviewed and no corrections requested.

2. Summer, 1985 Course Offerings. Discussion dealt with the possibilities which could be considered by the Committee.

Women in the Southwest, could be coordinated with the Southwest Studies Interdisciplinary Institute. The Committee liked the idea of including women in the curriculum in the SW Institute. The question arose, if we push to get them to include women, will we have to give funding to the Institute. A possible teacher might be Louise Lamphere.

Sexism in Education, could be taught by Ann Nihlen. This course was last taught a year ago and teachers take it in the summer. Funding of this course was discussed. Would Dean David Colton of Education be willing to fund this offering?

Proposal: The Women Studies Committee proposes that the summer course offering choices be: 1. Women in the Southwest, taught as part of the Southwest Institute or as a contiguous course or, 2. Sexism in Education. A letter would be sent to Dean Colton requesting financial support. Shared costs on both courses would be best.

Vote to accept the proposal - unanimous support.

3. Brown Bag Luncheon Series - suggestions for speakers and/or topics was sought for the Spring, 1985 series. (List was ranked ordered by members.)

Carol Hunter	Red Cross Women
Tina Fuentes	Chicana artist
Susan Tiano	Women in Development
Joyce Carlson-Leavitt	Brazilian writers
Helen Damico	Medieval Women
Marjorie Ann Martin	Her research
Juba Clayton, Myra & Diana	Black Women in New Mexico - readers' theater project
Women's Political Caucus, N.M.	re: Jeannette Rankin
Helen Muller	Women in Management

4. International Women's Day, March 8, 1985. Diana Rebolledo discussed the possibility of the Women Studies Program sponsoring a luncheon to honor minority women who have not been recognized before by the Women Studies Program. Committee discussion followed. Kathy Brooks will make plans for the room reservation at the Student Union Building. The selection process could be early in the spring, probably selecting 3 or 4 women to honor. Nominations would not be sought.

5. Fall, 1985 Course Offerings. Discussion ranged from possible changes in the core list to which courses should succeed others in scheduling for maximum student enrollment. Several issues arose:

- How to settle the issue with the Classics of Feminism now taught in American Studies which the Committee felt should probably be a Women Studies Program course.

- Economics of Feminism, no instructor is now available in that department to teach the class. Perhaps there should be a name change and it be upgraded to a 400 level course. It could become a progression with Women and Work. The Economics of Feminism is owned by Economics but paid for by Women Studies. In January Rebolledo will try to meet with Parker of Economics to see about resolution of these matters.

- Crosslisting. Rebolledo said she would like to crosslist as many courses as possible to help enrollment and the budget.

- How many sections should there be of the Introduction to Women Studies?

- Race, Class and the Feminist Movement, which is being offered this spring has generally been taught in the fall. If one theory course doesn't have sufficient enrollment this spring it could be offered in the Fall.

The preliminary suggestions for Fall, 1985 course offerings is as follows:

1. Seminar for Returning Women Students
2. Reducing Math Anxiety
3. Introduction to Women Studies
4. Heterosexism and the Oppression of Women
5. Women Abuse
6. La Chicana
7. Women and the Law I
8. Undergraduate Problem
9. Field Experience

Alternate:

10. Third World Women / Economics of Feminism.

6. Announcements. General announcements were made regarding holiday celebrations at the Women's Center and Women Studies Program.

WOMEN IN DEVELOPMENT - LATIN AMERICA

FOUR FILMS IN FEBRUARY

Tuesday, FEBRUARY 12, 1985 7:00 pm

The Life and Death of Frida Kahlo (Mexico)

A beautifully haunting film about the Mexican painter Frida Kahlo and her depiction of her life in her art.

The Double Day (South America)

Poor women who work in Latin America talk about their lives, and their double burden of working outside the home for survival and an additional workday inside the home.

Tuesday, FEBRUARY 26, 1985 7:00 pm

Mujeres del Planeta (Peru)

This film deals with the lives of the women living in a shantytown outside of Lima, Peru. The film illustrates their struggle to organize for better living conditions.

Simplemente Jenny (Latin America)

A film about women in Latin America and the cultural values that shape their lives. Scenes of urban slums, abandoned children and broken homes are juxtaposed against romantic media images. The film shows how some women have rejected these models and have begun to organize politically in hopes for a better future.

All films will be shown at the University of New Mexico Sub Theatre. There will be an informal discussion by Latin American and Women Studies Scholars after the films.

No Charge.

Sponsored by the Latin American Institute and the UNM Women Studies Program.

For Information call: 277-3854

PIONEER HISPANIC WOMEN WRITERS

by

María Kelley

March 6, 1985

Women's Studies Program - UNM

2131 Mesa Vista Hall

7:30 p.m.

Sponsor: Department of Modern and Classical Languages and Southwest Hispanic Research Institute

Funding: New Mexico Humanities Council

5th ANNUAL
NEW MEXICO WOMEN'S STUDIES CONFERENCE
in conjunction with the

2nd ANNUAL COLLOQUIUM FOR RESEARCH ON WOMEN
co-sponsored by

The University of New Mexico Women Studies Program, Women's Center and the Faculty and Professional Women's Association

MARCH 22 & 23, 1985

UNIVERSITY
of
NEW MEXICO
CAMPUS

ACKNOWLEDGEMENTS

We are grateful to the following people and programs whose assistance has helped make this conference possible.

New Mexico Union
Provost's Office, UNM
UNM Alumni Association
William C. Baurecht, President
Phi Kappa Phi, UNM Chapter
Dean Charlene McDermott,
Office of Graduate Studies
Dr. Janet Roebuck, Chair,
History Department, UNM
Southwest Hispanic Research Institute
Eulalie Brown
Sandra Spurloch
Carolyn Dickerman
Vera Norwood
P. M. Duffey-Ingrassia
Karen Abraham
Wendy Carse
Carla Wofsy
Holly Sowerwine
Karen Cleary
Marvin "Swede" Johnson
New Mexico Humanities
Council
Affirmative Action, UNM
Juanita Meade
Linda Gilkey
Lynn Wagner
Linda Lewis
Jeanne Sohn
Alice Clark
Charlotta Medina
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Gina Montoya
Norma Milanovich
Patricia Murphy
Dru Saren
Jennie Johns
Georgine Stob

C.R.O.W. PLANNING COMMITTEE

Helen Bannan
Kathryn Brooks
Teresa Marquez
Tey Diana Rebolledo
Ona Savage
Elizabeth Stefanics
Mitzi Vigil
Carolina Yahne

Friday, March 22, 1985

10:00 - 12:00 REGISTRATION - UNM Student Union Building Room 231 A & B

12:00 - 1:30 LUNCHEON - UNM Student Union Building, North Ballroom
SPEAKER: Dr. Jo-Ann Flora, Vice-President, Academic Affairs, University of Albuquerque
TOPIC: "Women in Administration"
Introduction of Superintendent Lillian Barna, Albuquerque Public Schools and President Tom J. Farer, University of New Mexico

1:45 - 3:00 SESSION 1 THERAPY AND HEALING - Room 231 C&D
"Wounded Woman: The Use of Guided Imagery and Music in Recovering from a Mastectomy" - Susan Hamilton, M.A. Registered Music Therapist in Private Practice.

"The 'Stuck' Client and the Theory of the Black Cloud: A Theoretical Model of Healing for Victims of Past Sexual Abuse - Jan Bowes Martinez, M.S.,M.A., Albuquerque Rape Crisis Center

SESSION 2 BLACK WOMEN: New Road to Freedom - Room 250 CD&E
"Black Women in Politics" - Pamelya Herndon, Afro-American Studies Program, UNM

"Dramatic Presentation: Images of Black Women in Literature, Past and Present" - Juba Clayton, Afro-American Studies Program, UNM

"Black Women in Sports" - Theresa Okwumabua, Ph.D., Afro-American Studies Program, UNM

SESSION 3 OUTSIDE INFLUENCES ON NATIVE AMERICAN WOMEN'S LIVES - Room 250 A&B
"A View from Rainbow Bridge: Feminist Therapist meets Changing Woman" - Joan R. Saks Berman, Ph.D., Indian Health Service

"Native American Women and Exogamy: Canadian and American Perspectives" - Hana Samek, Graduate Student Department of History, UNM

"'True Womanhood ' on the Reservation: Field Matrons in U.S. Indian Service,1890-1930" - Helen M. Bannan, Ph.D., Associate Director, UNM Women Studies Program

3:15 - 4:30 SESSION 1 RESEARCH ON EATING DISORDERS - Room 250 A&B
"Compulsive Overeating: A Descriptive Study" - Martha J. Klein, Graduate Student, Social Work, NMHU

"Results from a National Survey on Anorexia Nervosa and Bulimia" - Norma Jean Wilkes, M.A., New Mexico Center for the Treatment of Eating Disorders

SESSION 2 IMAGES OF WOMEN IN FILM - Room 250 CD&E
"Can He Terminate Her: A Brief Analysis of Captivity Mythology in Popular Film" - Eithne Johnson, Undergraduate, UNM

"Some Thoughts on Women in Westerns" - Sandy Schackel, Graduate Student, Department of History, UNM

"Images of Mexicanas/Chicanas in Popular Film" - Catherine Vallejos Bartlett, Graduate Student, American Studies , UNM

SESSION 3 CREATIVE WRITERS READ THEIR POETRY - Room 231 C&D
"Poems from 'Navigating the Platte'"- Beverly Merrick, Image Maker

Poetry - Leslie A. Donovan

Poetry - Phyllis Thompson

4:30 - 5:30 RECEPTION - Hodgin Hall - Bobo Room

8:00 ENTERTAINMENT: GLENDA GRAY as SUSAN B. ANTHONY - Chautauqua Presentation, sponsored by the New Mexico Humanities Council - Humanities Bldg. Room 108

Saturday, March 23, 1985

8:30 - 9:30 CONTINENTAL BREAKFAST/REGISTRATION - Room 230

9:45 - 10:45 SESSION 1 FEMINIST VIEWS OF WOMEN'S SEXUALITY - Room 231 C&D
"Compulsory Heterosexuality Through the Lens of Aging" Alice Brasfield, Graduate Student, Educational Foundations, UNM

"Toward a Feminist Theory of Sexuality"- Valerie Ford, Graduate Student, Educational Foundations, UNM

SESSION 2 BLACK AND WHITE IDEOLOGY AND REALITY - Room 250 A&B
"Keeping Us From Each Other: Racial Differences and Heterosexism in Post WWII Ideology for Women" - Trisha Franzen, Teaching Associate, Women Studies, UNM

"Poverty in America: A Problem for Black Female Headed Households." - Theresa M. Okwumabua, Ph.D., and Dudley Allen, Jr., Afro-American Studies Program, UNM

SESSION 3 FAMILY ROLES IN A CHANGING SOCIETY - Room 250 CD&E
"Time Use By Women, 1926-1978" - Pamela Olson, Ph.D., Family Studies, UNM. Co-authors: G. Olson, E. Dickson, and J. Meiners.

"Comparison of Male and Female Spouses of Medical Students" - Maggi Moore-West, Ph.D., Dept. of Family Community & Emergency Medicine & Psychiatry, UNM School of Medicine; Kathy Benshoof, Longitudinal Project Coordinator, UNM School of Medicine; Lynn E. Lahren, Program Specialist, Primary Care Curriculum, UNM School of Medicine

SESSION 4 CREATIVE WRITERS READ THEIR SHORT STORIES - Room 231 E
"Paganini's Birthday" - Sharon Niederman

"The River Goddess" - Patricia Anaya

11:00 - 12:15 SESSION 1 RELIGIOUS IMAGES OF WOMEN - Room 231 C&D
Poetic Drama "Only Say the Word" - Demetria Martinez

"Motherly Love: The Virgin Mary as Central Figure in Willa Cather's Death Comes for the Archbishop" - Catherine Yamamoto

"Images of God the Mother" - Meinrad Craighead, Albuquerque Artist

SESSION 2 WOMEN IN NEW MEXICO - Room 250 A&B
"Eleanor Williams (1906-1979) Artist and Writer - Chapel Petty Schmitt, Graduate Student, English Dept., UNM

"Survivors and Savers: Black Women Settlers in New Mexico" - Charlotte K. Mock, M.A.

"The Influence of American Education on Navajo Women's Traditional Roles" - Luci Tapahonso, Instructor, Women Studies and Native American Studies, UNM

SESSION 3 WOMEN IN POLITICS: Past and Present - Room 250 CD&E
"First Female Challenges to the Senate: The 1918 Campaigns of Anne Martin and Jeannette Rankin" - Anne Howard, Ph.D., English Department, University of Nevada-Reno

"Campaign: Senate 1984" - Judith Pratt

"Women and the Sport of Millionaires" - Marjorie Bell Chambers

12:30 - 2:00 LUNCHEON - UNM Student Union Building -Garden Court Second Floor
SPEAKER: Joan Jensen, Chair, History Dept., N.M.S.U.
TOPIC: "New Mexico Women: Intercultural Perspectives"

PRESENTATION OF ZIA AWARDS for Student Research on Women
High School: Arwen Donahue, Santa Fe High School
(Teacher: Beverly McCrary)
Undergraduate: Margaret A. Phelan, UNM

Zia Certificates of Merit:
High School:
Lani Wilcox, Rio Grande H.S., Albuquerque
(Teacher: Hollis Elkins);
Rhonda Saavedra, West Las Vegas H.S.
(Teacher: Carmen Baca)
Undergraduates:
Kathleen M. Dante & Eithne Johnson, UNM

2:00 - 3:15 SESSION 1 CONTEMPORARY LATINA WRITERS - Room 231 C&D
"Reaching Out to Outcasts" - Lori K. Diehl, Graduate Student, Department of Modern and Classical Languages, UNM

"Witches, Bitches and Midwives: The Role of the Poet in Recent Chicana Poetry" - Tey Diana Rebolledo, Ph.D., Director, UNM Women Studies Program

SESSION 2 SHAME: Overcoming Incest & Masochism - Room 250 CD&E
"Redefining Masochism in the Context of Shame" - Nancy K. Morrison, M.D., Department of Psychiatry, UNM Medical Center

"The Long Term Effects of Child Sexual Abuse: Working with Adult Incest Survivors" - Caryl Trotter, M.A., Sexual Assault Treatment Services and Stefani Atwood, Graduate Student, Counselor Education, UNM

SESSION 3 ROLE CONFLICTS AMONG WOMEN PROFESSIONALS - Room 250 A&B
"The Current Status of Women Teaching Philosophy" - Mirabai Starr Whitehorse, Graduate Student, Department of Philosophy, UNM

"Carson McCullers: The Effects of Selfishness vs. Selflessness on Her Life and Work" - Kathleen M. Dante, Undergraduate, UNM

3:30 - 4:15 CONTINUING THE COMMITMENT: Multicultural Interdisciplinary Women's Studies - Room 250 A-E
Ann Nihlen, Assistant Professor, Educational Foundations, UNM; Luci Tapahonso, Instructor, Women Studies & Native American Studies, UNM; Wendy Carse, Instructor, Women Studies, Instruction/Tutoring Coordinator, Special Services & Upward Bound, UNM; Barbara R. Collins, Undergraduate, Women Studies, UNM; Trisha Franzen, Teaching Associate, Women Studies, UNM.

4:15 - 5:00 STATEWIDE WOMEN'S STUDIES NETWORK MEETING - Room 250
Reports and Plans for next year

Poetry Reading

POET ELENA MILAN will speak on "Los Talleres Poeticos en Mexico a partir de 1968" in the Ortega Reading Room, Third Floor, Ortega Hall Wednesday, April 17 from 2-3 pm.

Elena Milan is one of Mexico's leading feminist poets. She has published several volumns of poetry and is also widely published in literary journals and reviews. Her work has also been translated into English. She will also read from her work.

Her talk is sponsored by the Women Studies Program, The Latin American Institute, The Faculty Speakers Committee and the Mexican Consulate in Albuquerque. You are all invited to attend.

For further information, call The Women Studies Program 277-3854

COUNSELING, ASSISTANCE AND REFERRAL SERVICE

ANNUAL REPORT

1984 - 1985

COUNSELING, ASSISTANCE AND REFERRAL SERVICE
ANNUAL REPORT
1984 - 1985
ILSE GAY, DIRECTOR

I. Significant Developments

A. On July 1, 1984, the Counseling, Assistance and Referral Service (CARS) was funded on a full-time basis with a staff of two: Director and Administrative Secretary. On August 1, 1984, a Director was appointed and CARS moved into two offices at 1805 Roma.

The primary goal for the first year of operation was to inform the University community that an employee assistance program had been established on campus, one which provided free, confidential counseling and assistance for UNM employees and their families, and a service to supervisors who might need to refer employees with persistent job performance problems.

Two major vehicles were used to publicize the program: orientation sessions, and a brochure describing the CARS operation.

1. From February, 1984, to June, 1985, 38 orientation sessions were offered to 375 employees (primarily in supervisory positions) on the main, north and south campuses, and at each of the branch colleges (see Appendix #1).

2. CARS brochures were mailed to approximately 5,000 permanent employees in the spring semester, 1985. The brochure described the program, and affirmed that confidentiality was guaranteed to all who used it (see Appendix #2).

In addition to orientation sessions on campus, the Director gave 30 CARS presentations to persons and organizations in the community; attended eleven workshops, five regional conferences, three UNM training sessions, ten Grand Rounds at the School of Medicine; completed one post-graduate Counselor Education course; and participated in 43 professional activities including speaking engagements, networking meetings and University committee assignments (see Appendix #3).

B. During the period from July 1, 1984, to June 30, 1985, 412 in-person contacts were made in the CARS office (see Appendix #4). Counseling sessions were held with 346 new or former clients and 66 consultations were held with supervisors. 291 clients were seen individually, 25 as couples, and five as families of three or more persons.

Two-thirds of the clients were females; the primary presenting problem concerned the family and spouse, followed by alcoholism and related job issues; professional staff and clerical employees constituted .80 of the case load, faculty another .16; most clients had worked at the University for five or fewer years; two-thirds were between ages 30-39; one-half were married and one-third separated or divorced; and two-thirds were Anglo, one-quarter Hispanic (see Appendix #5).

Supervisor-initiated referrals accounted for .15 of the caseload; of those employees, nine were referred to an in-patient treatment facility and placed on a performance agreement with the University. Of this group, two were subsequently

terminated by the University, two resigned (including one tenured faculty member), and five are still employed.

C. In 1982, a Committee of Concern was appointed by Provost Hull to act in an advisory capacity to the Director of CARS. During 1984-85, the original committee of eleven members (representing faculty and administration) was expanded to include professional staff representation and a member of the CWA (see Appendix #6). The committee met on six occasions to review and discuss a variety of problems and operations within the CARS program. The committee was chaired by Professor Richard Metzler.

II. Significant Plans and Recommendations for 1985-86

A. CARS needs to continue publicizing the program through yearly mailings of brochures and orientation sessions for both supervisors and employees.

B. CARS needs identification on campus as the University's Employee Assistance Program so that employees are clear as to where they can find professional assistance with personal problems.

C. A decision about which administrative unit CARS shall report to needs to be made. (Historically, CARS has reported to the Provost, although CARS services extend to all UNM organizations, many of which report to other administrative units.)

D. A number of matters related to the termination of dysfunctional employees (especially professors with tenure) need review by University Council, the Academic Freedom and Tenure Committee, and other University constituencies. In

particular, clear, written procedures need to be drafted for inclusion in the Faculty Handbook.

E. To date, the client load has not been so excessive that one counselor could not handle it. However, if the client load increases by another 150-200 persons, it will either be necessary to hire a part-time counselor, or turn employees away.

III. Appointments to Staff

In June, 1985, Pauline Hamilton was hired as Administrative Secretary to the Director of the CARS program.

IV. Separations from Staff

Effective July, 1985, Doris Muth retired from the position of Administrative Secretary to the Director of the CARS program.

V. Publications

None.

VI. Outside Professional Activities

(see Appendix #3)

VII. Research

None.

CARS ORIENTATION SESSIONS
February, 1984 - June, 1985

College of Fine Arts	February 7, 1984
NMERI	April 3, 1984
Physical Plant (2X)	April 5, 1984
Comptroller's Managers Meeting	April 10, 1984
Physical Plant	April 11, 1984
BCMHC - Central Cities Outpatient	April 16, 1984
Vice President for Student Affairs, Alumni and Development	April 24, 1984
PAC	April 25, 1984
Police and Parking Services	May 15, 1984
Admissions and Records	May 16, 1984
Student Mental Health Center	September 5, 1984
La Posada Dining Room Management	September 6, 1984
College of Engineering	September 12, 1984
Zimmerman Library	September 20, 1984
BCMHC-Manager's Meeting	September 24, 1984
Mental Health Center	October 10, 1984
Dean's Council	October 11, 1984
Arts and Science	October 15, 1984
Zimmerman Library Staff (2X)	October 16, 1984
Dean of Students	October 18, 1984
Zimmerman Library Staff	October 23, 1984
Financial Aids	October 30, 1984
Graduate School	November 5, 1984
Printing Plant	November 15, 1984
Computer Center	November 21, 1984
College of Nursing - Staff	November 28, 1984
College of Nursing - Faculty	December 3, 1984
Student Health Center	December 4, 1984
Personnel Department	December 11, 1984
Instructional Media	December 13, 1984
Medical Center Library	January 8, 1985
School Relations	January 21, 1985
KNME	January 22, 1985
College of Education	February 19, 1985
MEDCAP (School of Medicine)	February 20, 1985
University of New Mexico Hospital	May 20, 1985

WHAT IS CARS?

CARS (Counseling, Assistance and Referral Service) is an employee assistance program which the University of New Mexico makes available to permanent faculty and staff. It provides an accessible and confidential setting in which employees and their families can discuss freely problems that are affecting their personal lives or job performance.

WHY IS CARS NEEDED?

All of us, regardless of our positions in the University, face a variety of problems in our daily lives. Usually, we can work them out. Sometimes our problems become too much for us to handle, and they affect our personal happiness, our family relations, our performance at work, and even our health. When this occurs, we often need professional help in resolving them. Without proper attention, these problems usually become worse, and the consequences are often unpleasant and expensive.

CARS specializes in helping individuals and families through:

- problem assessment
- short-term counseling
- consultation
- referral resources

HOW DOES CARS WORK?

CARS functions directly or through a referral system to help employees with personal problems including marital, family or relationship difficulties, financial or legal problems, stress and emotional difficulties, or problems caused by alcohol and drug abuse.

- The request for help may be initiated by the employee or the family. Simply call the CARS office and an appointment with a professional counselor will be arranged. **Confidentiality is assured.**
- When a job performance problem occurs, your supervisor may also encourage the use of CARS in order to determine if personal problems may be interfering with the job. Participation in the program is voluntary; however, whether the offer of help is refused or accepted, if job performance or attendance problems continue, regular corrective procedures may apply.

IS CARS REALLY CONFIDENTIAL?

Yes! Your voluntary contact with CARS is strictly confidential; no records are kept; and neither your employer nor your co-workers will have any knowledge of your request for help. Even if your supervisor asks you to utilize CARS, the nature of your personal problem will remain completely confidential.

The intent of CARS is not to intrude into the private lives of University employees but rather to provide services for those who choose to request help with their problems.

WHAT ARE THE COSTS?

The initial problem assessment and counseling services provided directly by CARS are free to all employees and family members. However, fees and expenses incurred as a result of community referrals are the responsibility of the employee. Insurance may be used when applicable; if services not covered by insurance are necessary, the counselor will try to help the employee minimize the cost by making referrals to the most appropriate agency. When applicable, sick leave, annual leave, or leave of absence may be used.

HOW DO I MAKE AN APPOINTMENT?

CARS is located in Rooms 107–109 at 1805 Roma on the main campus. If requested, appointments may be arranged at other locations. CARS is open from 8:00 a.m. to noon and 1:00 p.m. to 5:00 p.m. daily. After-hours appointments are also possible. Call 277-6868 for further information or to schedule an appointment; an answering machine will take messages at night and on weekends.

PROFESSIONAL DEVELOPMENT
Ilse Gay, Director, CARS
1984 - 1985

Conferences

EAP's In Higher Education Denver, CO	10/2/84
Regional Conference on Children of Alcoholics Los Angeles, CA	11/1-4/84
DayBreak EAP Conference Albuquerque, NM	2/7-8/85
NMACD Annual State Convention Santa Fe, NM	3/7-8/85
Western Institute on Addictions Albuquerque, NM	5/23/85

Workshops

Adult Children of Alcoholics Amethyst Hall, Espanola, NM	8/24/84
Milton Erickson Institute Albuquerque, NM	9/14/84
Grief and Depression Vista Sandia Workshop, Albuq. NM	10/13/84
Child Sexual Abuse: Victims and Offenders Albuquerque, NM	11/13/84
A Model for Brief Therapy Albuquerque, NM	1/23-25/85
Wellness and Counseling Albuquerque, NM	10/2/85
Rational Behavior Therapy Albuquerque, NM	2/28 - 3/1/85
A Framework for Family Therapy Minuchin Conference Albuquerque, NM	3/22-23/85
Treating Chemically Dependent Women: Issues and Answers Albuquerque, NM	4/25-26/85

Workshops

Human Sexuality; HED Albuquerque, NM	5/28-29/85
Treating Chemically Dependent Women (HED) Santa Fe, NM	4/25-26/85

Training Seminars

Discipline and the Problem Employee UNM Management Albuquerque, NM	9/21/84
Introduction to Micro Computers UNM, Albuquerque, NM	11/14/84
Psychological Profiles UNM Management Albuquerque, NM	5/16/85

Grand Rounds--Dept. of Psychiatry

Dean Napolitano on the History of the School of Medicine	9/7/84
Adolescent Drug Abuse	10/5/84
Depression	10/12/84
Panel on Mental Health in Other Countries	10/19/84
Homicide and Depression	10/26/84
Mental Illness	11/30/84
Follow-up on New Mexico State Penitentiary Hostages	12/7/84
Danger with Psychiatric Patients	1/11/85
Issues with the Only Child	2/1/85
Multiple Personality and Family Violence	3/15/85

Counselor Education Course

Wilderness Counseling Rio Grand River, NM	6/10-14/85

Appendix #3

Appendix #4

UNM CARS STATISTICS 1984 - 1985

MONTH	TOTAL IN-PERSON CONTACTS	PURPOSE		NEW	FORMER	TYPE OF COUNSELING			MALE	FEMALE
		CONSULT	COUNSEL			IND	CPL	FAM		
JULY	9	0	9	4	5	9	0	0	6	3
AUG.	31	6	25	9	16	23	1	0	12	13
SEPT.	24	5	19	9	10	15	2	0	8	11
OCT.	36	8	28	12	16	26	1	0	15	13
NOV.	30	9	21	6	15	21	0	0	6	15
DEC.	21	3	18	10	8	14	2	0	4	14
JAN.	29	0	29	8	21	29	0	0	14	15
FEB.	17	1	16	6	10	14	1	0	4	12
MARCH	42	3	39	17	22	31	4	0	16	23
APRIL	78	12	66	19	47	46	8	4	23	43
MAY	64	10	54	18	36	43	5	1	15	39
JUNE	31	9	22	6	16	20	1	0	5	17
TOTALS	412	66	346	124	222	291	25	5	128	218

UNM CARS DEMOGRAPHICS 1984-1985

		Totals
Primary Problem:	Alcohol/Drug	62
	Personal	24
	Family/Marital	104
	Job Related	44
	Psy./Emotional	8
	Physical	2
	Financial	4
	Legal	1
	Career/Occup.	14
Employment Status:	Clerical	71
	Custodial	6
	Prof. Staff	69
	Faculty	29
	Tech.	9
	Other	9
Length of Employment: (yrs)	0-5	82
	5-10	24
	10-20	21
	Over 20	4
Age:	20-29	32
	30-39	67
	40-49	40
	Over 50	33
Marital Status:	Married	113
	Single	42
	Div./Separated	74
	Widowed	1
Ethnicity:	Hispanic	47
	Anglo	124
	Black	3
	Native American	2
	Other	5
Referred by:	Self	58
	Supervisor	16
	Other (colleagues family, etc.)	36
Gender:	Male	134
	Female	225

Note: The demographic information contained on this page is incomplete as different reporting systems were being tested and developed during 1984-85.

COMMITTEE OF CONCERN 1984-85
ROSTER

Pat Abbott, M.D., Clinical Director
Alcoholism Division, Bernalillo County Mental Health Center

Phillip Alarid, Assistant Vice President for Business/
Director of Personnel

Kathryn Brooks, Director
Women's Center

Richard Cady, Director
Institutional Research

Ilse Gay, Director
Counseling, Assistance and Referral Service

Joel Jones, Associate Provost
Academic Affairs

Tom Hunter, Painter II
Remodeling

Donald McRae, Dean
College of Fine Arts

Juanita Meade, Administrative Assistant
College of Education

Richard Metzler, Associate Dean
College of Arts and Sciences

Richard Papenfuss, Coordinator
Health Education

Floyd Williams, Director
Physical Plant

Richard Williams, Associate Dean
College of Engineering

THE REPORT OF THE COLLEGE OF ARTS AND SCIENCES

July 1, 1984 - June 30, 1985

F. Chris Garcia, Dean

COLLEGE OF ARTS AND SCIENCES

Annual Report, July 1, 1984 - June 30, 1985

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The three half-time associate deans in the College of Arts and Sciences continued in their positions. The associate deans are Elinore Barrett (Department of Geography), Richard Metzler (Department of Mathematics and Statistics) and Julian "Bob" White (Department of Modern and Classical Languages). Donna Dionne was promoted to Assistant to the Dean II. Raquel Martinez and Virginia Ortiz, formerly Student Advisor III and Staff Assistant, respectively, became Administrative Assistants. Sherri Kessler was promoted to Student Advisor II.

In our Department of English David McPherson served as chairperson while Hamlin Hill was on leave. H. Laurence Ross' status as chairperson of our Department of Sociology was concluded, and Richard Coughlin was selected for a one-year term. Table 1 lists the chairpersons and program directors in the College of Arts and Sciences for 1984-85.

The Arts and Sciences Graduate Committee continued to develop and guide the procedures and responsibilities of the graduate program of the college. The committee was chaired by Associate Dean Richard Metzler. The annual report of the A&S Graduate Committee is appended below. The following A&S committees also functioned during the academic year (Table 2):

Curriculum and Academic Programs Committee
Graduate Committee
Human Subjects Committee
Presidential Lectureship Selection Committee
Presidential Professorship Selection Committee
Promotion Committees for the Humanities, Social Sciences, and Natural Sciences and Mathematics

Southwest Studies Committee
Tenure Committee
Teaching Resources Committee
A&S Interdisciplinary Committee on Latin American Studies

II. ACADEMIC STANDARDS AND PROGRAMS

A&S Faculty Action During the Year 1984-85

The Arts and Sciences faculty took the following actions:

(1) Approved an M.A. degree concentration in American Western History.

(2) Approved a minor in Human Services (Department of Psychiatry) which can be used in conjunction with a major in Psychology.

(3) Approved a minor in Military Science, which added the Air Force and Army programs to our previously accepted Naval Science minor.

(4) Approved a minor in Womens Studies.

(5) Approved a minor in Afro-American Studies.

(6) Approved the establishment of an Institute for Public Policy within the Department of Political Science.

The proposal to reform the General Education requirements of the college was revised by the Curriculum and Academic Programs Committee and presented to the general faculty. After review by the faculty it was referred back to the committee for further consideration and revision.

III. RESEARCH AND SCHOLARLY ACTIVITY

The faculty of the College of Arts and Sciences has continued its high levels of research and scholarly investigations. The research and

publication record of the faculty for 1984-85 is provided in detail in the appended departmental reports. New research and training grants for 1984-85 plus funded renewals number a total of 163 grants. (Please see Table 14.) Faculty members involved as principal investigators of these grants numbered 91. These grants totaled $9,455,738 and brought in to the university approximately $986,160 in overhead. The college's leading departments in descending order of new research monies were:

Departments	X $1,000
Physics	$2,612
Biology	1,227
Geology	1,195
Chemistry	922
Office of Contract Archeology	852
Anthropology	727
Institute of Meteoritics	655

Sixteen of our 20 academic departments plus most of our other operating institutes, museums and offices secured outside research monies.

One of the most important benefits of outside funding is the support given to graduate students. Table 15 shows the distributions of GAs and TAs among departments as well as graduate trainees, research assistants and project assistants supported by outside funds.

The list of continuing or new A&S-related scholarly periodicals includes The Auk: A Quarterly Journal of Ornithology, John Wiens, editor; Blake/An Illustrated Quarterly, Morris Eaves, editor; Comparative Social Research, Dick Tomasson, editor; Hispanic American Historical Review, John Johnson, editor; Journal of American Poetry, Peter White and Lee Bartlett, editors; The Journal of Anthropological Research, Philip Bock, editor; Journal of Chinese Studies, Fred G. Sturm, editor; Latin American Research Review, Gilbert Merkx, editor;

New America: A Journal of American and Southwestern Cultures, Mary Dougherty-Bartlett and Charles Biebel, co-editors; The New Mexico Historical Review, Richard Etulain, editor; Shakespeare Studies, Barry Gaines, co-editor; The Southwestern Review of Management and Economics, Roger Norton and William Peters, editors.

A new research organization, the Institute of Public Policy, was created in the Department of Political Science. Other research organizations in the college included the Institute of Meteoritics, the Office of Contract Archeology, and the Institute of Modern Optics. In addition, A&S college faculty were closely involved with the operation of two research institutes under the direction of the Office of the Provost. The Latin American Institute (LAI) involved a great many Arts and Sciences faculty. Executive director of LAI is Professor Gilbert Merkx of the Department of Sociology. The associate director and academic coordinator was Jon Tolman of the Department of Modern and Classical Languages. The academic coordinator also serves as chairperson of the combined A&S Dean's Advisory Committee on Latin American Studies and the Interdisciplinary Committee on Latin American Studies. Arts and Sciences' faculty, staff and students were also closely involved in the activities of the Southwest Hispanic Research Institute (SHRI).

IV. HIGHLIGHTS FROM STATISTICAL TABLES

Table 5 reveals that contrary to popular impression and the experience of many other colleges of arts and sciences, the number of students enrolling as liberal arts majors continues to increase in our

college. The number of A&S majors increased by 3.1% in Semester I and by 1.4% in Semester II.

Although total student credit hours (Table 6) generated by the College of Arts and Sciences decreased slightly this past year, the college continues to generate well over half (52.1%) of the total student credit hours produced by all units of the University of New Mexico.

The large number of students on probation (Table 11) led to a revision of the admission and probation policies by the College of Arts and Sciences. This resulted in a 50% decrease in the number of students on probation the first semester of the 1984-85 academic year. There is also some indication that the pattern of student preferences for various disciplines was changing, as the humanities and social sciences gained enrollment over the previous year following a period of stability or decline for several years (Table 7).

V. CONTINUING PROBLEMS AND PROSPECTS

Virtually all of the problems reported in the past few annual reports continue to detract from the quality of our performance and productivity in teaching, research and service.

(1) Salaries

The salaries of faculty and staff continue to sink relative to cohorts in comparable positions outside the university. Beginning faculty salaries remain roughly competitive, but the gap between salaries we can offer continuing faculty and those available from outside institutions, both in the private and academic sectors, is

becoming critically large. The past year the college lost a dozen faculty, including four from our outstanding Department of Anthropology, because we were unable to meet the offers of competitive institutions. The salary problem is particularly acute among senior professors, especially in such high demand areas as applied mathematics and statistics, chemistry, physics and economics. The "market compression" of salaries is reaching a very critical point, as some senior faculty find their salaries close to those offered to new faculty members. Graduate assistant stipends also remain below those of comparable institutions causing considerable difficulty in attracting the best graduate students to our college. The salaries of our non-faculty staff are also generally below levels for comparable work off this campus, resulting in low morale and a significant turnover rate due to loss to these other organizations.

The lack of adequate pay for chairpersons who perform administrative duties during the summer continues to be a problem. Most other institutions, including our sister institutions in this state, pay administrative stipends of an additional 1/9 or 2/9 annual salary to chairpersons who administer their departments during the summer. A substantial amount of work, especially in our large departments, necessarily must be carried out by chairpersons at the end of the academic year as well as prior to the new academic year. Prior to 1981 virtually no A&S chairs were paid at all for their administrative duties performed during the summer. In the 1980-81 year a start was made towards remedying this inequity. This practice continued into the past year with chairs being paid a very inadequate amount, ranging from five per cent to 11 per cent. As our enrollments continue to grow and our increased funded research requires more

management, we must make every effort to provide fair and just compensation to our chairpersons.

(2) Faculty and Staff Shortages

Based on data provided by our departments, our college continues to be extremely short of faculty and support staff. In 1983-84 we requested an additional 22.67 faculty FTEs, 24.25 graduate assistants and 15.05 staff/clerical positions. Because the 1984-85 academic year brought only the addition of a couple of additional staff and faculty, the college still needs the requested number of additional positions. Several of our departments continue to be critically short of secretarial/clerical/technical assistants. This shortage imposes serious difficulties on the production and management of instructional and research materials. Even though we continue to secure some additional automated and computerized research and office equipment, such as microcomputers and word processors, this paradoxically has compounded the need for additional staff support.

Many more graduate and research teaching assistantships are needed in the college. Virtually no monies specifically designated for increasing the number of GAs/TAs have been allocated to the College of Arts and Sciences for over a decade.

(3) Equipment Maintenance Funds

Equipment maintenance funds continue to be virtually nonexistent. Several expensive and necessary pieces of instructional and research equipment have been obtained over the past few years, largely through the efforts of our faculty scholars, the assistance and consideration of the associate provost for research and state funding agencies. Yet very little money has been available for the maintenance and upkeep of this equipment. Because of the inevitable deterioration of mechanical and electronic equipment, some of it either has been rendered useless

due to lack of maintenance, or wherever possible, faculty have been taken away from their instructional and research duties to function as maintenance service personnel. Funds are needed to hire technicians to maintain expensive equipment, to purchase replacement parts and to secure service contracts and warranties. Very little of our equipment is covered by service contracts because of their expense, and yet not having these is a false economy since it results in lost time in instruction and research when equipment breaks down.

(4) Supplies and Equipment

The financial resources available for purchasing supplies and equipment are critically and increasingly inadequate. Our departments typically run out of money for long distance telephone usage, photocopying, office supplies and materials before the school year is over. This situation has continued to grow progressively worse every year. At least a 50 per cent increase in these operating expenses is needed to support minimally our operations.

(5) Computer Usage

Both the faculty and staff of the college increasingly are employing computers as aids in office management, word processing and research. Although several units have purchased "stand alone" microcomputers as funds have become available, there is still a great deal of dependence upon university computing facilities. Although in the 1984-85 year $606,600 worth of computer usage was appropriated, this amount will have to be increased substantially due to increased computer use. The situation will continue to become more critical as more faculty and staff use the computer in their work. The allocation of microcomputers to faculty by the Office of the Provost was greatly appreciated, and we applaud and encourage the continuation of this policy.

(6) Travel Monies

Money for travel to professional conferences and seminars continues to be embarrassingly inadequate. Our faculty members are expected to be aware of the latest developments in their profession and to present their own latest research findings to their colleagues. This is particularly important at an emerging but somewhat geographically isolated university such as UNM. Yet travel support for professional conferences is minimal. During the 1984-85 academic year money available for professional travel was less than $100 per full-time faculty equivalent.

(7) Affirmative Action

The college continues to be committed to the principles of affirmative action. Although in general we remain substantially below our goals in hiring women and ethnic minority faculty, some progress has been made. We were very pleased that of our 27 faculty hired during the 1984-85 academic year, 11 were females and three were ethnic minorities (Hispanic). Continued efforts in this direction will be made.

(8) Physical Plant Space

We continue to be short of building space. Additional office spaces for instructional staff as well as for our teaching and research laboratories are badly needed. Our science departments, especially Biology, Chemistry, Physics/Astronomy and Psychology, must be provided with additional laboratory and office space to meet the increased demands upon them and the increased research activity by faculty in those areas. Some of our social science facilities, such as those in Anthropology, Economics, Political Science and Speech Communication, are also inadequate. Lack of space for the Department of Mathematics and Statistics also continues to be critical.

(9) Centers of Technical Excellence

Several departments in our college have been significantly affected by the supplemental appropriations being made available for the development of centers of technical excellence. Most involved in the activities of the Center for High Tech Materials will be our Department of Physics and its Institute of Modern Optics in addition to our Departments of Chemistry and Mathematics and Statistics. Dean Garcia serves as a member of the center's steering committee, which has the prime responsibility for supervising our centers of technical excellence at this university.

(10) Cooperation with National Laboratories

During the year, several meetings and conferences were held with representatives from Sandia National Laboratories and, to a lesser extent, Los Alamos National Laboratories. Dean Garcia serves as a member of a joint working group which is exploring, among other things, joint research projects, the appointment of jointly funded research professors, provision of televised courses to the laboratories, initiation of a distinguished professorship program, shared research equipment and other related activities.

(11) Reorganization of the College

At the request of the provost, the chairpersons of our departments of science and mathematics prepared a proposal concerning the feasibility of a separate college of science and mathematics. The report was sent forth to the offices of the provost and the president for further consideration and/or action. A proposal for a "vice-dean for the sciences" was reintroduced to the central administration as a possible organizational response to the needs of our science and math departments.

VI. DEPARTMENTAL REPORTS

The appended reports of our 20 departments plus several divisions, institutes and offices of our college are an integral part of this report. They deal with matters of curriculum review and change, space problems, the scholarly activities of members of their faculty, service in professional societies, scholarly meetings held or to be held at UNM, special instructional programs, special research activities, visiting scholars and lecturers, activities designed for the general public and the successes and frustrations uppermost in departmental consciousness. Although these reports are an integral part of the A&S annual report, they are not reproduced in every copy of this report because of their bulk. Readers who want a complete view of this decentralized college are invited to borrow copies of any or all departmental reports from the Arts and Sciences college office, the secretary of the university or the department itself.

The academic year 1984-85 witnessed the first year of the newly approved bachelor's degree program in biochemistry. This inter-college undergraduate major experienced a successful first year. A report of this program is found in the annual report of the Department of Biochemistry in the School of Medicine, which is included with the departmental reports from the college.

ANNUAL REPORT OF THE A&S GRADUATE COMMITTEE
Richard C. Metzler

The A&SGC met once during the fall semester and once during the spring semester. The A&SGC has two representatives to the Senate Graduate Committee and selects one each year for a two-year term. Our representatives in 1984-85 were Professor Cary Morrow of Chemistry (who served as chairman of the Senate Graduate Committee), Professor Barry Gaines of English, and Professor Richard Allen of Mathematics and Statistics (replacing Professor Morrow as second representative from A&S). In addition, the committee exchanged representatives with the College of Education Graduate Committee; Dick Metzler served in this capacity in 1984-85.

Following are summarized minutes of the A&SGC meetings for 1984-85.

September 21, 1984

Dick Metzler was re-elected chairman of the committee and Professor Richard Allen was chosen as the representative to the Faculty Senate Graduate Committee to replace Professor Cary Morrow (Professor Morrow had been elected to the chairmanship of the Senate Graduate Committee). Professor Morrow explained that, due to the "tutorial" nature of graduate work in Chemistry, the Chemistry Department often ran afoul of the "maximum hours with a single professor" restriction. The committee voted to support the Chemistry Department's position. The proposed revision of the ten-year rule on expiration of graduate credits was discussed next and the committee supported the doctoral portion and asked for clarification on the part relating to the master's degree.

The committee approved a request from the French section of the Department of Modern and Classical Languages that a student be admitted to graduate study without a bachelor's degree. There was discussion concerning the minimum number of 500-level courses required for the Ph.D. General opinion was that the regulation causes problems for several departments.

SUBCOMMITTEE ACTIVITIES

The subcommittee on faculty served as the dean's advisory committee on sabbatical leave requests and met several times in September and January.

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ANNUAL REPORT ON SUMMER SESSION
Richard C. Metzler

In November 1984, the departments submitted their summer budget requests to the College of Arts and Sciences. These came to a total of $586,415 as calculated in terms of 1984 salaries.

In April the college was allocated $589,223 plus an extra amount for the new Southwest Institute. Since the revised estimates from the departments put us over budget, we made up the deficit by paying three chairs from the 1984-85 regular year budget.

Our student credit hour total was down 4.4% from the previous summer. Since formula funding for the summer school is presently being phased in, our future compensation from the BEF will depend on the number of student credit hours that are generated. The college will be paying very close attention to summer course enrollments.

The International Programs in Mexico and Spain enrolled 17 and 19 students respectively. The French summer school at Montezuma had 36 students at junior level and above. The German summer school celebrated its tenth year by conducting a symposium; the regular session enrolled 90 students in upper-level and graduate courses.

Professor Jerry Williams of Geography organized an interdisciplinary program focused on the Rio Arriba-Rio Abajo region. It was called the Southwest Institute and enrolled 78 students in the lecture portion, 45 of whom participated in the field sessions. By all reports, it was extremely successful, and it is hoped that it can be made a permanent part of the summer offerings.

ANNUAL REPORT ON TRAVEL
Richard C. Metzler

The 1984-85 travel budget was $36,750, an amount less than $100 per full-time faculty equivalent. It appears that the college allocation of 60% of the lowest unrestricted fare is too small; faculty members who would have to pay 40% of air-fare and exorbitant living expenses cannot afford to travel. The percentage allocation should be increased but, due to the small appropriation from the legislature, next year's budget for travel has been drastically reduced from this year's.

The college has entered into an agreement with the new travel agency located in the Student Union Building. The organization, Rio Grande Travel Centers, Inc., has agreed to donate one per cent of the amount spent for tickets by college personnel to an Arts and Sciences Scholarship Fund.

The 1985-86 travel budget is $20,805, which represents a 43% decrease from the present year and is, indeed a 50% decrease from the 1981-82 budget (which was by no means generous). It is anticipated that the budget will be totally committed by the first of the new year. This situation, for a geographically isolated university, is intolerable; we are in a position of positively discouraging faculty from interacting with their professional colleagues.

ANNUAL REPORT OF THE A&S ADVISEMENT CENTER

Julian E. White, Jr.

For all practical purposes the Arts and Sciences Advisement Center ceased to exist as a separate administrative entity during the 1984-85 academic year. At the requests of both the advisement center personnel and the A&S advisers/record keepers, in order to afford more variety of daily work assignments and to minimize repetition, we have eliminated our former system of specialists and all A&S advisers are now "generalists." In the former organization, the advisement center concentrated on advising students who were not yet admitted into the college, while the advisers in the college office advised students who are in A&S, maintained student records, compiled graduation lists, processed transfer students, readmits, admissions from University College, etc. Of course there was always a good deal of "overlap" of tasks and each group helped the other at the various peak periods of the academic year. For instance, the advisement center had already almost completely taken over the job of grade posting. During the Fall semester, all advisers began accomplishing all tasks. Students currently enrolled in the college were divided alphabetically into seven groups of equal size--one group for each of the seven FTE positions. Each adviser is now responsible for all record-keeping and paper work for his/her section of the alphabet and generally also performs personal advisement for those students. Of course, students are free to seek personal advisement from an adviser of their choice in the case of those who have already established a relationship with one of the advisers. Also, during the peak periods of preregistration, when we see as many as 1,000 to 1,200 students a week, students are

advised on a first come first served basis without regard to alphabet, so as to speed up the procedure and avoid having students waiting in line any longer than is absolutely necessary. We are quite pleased so far with the results of this change. All paperwork is being handled efficiently and expeditiously and about 15,000 students were advised personally with a minimum of delay. Phone advisement remains at about 20,000 calls annually.

One or more advisers, as usual, participated in such extramural activities as the Career Fair, Advisement Centers' Update Conference, Pre-Med Day, advisement sessions at the Gallup, Valencia, Los Alamos Branches, Adult Re-Entry Committee, monthly meeting of Advisement Centers, annual ACT Conference, College Enrichment Program Orientation, etc. All advisers now participate, on a rotation basis, in Health Sciences Advisory Committee interviews for medical school and dental school applicants.

1984-85 saw major changes in advisement personnel: Polly Keightley was replaced by Karen Koletar, Diane Rawls was replaced by Linda Hawley, Raquel Martinez was replaced by Shari Kessler.

TABLE 1

CHAIRPERSONS AND PROGRAM DIRECTORS, 1984-85

Departments

AMERICAN STUDIES
Marta Weigle

ANTHROPOLOGY
Linda Cordell

BIOLOGY
Donald W. Duszynski

CHEMISTRY
Riley O. Schaeffer

COMMUNICATIVE DISORDERS
Richard Hood

ECONOMICS
Alfred L. Parker

ENGLISH
Hamlin Hill (Leave)
David McPherson (Acting)

GEOGRAPHY
Stanley Morain

GEOLOGY
Rodney C. Ewing

HISTORY
Janet Roebuck

JOURNALISM
Robert H. Lawrence

LINGUISTICS
Alan J. Hudson-Edwards

MATHEMATICS AND STATISTICS
David Sanchez

MODERN AND CLASSICAL LANGUAGES
Tamara Holzapfel

PHILOSOPHY
Fred G. Sturm

PHYSICS AND ASTRONOMY
R. Marcus Price

POLITICAL SCIENCE
Paul L. Hain

PSYCHOLOGY
Douglas P. Ferraro

SOCIOLOGY
H. Laurence Ross

SPEECH COMMUNICATION
Kenneth D. Frandsen

Programs

ASIAN STUDIES
Jonathan Porter

COMPARATIVE LITERATURE
Joseph Zavadil

EUROPEAN STUDIES
M. Jane Slaughter

FRESHMAN ENGLISH
Michael Hogan

IBERO-AMERICAN STUDIES
Jon M. Tolman

INSTITUTE OF METEORITICS
Klaus Keil

INSTITUTE OF MODERN OPTICS
Marian O. Scully

LATIN AMERICAN STUDIES
Jon M. Tolman

MAXWELL MUSEUM
J.J. Brody

OFFICE OF CONTRACT ARCHEOLOGY
Joseph C. Winter

PALEOECOLOGY
Roger Y. Anderson

RUSSIAN STUDIES
Natasha Kolchevska

TABLE 2

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STANDING AND SPECIAL COMMITTEES,
COLLEGE OF ARTS AND SCIENCES, 1983-84

A&S Committee on Curriculum and Academic Programs

Phil Bock, Anthropology, Chairman
Pham Chung, Economics
Clifford Crawford, Biology
Paul Davis, English
Russell Goodman, Philosophy
Richard Harris, Psychology
Walter Kyner, Mathematics and Statistics
Susan Place, Geography
Ferenc Szasz, History

A&S Graduate Committee

Richard C. Metzler, Arts and Sciences, Chairman
Charles Biebel, American Studies
Richard Barrett, Anthropology
Rex Cates, Biology
Cary Morrow, Chemistry
Linda Riensche, Communicative Disorders
Barry Gaines, English
Bradley Cullen, Geography
Barry Kues, Geology
Peter Bakewell, History
John Oller, Linguistics
Richard C. Allen, Mathematics and Statistics
Pelayo Fernandez, Modern and Classical Languages
Brian O'Neil, Philosophy
David King, Physics and Astronomy
Martin Needler, Political Science
Philip May, Sociology
John C. Condon, Speech Communication
Charlene McDermott, Office of Graduate Studies
Mari-Luci Jarmillo, College of Education
D. Archibald McCallum, Graduate Student Association

A&S Human Subjects Committee

Henry Harpending, Anthropology, Chairman
Samuel Roll, Psychology
Jay Sorenson, Political Science
Priscilla Thompson, Community Representative
Charles Woodhouse, Sociology

A&S Interdisciplinary Committee on Latin American Studies

Jon Tolman, Modern and Classical Languages, Chairman
Peter Bakewell, History
Erlinda Gonzales-Berry, Modern and Classical Languages

Peter Gregory, Economics
Karen Remmer, Political Science
Susan Tiano, Sociology

A&S Presidential Lectureship Selection Committee

Elinore M. Barrett, Arts and Sciences, Chairperson
Kenneth D. Frandsen, Speech Communication
Richard C. Metzler, Arts and Sciences
Marc Price, Physics and Astronomy
Fred G. Sturm, Philosophy
Julian E. White, Jr., Arts and Sciences

A&S Presidential Professorship Selection Committee

Clinton Adams, Art
Ferrel Heady, Public Administration
Gerald May, College of Engineering
John Perovich, President Emeritus
Morgan Sparks, Former dean of Anderson Schools of Management
Chester C. Travelstead, Provost Emeritus
Dudley Wynn, Dean Emeritus

A&S Promotion Committee for the Humanities

Charles McClelland, History, Chairman
Robert Fleming, English
Sam Girgus, American Studies
George Peters, Modern and Classical Languages
Howard Tuttle, Philosophy

A&S Promotion Committee for the Natural Sciences and Mathematics

Douglas Brookins, Geology, Chairman
Richard Allen, Mathematics
Howard Bryant, Physics and Astronomy
Peder Johnson, Psychology
Lloyd Lamb, Communicative Disorders
David Ligon, Biology
Bob Paine, Chemistry

A&S Promotion Committee for the Social Sciences

Patricia Draper, Anthropology, Chairperson
Iven Bennett, Geography
Albert M. Church, Economics
John C. Condon, Speech Communication
George Huaco, Sociology
Peter Lupsha, Political Science
John Oller, Linguistics

A&S Southwest Studies Committee

Charles Biebel, American Studies, Co-Chairman
Jerry Williams, Geography, Co-Chairman
Linda Cordell, Anthropology
Tim De Young, Public Administration
Tobias Duran, Southwest Hispanic Research Institute
Douglas George, Art
Erlinda Gonzales-Berry, Modern and Classical Languages
Richard Griego, Mathematics and Statistics
Ted Jojola, Native American Studies
John Kessell, History
Barry Kues, Geology
William Martin, Biology
Michel Pillet, School of Architecture
Jose Rivera, Southwest Hispanic Research Institue
Marta Weigle, American Studies
Jim Wright, Fine Arts Library

A&S Tenure Committee

Charles Beckel, Physics and Astronomy, Chairman
Douglas Brookins, Geology
Stuart Burness, Economics
Dolores Butt, Communicative Disorders
Patricia Draper, Anthropology
Richard Harris, Psychology
Charles McClelland, History
Claude-Marie Senninger, Modern and Classical Languages

A&S Teaching Resources Committee

Jean M. Civikly, Speech Communication, Chairperson
Scott Altenbach, Biology
Jeffrey Davis, Mathematics and Statistics
Erlinda Gonzales-Berry, Modern and Classical Languages
Fred Harris, Political Science

TABLE 3

FACULTY PROMOTIONS, TENURE, THIRD-YEAR TERM DECISIONS, RETIREMENTS, SEPARATIONS AND APPOINTMENTS, 1984-85

Promotions

To Full Professor:

Fritz Allen	Chemistry
Thomas Niemczyk	Chemistry
E.P. Papadopoulos	Chemistry
Edward Walters	Chemistry
Stan Morain	Geography
Albert Kudo	Geology
Peter Bakewell	History
Howard Rabinowitz	History
Bruno Hannemann	Modern and Classical Languages
Warren Smith	Modern and Classical Languages
Michael Zeilik	Physics and Astronomy
Karen Remmer	Political Science
William R. Miller	Psychology

To Associate Professor:

Erik Trinkaus	Anthropology
Jeffrey Grambling	Geology
Crayton Yapp	Geology
Fred Bales	Journalism
Charlie Steen	History
Donald Sullivan	History
Evangelos Coutsias	Mathematics
Diana Robin	Modern and Classica Languages
William Woodall	Speech Communication

Tenure

Erik Trinkaus	Anthropology
Jeffrey Grambling	Geology
Fred Bales	Journalism
Evangelos Coutsias	Mathematics and Statistics
Tey Diana Rebolledo	Modern and Classical Languages
Diana Robin	Modern and Classical Languages
Gary LaFree	Sociology
William Woodall	Speech Communication

Third-Year Decisions

Jane E. Caputi	American Studies
Vera L. Norwood	American Studies
Carlos J. Bustamante	Chemistry
Mark R. Ondrias	Chemistry
Scott P. Sanders	English
Edward J. Bedrick	Mathematics and Statistics

Bernard Bassalleck	Physics and Astronomy
Janet E. Belew	Psychology
Rafael M. Diaz	Psychology

Retirements

Loren Potter	Biology
Sanford Cohen	Economics
Edwin Lieuwen	History
Anthony Hillerman	Journalism
Arthur Steger	Mathematics and Statistics
Howard Meier	Sociology
Charles Woodhouse	Sociology

Separations

Caroline Bledsoe	Anthropology
Patricia Draper	Anthropology
Henry Harpending	Anthropology
W. James Judge	Anthropology
Rex Cates	Biology
Wayne Swisher	Communicative Disorders
Patricia Oslund	Economics
Anne Boylan	History
Peter Kolchin	History
Robert Russell	Mathematics and Statistics
June Carter	Modern and Classical Languages
Patricia Murphy	Modern and Classical Languages
John Bellum	Physics and Astronomy
Gary Ritchey	Psychology

New Appointments

Anthropology:

Jane Lancaster	Associate Professor
Steven R. Nacham	Associate Professor

Biology:

Eric S. Loker	Assistant Professor
Diane L. Marshall	Assistant Professor

Communicative Disorders:

Jeffrey Davis	Lecturer III

Economics:

Barbara Conrad	Assistant Professor
Marie Sauer	Assistant Professor
Raymond Sauer	Assistant Professor

528 English:

Christopher Madigan	Assistant Professor

Geography:

Guy King	Assistant Professor

Geology:

Christopher Mawer	Assistant Professor

Linguistics:

Richard Janda	Assistant Professor

Mathematics and Statistics:

Pedro Embid	Assistant Professor
Michael Frazier	Assistant Professor

Modern and Classical Languages:

Suzanne Hanson	Lecturer III
Enrique Lamadrid	Assistant Professor
Lawrence Lynch	Associate Professor

Philosophy:

Andrzej Zabludowski	Assistant Professor
Eddy Zemach	Visiting Distinguished Professor

Physics and Astronomy:

Stephen Gregory	Associate Professor
V.M. Kenkre	Professor
Harvey McIver	Assistant Professor

Political Science:

Hank C. Jenkins-Smith	Assistant Professor

Psychology:

Robin Smith	Assistant Professor

Sociology:

Tomas Atencio	Lecturer III
Jane C. Hood	Assistant Professor
David Montejano	Assistant Professor

TABLE 4

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FTE BUDGETED FACULTY, 1984-85

Department	Returning Faculty	New Faculty	Part-Time Instruction	GAs/TAs
American Studies	4.83	--	--	0.50
Anthropology	20.95	--	0.75	3.00
Biology	26.67	2.00	--	19.50
Chemistry	21.91	--	0.83	15.00
Communicative Disorders	7.87	--	0.81	1.00
Economics	17.64	1.00	0.72	4.00
English	33.52	3.00	7.40	22.00
Geography	6.25	2.00	--	1.50
Geology	14.61	1.00	0.73	6.50
History	24.17	2.00	--	7.00
Journalism	7.00	--	0.50	--
Linguistics	2.50	--	--	0.50
Mathematics & Statistics	35.84	4.00	6.52	11.50
Modern & Classical Languages	29.00	3.00	1.10	16.50
Philosophy	9.67	1.00	--	2.25
Physics & Astronomy	18.29	--	1.08	10.00
Political Science	12.15	3.00	1.52	2.00
Psychology	21.77	2.00	--	6.75
Sociology	14.30	1.00	--	2.50
Speech Communication	8.83	2.00	--	2.00
A&S Contingency	--	--	1.50	--
TOTAL	337.77	27.00	23.46	134.00

TABLE 5

NUMBER OF STUDENTS ENROLLED
COLLEGE OF ARTS AND SCIENCES

Year	Sem. I	% Inc. Over Prev. Year	Sem. II	% Inc. Over Prev. Year
1974-75	2,724	- 4.7	2,746	- 1.8
1975-76	2,684	- 1.5	2,756	0.4
1976-77	2,663	- 0.8	2,737	- 0.7
1977-78	2,582	- 3.0	2,602	- 4.9
1978-79	2,397	- 7.2	2,322	-10.8
1979-80	2,267	- 5.4	2,205	- 5.0
1980-81	2,099	- 7.4	2,350	6.6
1981-82	2,492	18.7	2,580	9.8
1982-83	2,725	9.3	2,896	12.2
1983-84	3,044	11.7	3,192	10.2
1984-85	3,139	3.1	3,238	1.4

TABLE 6

STUDENT CREDIT HOURS TAUGHT, UNM AND A&S

Year	Student Credit Hours UNM	Student Credit Hours A&S	A&S Percent of Total
1974-75	517,455	300,821	58.0
1975-76	461,641	285,551	61.9
1976-77	487,208	279,810	57.4
1977-78	476,229	267,786	56.2
1978-79	473,266	272,829	57.6
1979-80	495,039	279,666	56.5
1980-81	508,267	282,239	55.5
1981-82	516,956	280,455	54.3
1982-83	532,196	288,710	54.2
1983-84	520,439	272,416	52.3
1984-85	521,803	271,883	52.1
Change 1984-85 Over 1983-84	+ 1,364	- 533	
	+ 0.30%	- 0.20%	
Increase 1984-85 Over 1974-75	+ 4,348	-28,938	
	+ 0.84%	- 9.62%	

TABLE 7

STUDENT CREDIT HOURS BY DEPARTMENT

Department	1977-78	1978-79	1979-80	1980-81	1981-82	1982-83	1983-84	1984-85	% Diff. 1983-84 to 1984-85
American Studies	2,302	2,077	1,923	2,063	2,196	1,875	1,685	1,990	+18.10
Anthropology	10,861	9,758	9,611	8,674	8,304	8,129	7,685	7,203	- 6.27
Biology	21,863	20,458	20,690	20,783	19,841	19,355	20,326	16,542	-18.62
Chemistry	18,143	18,203	18,414	17,988	17,781	18,311	18,509	15,102	-18.41
Comm. Disorders	2,601	3,096	2,949	2,876	3,009	2,649	2,759	2,445	-11.38
Economics	13,899	15,369	17,346	18,136	16,784	15,744	16,220	14,245	-12.18
English	29,128	30,109	32,813	33,117	34,175	33,980	30,918	28,808	- 6.82
Geography	5,410	6,001	6,296	5,664	5,390	4,972	5,627	5,079	- 9.74
Geology	8,154	9,023	10,211	10,212	9,555	8,637	8,838	6,037	-31.69
History	19,960	21,192	19,598	17,924	17,344	15,674	15,795	15,340	- 2.88
Journalism	3,016	3,045	2,846	2,840	3,108	3,123	2,897	2,885	- 0.41
Linguistics	1,304	1,319	1,042	3,176	1,269	1,235	1,653	1,560	- 5.63
Math & Statistics	35,346	38,414	43,405	46,252	50,344	50,789	53,140	43,876	-17.44
Mod. & Class. Lang.	19,648	19,178	18,901	19,063	17,593	15,583	16,568	16,003	- 3.41
Philosophy	5,922	4,825	5,933	5,648	5,685	5,498	5,623	5,702	+ 1.40
Physics & Astronomy	11,731	12,278	12,998	14,009	14,812	14,742	14,676	13,345	- 9.07
Political Science	10,621	9,675	9,606	9,450	9,582	9,451	9,748	9,796	- 0.49
Psychology	24,275	25,358	22,080	20,607	22,447	21,601	22,564	21,431	- 5.02
Sociology	15,155	14,327	14,483	15,052	14,112	12,995	13,928	13,981	+ 0.38
Speech Comm.	8,328	9,124	8,521	8,705	8,222	8,215	7,840	7,471	- 4.71
TOTAL	267,665	272,829	279,666	282,239	281,553	272,558	276,999	248,841	-10.17

*Unusual figure due to 1980 Linguistics Institute.

TABLE 8

DEGREES AWARDED
COLLEGE OF ARTS AND SCIENCES

	Bachelor's Degrees		Advanced Degrees					
	No. of	% Inc. Over	Master's (a)		Doctor's		Total	
Year	Degrees	Previous Yr.	No.	% Inc.	No.	% Inc.	No.	% Inc.
1975	816	10.0	128	-16.8	64	-27.2	192	-20.6
1976	707	-13.3	128	0.0	74	15.6	202	4.2
1977	611	-13.6	159	24.2	69	- 6.8	228	12.9
1978	662	8.3	167	5.0	68	- 1.4	235	3.1
1979	577	-12.8	143	-14.4	55	-19.1	198	-15.7
1980	627	8.7	123	-14.0	58	5.5	181	- 8.6
1981	500	-20.3	121	- 1.6	73	25.9	194	- 7.1
1982	453	- 9.4	165	36.4	51	30.1	216	11.3
1983	523	15.5	153	- 7.3	55	7.8	208	- 3.7
1984	460	-12.0	171	11.8	54	- 1.8	225	8.2
1985	519	12.9	199	16.4	65	20.4	264	17.3
10-Year Change	-296	-36.4	71	55.5	1	1.6	72	37.5

(a) These figures do not include Master of Arts in Teaching and Master of Education in Science degrees.

TABLE 9

DEGREES AWARDED, A&S AND UNM, 1975 AND 1985

	Bachelor's Degrees			Advanced Degrees		
College	1975	1985	% Inc.	1975	1985	% Inc.
Arts and Sciences	747	519	-30.5	213	264	23.9
B.U.S.	437	151	-65.4	--	--	--
Other Colleges*	964	1,129	17.1	583	681	16.8
UNM TOTAL	2,148	1,799	-16.2	796	945	18.7

*Excludes Law and Medicine.

TABLE 10

DEGREES AWARDED, BY DEPARTMENT[1]

Department	Bachelor's				Master's				Doctoral			
	1982	1983	1984	1985	1982	1983	1984	1985	1982	1983	1984	1985
Astrophysics	--	--	--	1	--	--	--	--	--	--	--	--
Biochemistry	--	--	--	1	--	--	--	--	--	--	--	--
American St.	4	1	3	5	3	1	5	--	4	8	6	5
Anthropology	19	24	17	15	10	18	19	15	5	5	5	4
Art[2]	4	2	2	--	31	15	14	22	--	--	--	3
Biology	55	82	39	64	5	8	10	12	6	5	6	8
Chemistry	15	19	9	15	6	6	3	10	6	8	8	7
Comm. Disorders	13	12	13	16	19	25	20	16	--	--	--	--
Comp. Lit.	1	1	--	--	--	--	--	1	--	--	--	--
Creative Wrtg.	7	4	7	7	--	--	--	--	--	--	--	--
Criminal Just.	--	--	--	2	--	--	--	--	--	--	--	--
Economics	42	59	32	44	5	4	5	1	1	3	1	5
English	27	30	29	27	7	8	14	17	7	7	1	--
English-Phil.	2	2	2	2	--	--	--	--	--	--	--	--
Geography	9	16	12	9	2	7	2	4	--	--	--	--
Geology	22	22	22	18	10	8	12	13	--	2	--	1
History	24	27	21	29	3	6	9	7	3	7	4	5
Home Economics[2]	1	--	3	1	5	2	3	10	--	--	--	--
Ibero-Amer. St.[3]	-	--	--	--	--	--	--	--	--	1	--	2
Journalism	21	27	26	26	--	--	--	--	--	--	--	--
Linguistics	1	3	2	2	1	--	3	2	--	--	--	--
Lat. Amer. St.	5	11	5	5	5	6	5	10	--	--	--	--
Math & Stat.	15	17	12	12	10	8	10	9	2	1	3	5
M&CL	16	32	25	22	12	10	8	15	3	3	7	3
Philosophy	1	4	3	5	2	3	3	2	1	--	2	3
Physics & Astr.	8	7	5	7	4	4	6	4	1	3	6	4
Pol. Science	43	46	55	59	4	1	2	8	--	1	1	1
Psychology	60	66	64	62	5	7	5	12	11	1	4	7
Religious St.	--	4	--	3	--	--	--	--	--	--	--	--
Russian St.	1	--	3	1	--	--	--	--	--	--	--	--
Sociology	23	29	29	31	2	1	1	3	1	--	--	2
Speech Comm.	19	22	28	34	14	5	12	6	--	--	--	--
TOTAL	458[4]	569[4]	468[4]	525[4]	165	153	171	199	51	55	54	65

[1]Includes summer, fall and spring graduates.

[2]Not a department of the College of Arts and Sciences, but major or minor is allowed.

[3]Interdisciplinary program at the doctoral level.

[4]Degrees granted with double majors are counted once in each department, so this total will not agree with Table 9.

TABLE 11

ACADEMIC PROBATIONS, SUSPENSIONS AND RELEASES
COLLEGE OF ARTS AND SCIENCES

	1980-81		1981-82		1982-83		1983-84		1984-85	
	No.	%	No.	%	No.	%	No.	%	No.	%
Semester I										
On Probation	186	8.9	249	10.0*	465	17.1	628	20.6	318	10.1
Suspended	77	3.7	126	5.1	107	3.9	180	5.9	107	3.4
Released	30	1.4	47	1.9	74	2.7	72	2.4	86	2.7
Semester II										
On Probation	191	8.1	244	9.5*	505	17.4	502	15.7	344	10.6
Suspended	112	4.8	91	3.5	119	4.1	128	4.0	153	4.7
Released	64	2.7	85	3.3	76	2.6	76	2.4	109	3.4

Number of Students Enrolled in Arts and Sciences:

Semester I, 1984-85	3,139
Semster II, 1984-85	3,238

*These figures do not include students admitted on probation.

TABLE 12

DEAN'S LIST, COLLEGE OF ARTS AND SCIENCES
NUMBER OF STUDENTS WITH GPA OF 3.00 AND ABOVE
FOR WORK OF 15 HOURS OR MORE TAKEN IN THE SEMESTER WITH GRADE

Grade Point Average	1981-82				1982-83			
	Sem. I		Sem. II		Sem. I		Sem. II	
	No.	%	No.	%	No.	%	No.	%
4.00	39	1.6	44	1.7	51	1.9	47	1.6
3.50-3.99	132	5.3	147	5.7	134	4.9	137	5.0
3.00-3.49	182	7.3	194	7.5	190	7.0	224	7.7
TOTAL	353	14.2	385	14.9	375	13.8	408	14.1
	1983-84				1984-85			
4.00	43	1.4	47	1.5	39	1.2	57	1.8
3.50-3.99	110	3.6	137	4.3	181	5.8	111	3.4
3.00-3.49	194	6.4	224	7.0	187	6.0	207	6.4
TOTAL	347	11.4	408	12.8	407	13.0	375	11.6

NOTE: % represents the percentage of the total Arts and Sciences enrollment for the semester indicated.

TABLE 13

DEGREES GRANTED WITH HONORS*

Honors in General Studies	
Summa Cum Laude	6
Magna Cum Laude	10
Cum Laude	17
Departmental Honors	
Anthropology	1
Chemistry	1
English	3
History	3
Modern and Classical Languages	1
Political Science	4
Psychology	7
Speech Communication	1
Initiated into Phi Beta Kappa	28
Initiated into Phi Kappa Phi	35

*Requirements completed Semester II, 1983-84, Summer 1984; Semester I, 1984-85.

TABLE 14

NEW RESEARCH AND TRAINING GRANTS, 1984-85

Department	Dollars	Number of Faculty	Number of Grants
Anthropology	$ 726,888	9	16
Biology	1,227,067	15	21
Chemistry	922,467	9	21
Communicative Disorders	1,250	1	1
Economics	346,993	4	4
English	79,969	2	2
Geology	1,195,455	9	24
Meteoritics	655,416	1	5
History	134,476	1	2
Linguistics	2,803	1	1
Mathematics and Statistics	320,573	5	5
Modern & Classical Lang.	6,234	2	2
Philosophy	1,230	1	1
Physics and Astronomy	2,612,051	19	27
Political Science	16,400	1	1
Psychology	150,267	3	4
Sociology	144,199	2	3
Maxwell Museum	59,020	4	5
Contract Archeology	852,980	2	18
TOTAL	$9,455,738	91	163

TABLE 15

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BUDGETED GAs/TAs, RESEARCH AND
PROJECT ASSISTANTS AND TRAINING GRANTEES

Department	GAs & TAs	RAs, PAs, & Trainees
American Studies	0.50	—
Anthropology	3.00	--
Biology	19.50	2.50
Chemistry	15.00	7.00
Communicative Disorders	1.00	—
Economics	4.00	0.50
English	22.00	—
Geography	1.50	--
Geology	6.50	8.50
History	7.00	0.50
Journalism	--	--
Linguistics	0.50	--
Mathematics and Statistics	11.50	—
Modern and Classical Languages	16.50	--
Philosophy	2.25	—
Physics and Astronomy	10.00	11.50
Political Science	2.00	--
Psychology	6.75	3.00
Sociology	2.50	--
Speech Communication	2.00	0.50
TOTAL	134.00	34.00

TABLE 16

SUMMER SESSION DATA, 1984 AND 1985

Department	Final 1984 Figures Allocation	%	Final 1985 Figures Allocation	%
American Studies	$ 6,621	1.16	$ 6,988	1.18
Anthropology	27,354	4.81	26,190	4.43
Biology	33,760	5.94	31,101	5.26
Chemistry	32,144	5.65	37,059	6.26
Communicative Disorders	5,096	0.90	6,956	1.18
Economics	22,689	3.99	25,236	4.26
English	76,862	13.52	73,170	12.36
Geography	10,391	1.83	9,566	1.62
Geology	11,940	2.10	12,117	2.05
History	32,098	5.65	33,676	5.69
Journalism	11,449	2.01	12,718	2.15
Linguistics	9,221	1.62	9,361	1.58
Mathematics and Statistics	66,587	11.71	71,275	12.04
Modern & Classical Languages	90,729	15.96	99,231	16.77
Philosophy	11,574	2.04	9,504	1.61
Physics and Astronomy	21,712	3.82	23,508	3.97
Political Science	16,114	2.83	15,162	2.56
Psychology	25,303	4.45	27,458	4.64
Sociology	18,630	3.28	22,789	3.85
Speech Communication	18,813	3.31	17,966	3.04
Foreign Programs	19,353	3.40	20,723	3.50
Research Stipends	--	--	--	--
Contingency	--	--	--	--
TOTAL	$568,440	100.00	$591,754	100.00

TABLE 17

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A&S TRAVEL DISBURSEMENTS

Department	Paper Presentation		Officer Participation		Miscellaneous Attendance	
	No. of Trips	Amount	No. of Trips	Amount	No. of Trips	Amount
American St.	1	$ 93.00	--	$ --	1	$ 38.40
Anthropology	5	637.20	--	--	6	1,254.00
Biology	17	2,120.16	--	--	3	255.60
Chemistry	2	330.00	--	--	2	371.00
Comm. Disorders	2	312.00	--	--	--	--
Economics	3	700.80	--	--	3	697.80
English	12	1,557.40	--	--	6	1,772.40
Geography	3	637.51	--	--	2	561.87
Geology	3	645.60	--	--	1	108.00
History	6	1,117.35	1	150.00	4	1,124.40
Journalism	--	--	--	--	--	--
Linguistics	1	210.00	--	--	2	373.20
Math & Stat.	2	601.20	--	--	3	1,143.60
M&CL	12	2,168.00	1	56.40	9	1,759.89
Philosophy	3	493.20	--	--	2	388.40
Physics	4	412.80	--	--	3	874.80
Political Sci.	7	911.40	--	--	2	282.00
Psychology	14	2,437.20	--	--	7	905.70
Sociology	8	1,462.90	--	--	--	--
Speech Comm.	9	1,660.20	--	--	1	108.00
TOTAL	114	$18,507.92	2	$206.40	57	$12,019.06

The Report of the Department of American Studies
July 1, 1984, to June 30, 1985
Marta Weigle, Chair

General Information

The American Studies Department has completed a year of consolidation, in large part the response to evaluations and the reorganization outlined in the annual report for 1983-84. Professor Peter White served as Acting Chair of the Department during the summer of 1984, and Professor Marta Weigle began her first year as Chair of the Department in August 1984. The faculty consisted of ten members, who acted as a committee of the whole for most policy, instructional, and graduate admissions decisions.

A. Significant Achievements

The graduate program received considerable attention this year. Professor Charles Biebel served as graduate adviser and assembled a graduate student handbook. Both a pro-seminar and a common reading list for part of the comprehensive examinations were initiated. Undergraduate matters were supervised by Professor Marta Weigle in the fall and Professor Jane Caputi in the spring, with Professor Vera Norwood also serving on the undergraduate committee.

Professors Biebel and Weigle helped plan the June 1985 Southwest Institute, in which they and Professors Vera Norwood and Peter White participated. The success of this venture promises to strengthen

the Southwest Studies program in the Department.

Three colloquia by faculty (Jane Caputi, Margaret Randall, Peter White) and graduate students (Denis Kiely, Charles E. Preston) were presented throughout the year. In the fall, Annette Kolodny, Professor of Literature at Rennselaer Polytechnic Institute, delivered a Graduate School lecture which was the special province of the Departments of American Studies and English.

New America continues to offer a forum for students, faculty, and outside contributors. Mary Dougherty-Bartlett remains general editor, with doctoral students Charles Poling managing editor and Stephen Fox special editor for the Health in the Southwest issue.

The faculty was active on campus and in professional societies like the American Folklore Society, the American History of Education Society, and the American Studies Association. Professor Sam B. Girgus completed a Senior Fulbright Lectureship in Heidelberg, West Germany, and also delivered lectures in Rome, Paris, and West Berlin. Professor Marta Weigle was nominated and accepted for membership in the International Society for Folk-Narrative Research. Professor Peter White, who continued as co-editor of American Poetry, was on sabbatical in the fall of 1984. He was awarded a two-year University Presidential Fellowship as Associate Professor of English and American Studies.

B. Significant Plans and Recommendations for the Future

The Department will continue to monitor closely the progress of its

very large graduate program. This continues to take priority over the undergraduate program, which is developing more slowly. Professor Vera Norwood will spend the fall semester of 1985 working on an undergraduate sequence in Nature, Technology and the Environment.

The success of the Southwest Institute must be built into an even stronger Southwest Studies program. The Chair and other members of the Department will also continue to explore mutually satisfactory, fruitful associations with Chicano Studies, Native American Studies, and Women Studies.

The Department's involvement with New America must be reassessed.

Because of personnel changes in faculty affiliations and leaves, for 1985-86, the major decisions facing the Department will involve staffing. The Department badly needs one more full-time, American Studies-trained faculty member. It must also review the association of other on-campus faculty members with its graduate program as well as the part-time faculty who occasionally teach courses.

C. Appointments to Staff

Faculty percentage appointments in American Studies for 1984-85 are as follows: Biebel (1.00), Caputi (1.00), Girgus (1.00), Hill (.13), Jones (.33), Lupsha (.10), Norwood (.67), Weigle (.50), White (.10). Professor J. J. Brody served one-third of his time as Visiting Professor of American Studies, a provisional but active association which he asked to continue through the fall semester of 1985. (There was a unanimous

faculty vote to accept this proposal.)

Margaret Randall served as Adjunct Assistant Professor for the year.

Effective in the fall of 1985, Professor David Remley will move from the Department of English to become Associate Professor of American Studies. Since April, he has been participating in American Studies faculty meetings. Also effective in the fall of 1985, two faculty members, Professors Vera Norwood and Peter White, will increase their percentage of association with American Studies, the former to become full-time and the latter to .33 FTE.

D. Separations from Staff

Two changes were negotiated during the spring semester and will become effective in the fall of 1985: Professor Sam B. Girgus received a secondary appointment (.40 FTE) with the Department of English, and Professor Peter Lupsha resigned his secondary appointment with American Studies to return full-time to the Department of Political Science. In addition, Professor Charles Biebel will head the Honors Program while continuing as a member of the American Studies faculty with an annual two-course teaching load.

On June 14, 1985, the Department suffered a significant loss when its very capable, longtime secretary, Maria K. Warren, resigned her position for a job outside the University.

E. Sponsored Research

(a) Two American Studies faculty members, or 20% of all those

ssociated wholly or partially with the Department, submitted proposals to outside agencies during this period.

(b) No faculty member received an award from an outside agency during this period.

F. Student Matters

During this period, five students (Kate H. Parker, Chris Ruggiero, Tobias Duran, Edward G. Mahoney, and Charles E. Preston) received doctorates. Four students earned a bachelor's degree from the College of Arts and Sciences with an American Studies major, and eight graduated with an American Studies minor.

The Department was awarded a Presidential Graduate Fellowship by the College of Arts and Sciences. The faculty voted to give that award to doctoral candidate Phillip Burnham.

Doctoral candidate Martha Dailey received a Fulbright to India for the summer of 1985. Doctoral candidate Rae Sasmor has been named a Producing Fellow at the American Film Institute's Center for Advanced Film Studies, 1985-86.

The Report of the Department of Anthropology
July 1, 1984 - June 30, 1985
Linda S. Cordell, Chairperson

I. General Departmental Information

A. Significant Achievements During 1984 - 1985

The excellence of the Department of Anthropology has long been a source of pride for the University of New Mexico. The Department's prestige was acknowledged by in-coming University President Tom Farer in his remarks to the press. Nevertheless as the result of continued financial restrictions and ill-advised University policies three outstanding members of the department resigned their positions having obtained excellent offers at other institutions.

Financial considerations were important to our loss, because our faculty are paid far less than regional or national averages in our field, and this was the second year in three of serious legislative underfunding of higher education. Yet, other factors were also significant in decisions to leave. Faculty are demoralized by University policies that allow no flexibility in teaching loads and so undermine research, encourage faculty to obtain outside offers so that the very best people leave ensuring continuation of mediocre programs at best, fail to reward years of excellent service through adequate compensation or status and provide only minimal support for scholarly activities. The resignations of internationlly known scholars; Drs. Caroline

Bledsoe, Patricia Draper, and Henry Harpending were received with regret but with sympathetic understanding.

Several issues of departmental concern were resolved, or nearly resolved, during the year. These included renegotiating a cooperative agreement with the Chaco Center of the National Park Service, hiring a replacement for Dr. James Spuhler and a new director for the Maxwell Museum, and remodeling space for the osteological collection. Each of these is discussed briefly here.

The existing cooperative agreement between the University and the National Park Service relating to the Chaco Center expired in September 1984. Although both the Department and the Park Service indicated a desire to continue a cooperative research endeavor, the department required certain safeguards and clarification of responsibilities that had not been part of the previous agreements. Most important the department through the the Maxwell Museum wished to be assured that it would be the repository for archival and artifactual material recovered from Chaco Canyon National Historical Park. These materials are currently held at UNM and provide a valuable resource for scholarly research, yet the cooperative agreement did not specify that the collections were to remain at UNM. Second, the Chaco Center's work in Chaco Canyon had been completed, and 1985 research was scheduled to begin at Bandelier National Monument. The department did not wish to continue a cooperative research effort unless provisions were made for permanent acquisition of archival and artifactual materials from Bandelier by the Maxwell Museum. Third, Dr. W. James Judge, Director of the Chaco Center

and Associate Professor in the department announced his resignation from these positions, effective in April and June 1985 respectively. The department was concerned that the National Park Service replace Dr. Judge with an individual of comparable qualifications in order to facilitate continued cooperative research activities.

Throughout the year meetings were held with Park Service personnel, University Counsel, and the Associate Provost for Research. The final document signed by the Park Service and the University is satisfactory in addressing the department's concerns (see attachemnt 1). It must be pointed out, however, that the Park Service has not appointed a director to replace to Dr. Judge. Rather, an Acting Director who does not meet the criteria specified in the agreement is currently serving. The department, with the assistance of appropriate university personnel, must strongly encourage appointment of a fully qualified director at the earliest possible time. The resignation of Dr. Judge has additional impacts on the department, but these are discussed below in regard to staffing.

As noted in last year's annual report, Dr. Spuhler's retirement had its greatest impact on our program in biological anthropology. In order to preserve the continued excellence of this program, the department sought to fill the position with an established scholar and teacher. Following a national search, the department was pleased to recruit Dr. Jane B. Lancaster who will join the faculty in August. Dr. Lancaster's interests in primate and human evolution compliment those of our faculty in biologicl

anthropology and strengthen the links between biological anthropology and ethnology.

A national search was also conducted to fill the position of Director of the Maxwell Musuem, vacated by Dr. J. J. Brody in June of 1984. The department was again fortunate in being able to hire Dr. Garth L. Bawden for this position. Dr. Bawden has had substantial museum administrative experience at the Peabody Museum at Harvard University. He brings with him a commitment to developing the research potential of the Maxwell Museum collections as well as research and teaching interests in Andean archaeology.

Obtaining adequate laboratory space for biological anthropology, including appropriate facilities for the curation and storage of the department's osteological collection, is a critical need for the department. Last year, permission was obtained to reoccupy and remodel space in the anthropology building that had been occupied by the Geography Department pending its move to Bandelier Hall. By May 1985, shelving for the osteological collection had been installed. Dr. Rhine with the assistance of two students will be moving the collection during the summer. This marks a major achievement. In addition, the department obtained a grant through the systematic collections program of NSF to develop a computerized catalog system appropriate for the osteological collection. The system is designed to facilitate analysis in addition to the basic bookkeeping functions required by the Maxwell Museum. Despite these important gains, the University did not allocate adequate funds to equip the two new biological anthropology laboratories

with lab furniture and cabinetry. At present, we have two facilities that cannot be used. We expect the renovations to be continued after July 1 and will work closely with the central administration and the campus architect's office on this matter. The two new laboratories, when they are completed, will greatly enhance our biological anthropology program. Teaching and research in the paleontological and primate anatomy aspects of that program, however, are still hampered by the lack of adequate laboratory and storage facilities. Dr. Froehlich, who is responsible for primate paleontology and primate anatomy, is working with deplorable laboratory space. Freezer storage for some of his specimens is currently located in a hallway outside faculty offices, a fact which is consistently noted and reported by campus saftey inspection teams. It is imperative that appropriate space for these important aspects of the program is provided.

The department's faculty continue to be awarded campus and national recognition. Dr. Caroline Bledsoe was awarded one of the University Lectureships, and Dr. Philip Bock one of the University Professorships. Dr. Lewis Binford was named Leslie Spier Distinguished Professor of Anthropology and was the University's 29th distinguished research lecturer. In addition, Dr. Binford was a keynote speaker at the Society for American Archaeology's 50th Anniversary Meeting in Denver. Department faculty continue to successfully obtain research funds from outside agencies (see attached list). The resesarch grants enhance our national reputation, provide training experiences for

our students, and augment the limited departmental funds through overhead allocations. The volume of grant activity, however, places extreme burdens on our office staff.

The 50th Annivesary of the Society for American Archaeology, celebrated at the Denver meeting, was a showcase for UNM's anthropology faculty and graduate students. Drs. Sabloff and Cordell served on the 50th Anniversary Committee. Ten faculty members, including adjunct faculty, and eleven graduate students chaired sessions or presented papers at the meetings.

The department's graduate program continues to attract exceptionally fine students from a national, and growing international, pool. Our degree programs continue to produce excellent scholars (see Table 1 for descriptive summary). Our students continue to obtain research grants from major funding agencies (NSF, HEW, Wenner-Gren, Leakey Foundation) and two currently hold prestigious NSF graduate fellowships. The graduate students publish the research journal, Halik'sa, and a monthly newsletter, UNM Anthropology. This year, funds were made availabe through the College of Arts and Sciences and the Office of Graduate Studies to pay the part-time student editors of these publications.

As noted last year, the department received an endowment for an undergraduate scholarship. In May, the department undergraduate committee and the Board of Archaeologists voted to award the first Barbara Mac Caulley scholarship to Michelle Bennet who will begin her senior year in the fall.

The ability to bring outstanding speakers to campus is important for faculty and students alike. This year several noted anthropologists gave presentations for the department (see attached list). The department was especially pleased to be able to invite Dr. Scarlett Epstein, a noted British economic anthropologist, to campus for a public lecture and informal discussions with faculty and students. Dr. Epstein's visit was partially funded from the University Speaker's Committee.

The Journal of Anthropological Resesarch, under Philip K. Bock's editorship, continues to set a standard for quality among anthropological publications. (See the annual report of the Journal of Anthropological Research prepared by Professor Bock.)

The Office of Contract Archeology, under the able direction of Dr. Joseph Winter, assisted by Dr. Richard Chapman, has just concluded its most active, and lucrative, year to date. The Office continues to set high standards for public archaeology in New Mexico, to provide valuable research experience for the department's graduate students, and to serve the business community, state, and federal agencies. Despite the achievements of the Office (see annual report of the OCA prepared by Dr. Winter), University support for the Office is barely adequate. The future of the Office will depend on adequate compensation for its staff and adequate support facilities (such as vehicles).

The Maxwell Museum of Anthropology survived a difficult transitional year (see the Maxwell Museum annual report prepared

by Dr. Garth Bawden). Dr. Lewis Binford served as acting director during the year, with the able assistance of Dr. Bawden as half-time consultant during the Spring semester. Dr. Bawden assumed the Directorship full time in May.

The summer field school in archaeology is continuing its cooperative relationship with New Mexico State University. The two universities entered into a cooperative agreement with the USDA Forest Service for field school work near Ramah, New Mexico. The terms of the cooperative agreement provide $20,000 for the joint field school in the first year (1985) with an additional $40,000 over the next two years. These supplemental funds enable the field school to analyze materials recovered during the summer. This year, the joint field school enrolled twenty-eight students. Nearly half of these students came from universities outside the state of New Mexico reflecting the prestige the field school has maintained over the years. The Department was especially pleased to be able to hire Dr. Stephen Plog, Associate Professor at the University of Virginina, to serve as UNM's field school director this year. Funds for his appointment were allocated through the summer school budget. The ability to bring new talent to the field school enhances the program professionally and somewhat alleviates the problem of having only one southwestern archaeologist on the faculty. It does not solve the staffing problem however.

B. Significant Plans and Recommendations

Our major concerns for next year are faculty replacements,

with space, supplies and equipment as secondary matters.

The loss of three senior, full-time faculty is a very serious matter for our program. The three scholars who resigned were key figures in our Department's high national ranking and participated more than others in our graduate program. In addition, Dr. Judge's resignation has a greater impact on our programs than might be expected given his 10% FTE. Dr. Judge not only held senior rank but contributed greatly to our program in graduate education and research through his specialty in southwestern archaeology. The Department currently enrolls 116 graduate students. About 80% of these are in archaeology and most come here, because they are interested in the Southwest. At present, Dr. Cordell is the only full-time faculty member in southwestern archaeology.

Not only is it imperative that we replace those faculty who have left, but it is essential for faculty morale, continued high standing of the department, and continued service to our graduate students that we hire <u>established</u> scholars.

In the fall, the department will hold several crucial meetings during which we will assess our program, its needs, and future directions. These meetings will provide the basis for our subsequent recruitment and hiring efforts. It is unlikely that all individuals will view our needs in the same way, but I believe that rational decisions, based on self-assessment and evaluation can be made. It will then be critical for the University to support our decisions and assist us in recruiting the best scholars for our needs.

It is also extremely important that the University support the Department in keeping the outstanding programs and scholars we currently have. The loss of so many superb faculty can easily become the beginning of a major exodus unless we have continued support. For example, our fall enrollments are expected to suffer because of the loss of faculty, but we must be assured that the University understands this and will not react by cutting funding. Also, it is imperative that all efforts be made to retain outstanding faculty. For example, flexibility in scheduling and teaching loads are essential for those with international reputations and opportunities. It is also critical that efforts be made to lobby effectively for the University and that substantial progress be reported to the faculty.

The department will continue to work toward developing adequate research and teaching space for its laboratory programs and for the Maxwell Museum collections and archives. As noted above, some of our facilities are unsafe in addition to being generally deplorable. I will work closely with Dr. Bawden and with the department's committee on space allocation and use, but we must have University support. The department's main building consists of office, laboratory, archive, museum gallary, and classroom space. The various functions of rooms and space, in addition to the entire quantity of space, needs to be taken into consideration. Piecemeal modifications are not rational or cost effective. It is imperative that we be supported in our overall approach to modifications.

Finally, as usual, the department desperately needs a supply and equipment budget that in some way reflects the volume of work

that it accomplishes. Our current S&E budget is half a realistic evaluation of what we need as a bottom line. We overspend our budgeted S&E amounts consistently. A program that offers laboratory courses in two of its subfields (archaeology and biological anthropology), supports 116 graduate students, submitsabout 20 major grant proposals a year, and whose faculty publish regularly, cannot be expected to continue with an S&E budget of about $12,000.

MEMORANDUM OF UNDERSTANDING

BETWEEN

UNITED STATES

DEPARTMENT OF THE INTERIOR

NATIONAL PARK SERVICE

SOUTHWEST REGION

and

REGENTS OF

THE UNIVERSITY OF NEW MEXICO

ARTICLE I.

WHEREAS, this Memorandum of Understanding supercedes and cancels the Memorandum of Agreement entered into by the University of New Mexico and the National Park Service dated September 13, 1971, and reaffirmed January 16, 1979; and

WHEREAS, the Antiquities Act of 1906 (P.L. 59-209; 34 Stat. 225; 16 U.S.C. 431-433), the Service's Organic Act of 1916 (39 Stat. 535, 16 U.S.C. 1), the Historic Sites Act of 1935 (P.L. 74-292; 49 Stat. 666; 16 U.S.C. 461-467), the Archaeological and Historic Preservation Act of 1960 (P.L. 86-523; 74 Stat. U.S.C. 469), as amended by P.L. 93-291, the National Historic Preservation Act of 1966 (P.L. 89-665; 80 Stat. 915; 16 U.S.C. 470 et. seq.) as amended by P.L. 91-243, P.L. 93-54, P.L. 94-422, P.L. 94-458, and P.L. 96-515, the National Environmental Policy Act of 1969 (P.L. 91-190; 83 Stat. 852; 42 U.S.C. 4321-4347), Executive Order 11593, the

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Federal Grant and Cooperative Agreement Act of 1977 (P.L. 95-224; 92 Stat. 41; U.S.C. 501-509), and the Archeological Resources Protection Act of 1979 (P.L. 96-95; 93 Stat. 721; 16 U.S.C. 470), declare that it is a national policy to make necessary investigations and research in the United States relating to particular sites, buildings, or objects to obtain true and accurate historical and archeological facts and information concerning the same and, for the purpose of effecting this policy, authorize the National Park Service, Southwest Region, (hereinafter referred to as the Region) to cooperate with and to seek and accept the assistance of any Federal, State, or municipal department or agency or any educational or scientific institution and authorize archeological examinations and investigations on Federally owned lands under the administration of the Service; and

WHEREAS, the Service and the Regents of the University of New Mexico (hereinafter referred to as the University) are mutually interested in and desire to cooperate in conducting studies of archeology; and

WHEREAS, the University through capabilities and resources in anthropology, biology, computer systems, geography, geology, technology application, and in other disciplinary areas has qualified personnel and facilities to conduct such investigations as may be desirable and necessary within and in the vicinity of the Region's cultural resource areas; and

WHEREAS, the complexities of cultural resources management demand integrated skills and knowledge from many disciplines of the social and natural sciences; and

WHEREAS, both the National Park Service and the University of New Mexico have developed recognized experience and skill in their respective fields

of responsibilities and desire to exchange their knowledge on mutually satisfying terms in furtherance of the recognized objectives, policies, and responsibilities of each; and

WHEREAS, it appears advantageous to the Region to enter into an agreement with the University in order to facilitate desirable research and training in a joint and cooperative endeavor by the Region and the University through the offices of the Division of Cultural Research (including the Branch of Remote Sensing), hereinafter referred to as the Division;

NOW, THEREFORE, in consideration of mutual covenants hereinafter set forth and pursuant to the authority contained in the said Acts of Congress, the parties hereto agree as follows:

ARTICLE II.

A. The University agrees to

1) through the Director of the Maxwell Museum and in conformance with Park Service policy,

a) allow storage of collections of archeological, historical, and natural science specimens and related records belonging to the Region, including those already derived through the Division's study of Chaco Culture National Historical Park, as space is available and with the authorization of the Park Service Regional Director;

b) make such collections available at the University for student, faculty, and National Park Service researchers, and others with legitimate research interests;

c) actively encourage the appropriate scientific use of the collections;

d) and, when possible, to display for the public specimens from such

collections, with the exception of certain items as may be called for by the National Park Service;

2) supply the Division the necessary personnel (professionals and students) to conduct field studies and other relevant research projects as may be jointly determined by the University and the Region, subject to Federal regulations governing employment and volunteers;

3) in accordance with its usual policies and procedures, make available University staff privileges, including full access and use of certain facilities such as laboratories, libraries, museum and other scientific collections and related records, and recreational facilities, such as may be agreed upon;

4) make available telephone services;

5) make available on a temporary basis scientific collections and related records, which are on loan to the University from other agencies, institutions, or individuals;

6) within existing University regulations, administer or provide the following and related activities as may be mutually agreed upon:

(a) an exchange of personnel between the University and the Division;

(b) research projects relating to the mission of the National Park Service;

(c) studies providing information for the Region's interpretive programs;

(d) other activities such as will further the cooperative research objectives of the University, the Region, and the Division;

7) enter into further agreements with the Service as necessary and

desirable for the furtherance of the interdisciplinary studies of the Division;

8) offer University status to qualified Division personnel with academic and other qualifications acceptable to the University, and subject to availability of funds and applicable laws and regulations.

B. The Region agrees to

1) furnish the University access to and use of the facilities and resources of the Division, including laboratory, computer facilities, library, archives, and office space as available;

2) use the University as the primary repository for archeological, historical, and natural science collections derived from the Chaco Project and from future projects conducted by the Division, provided that release of said collections has been granted to the Division by the specific park office from which they were obtained and also provided that space is furnished by the University [see Article II. A. 1)].

3) actively seek, through appropriate Division and University personnel, effective means of increasing the study, interpretation, and other legitimate uses of the Division's collections for the benefit of the public, and to further professional interests and understanding;

4) make available to the University on a temporary basis scientific collections, and related records, which are on loan to the Region from other agencies, institutions, and individuals;

5) allow the National Park Service scientists of the Division to serve on graduate committees if qualified and invited;

6) within existing laws and regulations, conduct or provide the following and such other relevant activities as may be mutually agreed upon:

a) an exchange of personnel between the Division and the University;

b) research projects relating to the National Park System unit(s) under investigation by the Division;

c) studies providing information for interpretive purposes;

d) other activities such as will further the cooperative research objectives of the Region, the University, and the National Park Service;

7) enter into further agreements with the University as necessary and desirable for the furtherance of the interdisciplinary studies of the Division;

8) offer Federal status to University personnel as collaborators, consultants or other status as provided for under existing legislation, but in any event subject to federal employment laws and regulations;

9) provide consultation services to the University faculty and students working in the fields related to cultural research matters without charge to the University;

10) allow the Region scientists to participate in University connected seminars and to deliver lectures or teach pertinent courses on subjects related to cultural research contingent upon University review of the qualifications of participating Region personnel;

11) comply with the University regulations regarding the use of campus services and facilities.

C. It is further mutually agreed between the parties that

1) the recruitment of the Chief of the Division will be guided by a committee representative of National Park Service and University interests;

2) because of the cooperative nature of the position, the appointment of the Chief of the Division will be made

a) in compliance with all federal regulations governing recruitment, employment, and selection that are applicable to the position as it is classified;

b) in compliance with any temporary constraints placed on government hiring practices, such as hiring freezes; and

c) using the University's criteria of highly desirable qualifications (set forth in Appendix A) for evaluating candidates;

3) the Chief of the Division may be offered a joint appointment on the faculty of the Anthropology Department at the University while occupying said position if the Chief is a fully qualified and accredited scholar by University standards;

4) since the Division will have the need to call upon the scholastic resources of several academic departments of the University, and since this will require the cooperative efforts of a significant segment of the University, the Chief of the Division will coordinate administratively with the University Associate Provost for Research;

5) the results of any cooperative studies may be used for theses or dissertations in partial fulfillment of requirements for advance degrees and nothing herein shall operate to delay thesis or dissertation publication;

6) the studies and investigations carried on under this agreement by the University will not necessarily be restricted to Region areas, nor will the Region restrict its activities to the University's areas of interest and in understanding such, this agreement does not restrict the National Park Service's or University's rights to make agreements and contracts with other agencies, institutions, or individuals.

ARTICLE III.

This agreement will remain in force for a period of five (5) years from the date it is approved except that either party may withdraw from the agreement after giving 180 days' notice to the other.

ARTICLE IV.

A. During the performance of this agreement, the participants agree to abide by the terms of Executive Order 11246 (Appendix B) on non-discrimination and will not discriminate against any person because of race, color, religion, sex or national origin. The participants will take affirmative action to ensure that applicants are employed without regard to their race, color, religion, sex or national origin.

B. No member of or delegate to Congress, or resident commissioner, shall be admitted to any share or part of this agreement, or to any benefit that may arise therefrom; but this provision shall not be construed to extend to this agreement if made with a corporation for its general benefit.

IN WITNESS WHEREOF, the parties hereto have hereunto subscribed their names and affixed their seals this _____ day of _____.

NATIONAL PARK SERVICE

(signature)

Regional Director,

Southwest Region

4/23/85

(date)

REGENTS OF THE UNIVERSITY OF NEW MEXICO

(signature)

Carroll J. Lee, Assoc.
VP for Business/Comptroller

(title)

5/8/85

(date)

Approved as to form:

University Counsel

APPENDIX A

University criteria to be included in the recruitment notice and used as ranking factors during the rating and ranking process for Chief, Division of Cultural Resources:

1. PhD in anthropology required.

2. Four to six years' experience beyond the PhD required, at least two years of which involves teaching, preferably at the graduate level.

3. Broad research interests which include those relevant to the development of modern theory and method, topical and areal syntheses, and advancement of the discipline as a whole. Research experience in the Southwestern United States is preferred.

4. A substantial publication record which demonstrates professional development beyond the PhD. This will include publications in nationally referred journals, volumes edited by recognized scholars, etc. Publication of significant monographs preferred.

5. Experience in directing large-scale research projects in anthropology.

6. Quantitative analytic skills, and the ability to teach these at the graduate level, are preferred.

for employment within the executive departments and agencies and shall review agency program accomplishments periodically. In order to facilitate the achievement of a model program for equal employment opportunity in the Federal service, the Commission may consult from time to time with such individuals, groups, or organizations as may be of assistance in improving the Federal program and realizing the objectives of this Part.

SEC. 104. The Civil Service Commission shall provide for the prompt, fair, and impartial consideration of all complaints of discrimination in Federal employment on the basis of race, creed, color, or national origin. Procedures for the consideration of complaints shall include at least one impartial review within the executive department or agency and shall provide for appeal to the Civil Service Commission.

SEC. 105. The Civil Service Commission shall issue such regulations, orders, and instructions as it deems necessary and appropriate to carry out its responsibilities under this Part, and the head of each executive department and agency shall comply with the regulations, orders, and instructions issued by the Commission under this Part.

PART II—NONDISCRIMINATION IN EMPLOYMENT BY GOVERNMENT CONTRACTORS AND SUBCONTRACTORS

SUBPART A—DUTIES OF THE SECRETARY OF LABOR

SEC. 201. The Secretary of Labor shall be responsible for the administration of Parts II and III of this Order and shall adopt such rules and regulations and issue such orders as he deems necessary and appropriate to achieve the purposes thereof.

SUBPART B—CONTRACTORS' AGREEMENTS

SEC. 202. Except in contracts exempted in accordance with Section 204 of this Order, all Government contracting agencies shall include in every Government contract hereafter entered into the following provisions:

"During the performance of this contract, the contractor agrees as follows:

"(1) The contractor will not discriminate against any employee or applicant for employment because of race, creed, color, or national origin. The contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without regard to their race, creed, color, or national origin. Such action shall include, but not be limited to the following: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided by the contracting officer setting forth the provisions of this nondiscrimination clause.

"(2) The contractor will, in all solicitations or advertisements for employees placed by or on behalf of the contractor, state that all qualified applicants will receive consideration for employment without regard to race, creed, color, or national origin.

"(3) The contractor will send to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding, a notice, to be provided by the agency contracting officer, advising the labor union or workers' representative of the contractor's commitments under

Section 202 of Executive Order No. 11246 of September 24, 1965, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

"(4) The contractor will comply with all provisions of Executive Order No. 11246 of Sept. 24, 1965, and of the rules, regulations, and relevant orders of the Secretary of Labor.

"(5) The contractor will furnish all information and reports required by Executive Order No. 11246 of September 24, 1965, and by the rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to his books, records, and accounts by the contracting agency and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and orders.

"(6) In the event of the contractor's noncompliance with the nondiscrimination clauses of this contract or with any of such rules, regulations, or orders, this contract may be cancelled, terminated or suspended in whole or in part and the contractor may be declared ineligible for further Government contracts in accordance with procedures authorized in Executive Order No. 11246 of Sept. 24, 1965, and such other sanctions may be imposed and remedies invoked as provided in Executive Order No. 11246 of September 24, 1965, or by rule, regulation, or order of the Secretary of Labor, or as otherwise provided by law.

"(7) The contractor will include the provisions of Paragraphs (1) through (7) in every subcontract or purchase order unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to Section 204 of Executive Order No. 11246 of Sept. 24, 1965, so that such provisions will be binding upon each subcontractor or vendor. The contractor will take such action with respect to any subcontract or purchase order as the contracting agency may direct as a means of enforcing such provisions including sanctions for noncompliance: *Provided, however, That* in the event the contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction by the contracting agency, the contractor may request the United States to enter into such litigation to protect the interests of the United States."

Sec. 203. (a) Each contractor having a contract containing the provisions prescribed in Section 202 shall file, and shall cause each of his subcontractors to file, Compliance Reports with the contracting agency or the Secretary of Labor as may be directed. Compliance Reports shall be filed within such times and shall contain such information as to the practices, policies, programs, and employment policies, programs, and employment statistics of the contractor and each subcontractor, and shall be in such form, as the Secretary of Labor may prescribe.

(b) Bidders or prospective contractors or subcontractors may be required to state whether they have participated in any previous contract subject to the provisions of this Order, or any preceding similar Executive order, and in that event to submit, on behalf of themselves and their proposed subcontractors, Compliance Reports prior to or as an initial part of their bid or negotiation of a contract.

(c) Whenever the contractor or subcontractor has a collective bargaining agreement or other contract or understanding with a labor union or an agency referring workers or providing or supervising apprenticeship or training for such workers, the Compliance Report shall include such information as to such labor union's or agency's practices and policies affecting compliance as the Secretary of Labor may prescribe: *Provided,* That to the extent such information is within the exclusive possession of a labor union or an agency referring workers or providing or supervising apprenticeship or training and such labor union or agency shall refuse to furnish such information to the con-

SPONSORED RESEARCH OR OTHER PROJECTS

Name	Title	Agency	Accepted
David Nash (Lewis R. Binford)	Haystack Cave: A Case Study	Leakey	Submitted
David Nash (Lewis R. Binford)	Haystack Cave: A Cast Study for Evaluating the Clovis	NSF	Submitted
Lewis R. Binford	Taphonomic Study of the Zhoukoudian Fauna	NSF	Yes
Caroline Bledsoe	Relationship of Child Fosterage to Womans Status and Fertility	Rockefeller	Continuing
	The Implications of Child Fosterage for Fertility in Sierra Leone	Univ. of PA.	Continuing
Linda S. Cordell	Anasazi World: Planning	NEH	Continuing
	Anasazi World: Implementation	NEH	Yes
	Rowe Ruin Project	NSF	Continuing
	Teypama Pueblo Project	BLM	Continuing
John Fritz	Vijayanagara: Urban Space in a Medieval Hindu Imperial Capital	Smithsonian	Submitted
	Imperial City: A Medieval Hindu Case Study	NSF	Continuing
	Vijayanagara: Royal Center and the Hindu Concept of Kinship	NEH	Continuing
Louise Lamphere	Working Families and Sunbelt Industrialization: Changes in the Home and Work Place	Sage	Yes
J. Stanley Rhine & C. K. McDaniel	Cataloging & Conservation of a Systematic Southwestern Skeletal Collection	NSF	Yes
William Murphy	Language and Politics in a West African Chiefdom	NSF	Continuing
Jeremy Sabloff	Ancient Maya Settlement and Community Pattern at the Site of Sayil	NSF	Continuing

SPONSORED RESEARCH OR OTHER PROJECTS: (continued)

Robert Santley	Structure of Ceramic Products at Matacapan, Mexico	NSF	Continuing
M. Petraglia (L. G. Straus)	Paleolithic Reconnaissance and Analysis in the Franco-Cantabrian Region	Leakey	Yes
L. G. Straus	Archeological Research: A Study of Ecological Adaptation	NSF	Continuing

TABLE 1

GRADUATE PROGRAM INFORMATION
1984-1985

Registration Data

Semester	Registered	Female	Male
Fall 1984	108	53	55
Spring 1985	111	52	59

Degrees Awarded

	Ethnology	Archaeology	Linguistics	Biological
Summer 1984	2 Ph.D. 1 M.A.	8 M.A.	0	2 M.S.
Fall 1984	0	0	0	0
Spring 1985	1 Ph.D. 1 M.A.	1 M.A.	1 M.A.	1 Ph.D. 1 M.A.

Graduate Students in each Sub-discipline

	Ethnology	Archaeology	Linguistics	Biological
Fall 1984	28	57	4	19
Spring 1985	31	61	3	16

Applicants

	Applicants	Accepted by Us	Enrolled
Fall 1984	109	60	26
Spring 1985	9	6	3

Financial Aid

Graduate Assistantships	7 Full
Work Study	14
OCA or Chaco	4
NSF Fellowship	1
HEW Fellowship	1
Frieda Butler Fellowship	1

GUEST LECTURERS

1984-1985

Dr. Hans Peter Blankholm

Drs. John Fritz and George Michell

Dr. Duane Anderson

Dr. Garth Bawden

Dr. Richard Diehl

Dr. Theodore Frisbie

Dr. Raymond Newell

Mr. Robert London

Dr. M. Pamela Bumstead

Dr. Steve Gaulin

Dr. Jane Lancaster

Dr. Howard C. Higgins

Dr. Scarlett Epstein

Drs. Steven and Arlene Rosen

APPOINTMENTS TO STAFF

Faculty

Dr. Charlotte Benson (visiting), August 1984

Dr. Denise Lawrence (visiting), August 1984

Dr. David Risser (visiting), January 1985

Dr. Garth Bawden, May 1985

Adjunct Faculty

Dr. Howard Higgins, March 1985

Dr. Nancy Owen, March 1985

Appointments to Office Staff

Ms. Merilyn Williams (July 1984), Clerk Specialist IV

SEPARATIONS FROM STAFF

Faculty

Dr. Charlotte Benson (effective May 11, 1985)

Dr. James Judge (effective June 30, 1985)

Dr. Henry Harpending (effective May 30, 1985)

Dr. Denise Lawrence (effective May 11, 1985)

Dr. David Risser (effective May 11, 1985)

Staff

Ms. Ann Ingram (March 1985)

Report of the Maxwell Museum of Anthropology

July 1, 1984 - June 31, 1985

Garth L. Bawden, Director

The year 1984-1985 was one of major transition with the retirement of its long-term director J.J. Brody, and the selection of a successor. However various activities and developments that were undertaken during this period served both to alleviate problems raised in previous years and to set the stage for future directions. Important developments include long-needed renovation, administrative changes and improvements in collections organization and management. In addition, a full range of public programs, exhibitions and educational projects maintained the traditional profile of the museum in the local community.

1. Renovation

Renovation to the overcrowded osteological storage facilities, noted as one of the reasons for the witholding of accreditation by the American Association of Museums (A.A.M.) last year, are now complete. The university-funded renovations total 1,200 square feet provide well-organized shelving, good security and, most importantly, much improved study space in the store-rooms. Further, it is estimated that the amount of built-in growth space should adequately service the collection cataloguing by computerization, adding a valuable research capacity to the re-stored holdings.

In addition, the planned osteological laboratory space is now available (850 square feet). However, installation of equipment and furnishings will not be complete until the middle of the up-coming year, so can only provide a small part of its ultimate research potential at present.

The other major renovation project pertains to the public face of the museum. The central gallery, previously badly lit, with inadequate electrical wiring, and deteriorating flooring and walling was completely

upgraded. Newly-wired, carpeted, and walled, this gallery now houses the Maxwell's most recent exhibition and will serve the public needs for years to come.

2. Administration

One of the most significant developments of the year was the search for and selection of a new director. Following the retirement of J.J. Brody, Professor Lewis Binford served until late May 1985 as the Acting Director prior to the assumption of his duties by Dr. Garth Bawden from Harvard University. Most of the events and programs described in this report were therefore generated or carried out by Dr. Binford.

Another Administrative achievement was the creation of a Board of Management to act as the formal governing body of the museum. This board, whose absence in the previous years had contributed to witholding of the A.M.M. accreditation, is composed of representatives of each of the anthropology wings, the director of the Latin American Institute, and representatives of the general faculty and administration of the university. Ex officio members include the Maxwell Museum Director, the Chairman of the Anthropology Department and the President of the Maxwell Museum Association. During the year the Board met regularly to formulate its by-laws and to devise general policy procedures by which it will guide the museum.

Finally, with the satisfactory completion of storage renovation and the construction of the Board of Management, accreditation by the American Association of Museums was granted. The accreditation offers the museum the numerous benefits provided by the official organ of the American museum profession.

3. Collections

Several improvements in the area of collections management and organization were either completed or commenced during the year. First, Dr. Binford obtained a supplementary budget allocation of $23,000 in order to conduct a physical inventory of all museum collections. This inventory was completed in April 1985 and constitutes the first phase of a Three-

year-program designed to update, correlate, and verify the accuracy of the collection records — inventory, accession records, and catalogue. All information is being computerized for ease of use and the resulting information will comprise a comprehensive information bank of the entire museums holdings, equally useful as a recording device and a research tool. The second phase of this program-correlating the inventory with the accession data has now commenced and will continue through the coming year pending the continued availability of the necessary funding.

A second valuable contibution to the future effectiveness of the collections management was the constitution of an ad hoc advisory group drawn from the University School of Law to examine and make suggestions regarding the improvement of the policies governing accessioning and loaning of objects. In the past severe legal problems have arisen regarding the ownership of collections long regarded as Maxwell Museum holdings. These problems mostly derive from inadequate records and agreements between the museum and its donors attributable to unsatisfactory collections management procedures of the past. It is clearly necessary to devise collections policies that ensure the interests of the Museum and the University of New Mexico. The legal reviewing group will effect such improvement.

The third important contribution to the improvement of the collection is now in the preliminary stages of implementation. A National Science Foundation Systematic Collections Improvement Grant was awarded to the Maxwell Museum's Physical Anthropological Laboratories with Dr. Stanley Rhine, the Curator of Osteology, and Dr. Chad McDaniel of the Anthropology Department as the Prinicpal Investigators. This grant will enable two-fold improvement of the osteology collections, among the museum's most valuable research holdings. Completion of the on-going conservation program will allow greater use of the collections while a computer-based catalogue that incorporated formal traits as well as identificational and descriptive information will allow full realization of the collections high potential for research and teaching.

4. Exhibitions

During the past year a variety of exhibitions was presented, both in the museum galleries and elsewhere through the medium of travelling exhibitions. The range of subject matter bears testimony to the breadth of anthropology as the subject of the museums interest, and the diversity of research foci among the scholars associated with anthropology at the university.

Travelling Exhibitions:
The Chaco Phenomenon. Chaco Canyon archaeology. Travelled to Denver Museum of Natural History and Texas Tech, Lubboch, Texas.

Japanese-American Family Album. Travelled to Gallup and Santa Fe.

Museum Exhibitions:
Hunters and Gatherers.
Kuna Molas. Symbolic art of Panamanian Indian costume.
Among Ancient Ruins. Southwestern photography of Earl Morris, 19th century explorers.
Sardis. Harvard University excavation at the ancient Iron Age and Classical Anatolian site of Sardis.
This is your Museum. Topical
From the Weaver's View. Indian baskets of the American West.
Albuquerque Public Schools Itinerant Art Teacher Programs

5. Public Programs

The public outreach of the Maxwell consisted of a variety of activities held at the museum and the ongoing educational program, serving the public schools and conducted by a large volunteer docent body under the supervision of the Curator of Education, Jennifer Martinez.

Museum Activities:
Twenty-eight programs during the year included a variety of lectures, ethnic events, crafts demonstrations, and films. Subject matter emphasised Southwestern archaeology and ethnology but also ranged widely afield as befits the interests of the Museum.

Education Program:

Working in 13 private schools, 55 elementary schools, 12 junior high schools, 4 high schools, 13 day care centers. 3 adult organizations, and 8 senior centers, twenty-eight docents presented their educational programs with the help of exhibitive trunks to over 18,000 individuals. This program, the only one of its type in Albuquerque constitutes a valuable educational service to the local community as well as representing the most high profile activity of the museum.

5. Grants Received.

Grant money from the national foundations continues to represent the bulk of the museum's programmatic financial base given the extremely low ($13,500) unrestricted money allocation. Only through such grants has the Maxwell been able to provide, during this year, the public programming that is a central aspect of its mission.

1984-1985 Grants

-Institute of Museum Services General Operating Grant	$ 36,000
-National Endowment for the Arts. Grant for the presentation of traditional Arts and Artists.	$ 26,730
-National Endowment for the Arts. Catalogue of Southwestern Weaving.	$ 12,950
-Maxwell Museum Association	$ 3,500
-Albuquerque Public Schools. Towards educational programs.	$ 2,500

6. Maxwell Publications

With U.N.M. Press: The Galaz Ruin: A prehistoric Mimbres village in Southwestern New Mexico. Authors: Roger Anyon and Stephen LeBlanc.

With Office of Contract Archaeology: Economy and Interaction Along the Lower Chaco River. Edited by Patrick Hogan and Joseph Winter.

Maxwell Museum Technical Series:

No. 1. Ladder Ranch Research Project: A report of the First Season. Author: Margaret C. Nelson.

No. 2. An Archaeological Assessment of Site L.A. 282. Author: Amy Earls.

7. Staff Changes

Terminations:	Linda Bahm	Assistant Director	8/29/84
	Marsha Bol	Curator of Education	8/24/84
	Bernadette Cotton	Office Manager	4/10/85
	Bonnie Gatson	Education Assistant	3/11/85
Promotions:	Jennifer Martinez	Curator of Education	7/23/84
	Katherine Pomonis	Administrative Assistant	10/10/84
New Employees:			
	Garth Bawden	Director	5/14/85
	Darlene Rodriguez	Education Assistant	4/23/85
	Frieda Stewart	Office Manager	5/13/85
	Joe Vinovich	Grant Writer	12/20/84
	George Wagoner	Preparator	9/17/84

8. Professional Activities of Staff

Marian Rodee

- Served on Search Committee for Maxwell Museum Director.
- Submitted article to Textile History.
- Judge at Indian Market.
- Gave talk at Maxwell Museum on current development in NAvajo weaving.

Stanley Rhine

- Organized annual meeting of Mountain, Desert, and Coastal Forensic Antrhopologists, 1984
- Served as secretary for the Physical Anthropology section of the American Association of Forensic Sciences.
- Served as Vice-President of the Board of the American Board of Forensic Anthropologists.
- Participated in the annual Medicological Investigation of Death School, Office of the Medical Investigator, UNM School of Medicine.
- Invited lecture. N.M. Tech., Socorro.
- Paper presented. "Skull Racing", American Academy of Forensic Sciences, Anaheim.
- Articles published in Human Identification (T.A. Rathburn and J.E. Buikstra, eds.) C.C. Thomas, Springfield.
  1. "Forensic Anthropology in New Mexico" pp. 28-41
  2. "Perpendicular Forensic Archaeology" pp. 87-95
  3. "Facial Reproduction in Count" pp. 357-362
- "Human Burials from Sites B4 and 143" in Anasazi Pioneers: Puebloan Occupational Dynamics in the San Juan Coal Lease." (J.D. Beers and L. Wave, eds.) School od American Research, Report 096, Santa Fe.

Joseph Traugott

- Served as juror for New Mexico Arts Division Artists in the Schools section.
- Weekly art reviews for Sunday Journal
- Sculptured exhibitions in Albuquerque (Kron-Reck Gallery)

Sophie Collaros	- Served on Nominating, Publications, and Associate Member Liason Committees of Museum Stores Association. - Appointed Chairman of the Rocky Mountain Region of the Museum Stores Association.
Bruce Bernstein	- Curator of "From the Weaver's View: Indian Baskets of the American West." Maxwell Museum Exhibit.

6. Future Directions and Needs

While it is important that the museum's directly public-oriented programs (exhibition, public school education, etc.) continue, the chief thrust of the administration must be towards developing the high research of the collection.

In order to meet the museum's research and teaching responsibilities, two primary goals must be first achieved: satisfactory collections management and adaquate space. The first of these requirements is already being confronted. The ongoing inventory of ethnographic collections and projected update of all associated records, a three-year program, will provide a good documentary record and computerized data bank for future research. Likewise the imminent computerization of the osteological collections will within two years bring these valuable holdings to an excellent level of research accessibility, one that should be easily maintained for the forseeable future. There remains. however, a lamentable absence of such planning for the extensive archaeological and archival holdings, a matter to which I shall return.

While the on-line improvements to the management capabilities of the ethographic and osteology collections represent a major step forward, a complementary crystallisation and refinement of the general museum policies regarding their use is also necessary. This must be approached on two fronts. Most urgent is the need to ensure that the present museum procedures for accession, de-accession, and loan are adequate to legally protect the institution. Recent claims on major segments of the holdings from outside institutions and individuals has clearly shown that the present procedures are badly inadequate. On-going and

580 projected assistance from the university legal wings must be carried through to prevent future problems of this nature.

General policies must also be examined. The recently constituted Board of Management working with museum administration must provide the context for the review and reformulation of collection policies, exhibition philosophy and teaching and research goals. This process must in turn lead to the creation of a comprehensive museum philosophy and mission that incorporates the strengths of the institution and fully defines its role in the enhancement of the anthropological discipline at the University of Mew Mexico.

Within the framework of these improved collections management policies and procedures, the fundamental goal of upgrading research and teaching must then be addressed. Again, two complementary requirements must be met. First and most feasible, is the creation of a professional curatorial staff possessing a high degree of academic knowledge as well as museum experience. One such curator, the Curator of Osteology is already in place. The museum will obtain a counterpart for Archaeology for the next year. However this is a half-tume, temporary appointment. It is imperative tha this curatorial position be made permanent and full-time. Similarily, a position of Curator of Ethnology must be created at the earliest possible moment. Only thus with a fully trained supervisory staff can the various collections be satisfactorily utilized as research and teaching tools.

The second need for upgrading the Maxwell's research and teaching capabilities is much less easy to resolve. A major spatial expansion is urgently required. With the exception of the newly renovated osteological storage rooms and laboratories, the museum collections are all to various degrees housed in cramped facilities with little accompanying study and teaching space. While the ethnographic areas are at least useable for the present, the archaeological and archival materials are housed, in effect, in dead storage. Most critical in this respect is the condition of the archaeological collections. These materials include those from definitive Southwesterm excavated sites and constitute an invaluable research source. Presently housed away from the main campus

in a warehouse with inadequate environmental control or security, and virtually inaccessible to scholars. The condition of these collections are an embarrassment to the museum and the university, It is vital that the museum work towards acquiring a totally new facility that would redress this situation. Similarily, space expansion is required to provide study-storage facilities for the photographic and paper archives and thus make these collections accessible to scholarly research.

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It is, of course, fully realized that none of the plans presented here can be fully implemented in the absence of significant funding. Therefore a top priority of the new director must be to plan and conduct a funding program that can supplment university allocations and create the financial stability upon which the full potential of the Maxwell Museum as an important center of anthropological research can be realized.

Respectfully submitted,

Garth L. Bawden Director

REPORT OF THE OFFICE OF CONTRACT ARCHEOLOGY

July 1, 1984 - June 17, 1985

by

Joseph C. Winter

Director

1. Overall Review of Activities

The Office of Contract Archeology had a very successful year, both in terms of completed research projects and financial amounts generated for the University. Major completed projects (and reports) include the Navajo Mine Excavation Project, the Fence Lake Coal Lease Survey, the Sunbelt Mine Ethnographic Study, Test Excavations and Full Scale Excavations on the Hopi Reservation, and the Fairchild Site Excavation. Major ongoing projects include the Border Star '85 Survey and the Dry Cimarron Survey, and the completion of reports for the Cortez CO_2 pipeline excavations, the Las Huertas Valley monitoring program, the Bravo pipeline survey, and the Site 48 mitigation report. All 1984-1985 projects and their status are listed at the end of this report. The following section describes certain of them in detail.

2. Descriptions of Selected Projects

Under the direction of Joseph Winter, principal investigator, and Patrick Hogan, project director, a team of OCA archeologists and a crew

from the Hopi Research and Development, Inc., tested five sites along the southernmost 4 km of BIA Route N4 -- the Turquoise Trail -- on the Hopi Reservation in northeastern Arizona for the U.S. Army Corps of Engineers. Two sites, an apparent Pueblo IV field house and a small Pueblo II habitation site, lay largely outside the right-of-way and were only minimally investigated. A Pueblo II kiln site, a multicomponent Archaic and Pueblo II campsite, and a Basketmaker III - Pueblo I habitation site were more thoroughly investigated during the testing phase.

The kiln site consisted of a large but diffuse ceramic scatter surrounding a heavily fired bedrock pit filled with black ash, juniper charcoal, and spalled and vitrified ceramic sherds. The multicomponent camp site comprised two hearths, several fire-cracked rock scatters, several large ashy areas, and a generally diffuse scatter of ceramics and lithics, including late Archaic style dart points. One hearth produced a radiocarbon date of AD 110±65.

The fifth site, a Basketmaker III - Pueblo II multicomponent habitation site, lay directly in the path of the construction and was selected for complete excavation. This excavation was also carried out by OCA and Hopi Research and Development with Lynne Sebastian serving as project director. The Basketmaker III component appears to have been a year-round occupation consisting of a single large pithouse with a number of associated extramural features, including a ramada, three hearths, and slab-lined pits, and two large storage pits. The pithouse burned while it was occupied, leaving the entire nonperishable artifact assemblage intact and

largely in place.

The Pueblo II occupation appears to have consisted of a series of seasonal uses of the site, probably as a field house. The sequentially occupied structures were a small, shallow squarish pithouse that burned with the roof in place; an oval surface structure; and a final deeper, round pithouse.

Not all of the absolute dates are back for this site, but the Basketmaker III component dates to approximately AD 830-850, while the Pueblo II occupation spanned the period between ca. AD 1000 and 1130.

Roger Anyon directed surface collections and limited subsurface testing along a pipeline right-of-way through an edge of the Fairchild Site (LA 45732) near Alamogordo, New Mexico, under the general direction of Joseph Winter. The Fairchild Site is a huge area of archeological remains, primarily discrete fire-cracked rock concentrations, measuring approximately one-quarter by one-half mile on the west-slope alluvial fan of the Sacramento Mountains. Surface materials indicate that the site was used throughout the prehistoric sequence. It appears that the Fairchild Site was used by groups of hunter-gatherers as part of a scheduled round of seasonal mobility, probably as a location for roasting succulents during the spring and for procuring and processing mesquite beans during the fall. Several shallow fire-cracked rock scatters were excavated as part of the project. Preservation was poor, but a C14 date of AD 860±90 was obtained.

During June and July 1984, the OCA surveyed 6480 acres of land near Quemado, west-central New Mexico. Joseph Winter was principal investigator for the project; Patrick Hogan was the project director. This survey completed the cultural resources inventory of Salt River Project's Fence Lake coal lease begun in 1982. To date, 200 prehistoric sites, 16 historical sites, 7 petroglyph panels and 903 isolated occurrences have been recorded in the 9120 acres currently encompassed by the lease.

Preliminary settlement pattern studies conducted in conjunction with the survey indicate sporadic use of the lease area during the late PaleoIndian period and intermittent occupation by both Cochise and Oshara populations throughout the Archaic period. During the latter period, the lease seems to have been a peripheral area utilized only occasionally by small foraging groups and hunting parties.

Puebloan use of the lease spans a period between approximately AD 950 and 1200, with four definable occupation periods. Initially the lease was used as a seasonal farming area, but between AD 1050 and 1125 a permanent residential population, practicing an extensive agricultural strategy, settled in the area. Between about AD 1100 and 1175, the population seems to have increased in size and there is some evidence to suggest population aggregation and a shift toward a more intensive agricultural strategy focused on small catchment floodwater fields. The lease was largely abandoned between AD 1150 and 1200, presumably as the regional population became concentrated in centers along larger drainages to the north and east. Ceramic studies suggest that the Puebloan population of the lease

was most closely affiliated with a southern variant of the Anasazi, although the predominance of brownwares at a few sites may indicate the presence of some Mogollon groups.

In October, 1984, the Office of Contract Archeology initiated an inventory survey of 226 sq km within the southern Tularosa Basin of New Mexico. Conducted under contract with the Fort Worth District of the U.S. Army Corps of Engineers to facilitate compliance for the Border Star '85 military maneuvers, the survey entailed a field crew of 18 surveyors, and two data entry personnel under the direction of Timothy Seaman (project director) and William Doleman (laboratory supervisor/chief programmer). Richard C. Chapman served as senior principal investigator. Central features of the survey effort included data recording approaches emphasizing infield analysis of all artifacts and features within systematic transects over 6 percent of the land surface and data entry using microcomputers concurrently with field survey. Fieldwork was completed in January 1985 and resulted in data entry and processing of ca. 65,000 records of information from 32,000 transect sample units. Data entry, editing and preliminary statistical analysis was performed on Kaypro microcomputers using custom designed programs. Major data analysis will be undertaken on the UNM IBM 370 mainframe after data are uploaded, and will emphasize analytical mapping techniques for addressing problems of prehistoric settlement and subsistence within the basin floor.

3. Financial Statement

1984-85 was an extremely good year. Forty-six contracts worth

$1,212,294.00 were awarded, representing $308,001.00 in indirect cost. Of these amounts, $611,435.00 ($153,176.00 in indirect cost) was a mock budget for our new BLM open-ended contract, so actual monies awarded in contracts were $600,859.00, with $154,835.00 of that representing indirect cost. This is our best year ever since I began keeping records in 1979.

In addition to the $154,853.00 in indirect cost, we (Drs. Winter and Chapman), charged $16,694.00 in salaries to the contracts. Since our yearly budget was $93,900.00, the net gain to the university was $77,629.00

4. Other Activities

Dr. Chapman presented one paper at the Society for American Archaeology's annual meeting; coauthored a paper presented at a Society of Independent Anthropologists' symposium; taught a 466 course on research methods; and gave a seminar at the New mexico Archeology Society field school. I published three, nontechnical papers on local anthropology -- one in New Mexico magazine, one in the Albuquerque Journal's Impact Magazine, and one in the American Automobile Association's World Magazine.

Summary of OCA Activities
7/1/84 - 6/17/85

Project	Sponsor	Brief Description	Status
185-94	Utah International Inc.	Mitigation program for 35 sites	Completed
185-123	U.S. Army, Fort Bliss	Monitoring Fort Bliss' Historic Preservation program	In progress
185-147	Sunbelt Mining Co.	Ethnographic study of 11,000 acres	Completed
185-161a /c	Woodward-Clyde Consultants	Excavation of 12 sites	Draft report under review
185-161d	Woodward-Clyde Consultants	Monitoring of 36 locations in pipeline	Draft report under review
185-161i /j	Woodward-Clyde Consultants	Monitoring of pipeline	Draft report under review
185-161k	Woodward-Clyde Consultants	Data recovery in Las Huertas Valley	Draft report under review
185-161m	Woodward-Clyde Consultants	Excavation of 1 site	Draft report under review
185-168	U.S. Army Corps of Engineers	Completion of mitigation program at Site 48	Second draft report ready for review
185-188d	U.S. Forest Service	Preparation of report for 1 excavated site	Completed
185-191	Standard Oil Co.	Survey of 101 miles	Report in preparation
185-191a	Standard Oil Co.	Survey of 4 miles	Report in preparation
185-191d	Bravo Pipeline Co.	Survey of 40 miles	Report in preparation
185-191e	Bravo Pipeline Co.	Relocation survey	Report in preparation
185-193	Corps of Engineers	Test excavations of 5 sites	Completed

185-208	Historic Preservation Bureau	Reconnaissance of Dry Cimarron Valley	In the field
185-209	State of New mexico	Preparation of Ordinance	Ordinance being reviewed
185-210b	Salt River Project	Survey of 20 drill holes	Completed
185-211	Salt River Project	Survey of 8480 acres	Completed
185-193a	Corps of Engineers	Excavation of 1 site	Completed
185-217/ 217a	Mountain Bell	Survey of 4 miles of phone line	Completed
185-218	Qu-Max Limited	Survey of 5 acres	Completed
185-219	Carbon Coal	Survey of haul road	Report in preparation
185-224	City of Tucumcari	Survey of 11,700' pipeline	Completed
185-219a	Carbon Coal	Site fencing program	Report in preparation
185-185a /b	Transwestern Corp.	Lithic analysis	Report in preparation
185-211a	Salt River Project	Additional drill hole survey	Completed
185-220/ a/b/c/d	Corps of Engineers	Excavation of 1 site	Completed
185-225	Riverside Construction	Survey of 3 acres	Completed
185-226	Sandoval County	Gravel pit survey	Completed
185-227	Corps of Engineers	Survey of 50,000 acres.	In the field
185-185c	Transwestern Corp.	Survey of pipeline	Completed
185-231	FAA	Survey of Sierra Blanca Airport	Completed
185-235	Salt River Project	Survey of 13 drill holes	Completed
185-236	Broce Construction	Borrow pit survey	Completed
185-237	Mountain Bell	Survey of phone line	Completed
185-185d	Transwestern Corp.	Survey of 2500' pipeline	Completed
185-238	Easter Seal Society	Survey of 160 acre camp	Completed

185-185e	Transwestern Corp.	Survey of 9900' pipeline	Completed
185-239	Mountain Bell	Survey of phone line	Completed
185-185f	Transwestern Corp.	Survey of 2906' pipeline	Completed
185-185g	Transwestern Corp.	Survey of pipeline	Completed
185-235a	Salt River Project	Survey of drill holes	Completed
185-242	Mountain Bell	Survey of phone line	Completed
185-243	Broce Construction	Survey of borrow pit	Completed
185-244	Broce Construction	Survey of borrow pit	Completed
185-245	Mountain Bell	Survey of phone line	Completed
185-247	BLM	Open-ended contract	Waiting for work order
185-249	Corps of Engineers	Survey and monitoring	In the field
185-248	Indian Health Service	Monitoring water line	Completed
185-185h	Transwestern Corp.	Survey of pipeline	Completed
185-250	John Rinaldi	Survey of 4 acres	Completed
185-251	Mountain Bell	Survey of phone line	Completed
185-185j	Transwestern Corp.	Survey of pipeline	Completed
185-253	Riverside Construction	Survey near Claunch	Completed
185-255	Mountain Bell	Survey of phone line	Completed
185-258	Mountain Bell	Monitoring site	Report in preparation
185-261	Mountain Bell	Monitoring site	Report in preparation
185-262	AT&T	Survey of phone line	Report in
185-259	Business Strategy	Survey of road	In the field

Contracts Generated

7/1/84 - 6/17/85

Proposal Date	Proposal No.	Award Amount	Overhead Amount
7/19/84	185-224	$ 1366.00	$ 437.00
7/20/84	185-191e	8638.00	2762.00
7/20/84	185-210c	1864.00	551.00
7/19/84	185-219a	404.00	129.00
7/24/84	185-185a	1514.00	448.00
7/26/84	185-211a	2918.00	863.00
8/1/84	185-220a	42,830.68	10,688.00
8/14/84	185-225	1033.00	330.00
8/20/84	185-185b	2981.00	882.00
8/16/84	185-226	1045.00	334.00
8/24/84	185-227	445,554.00	113,051.00
9/6/84	185-185c	1223.00	362.00
9/12/84	185-231	14,430.00	3661.00
9/17/84	185-220c	27,994.83	7215.00
9/20/84	185-123e	3143.51	285.77
10/16/84	185-235	1957.00	626.00
10/17/84	185-236	804.00	257.00
10/23/84	185-237	1482.00	474.00
11/7/84	185-185d	1191.00	352.00
11/21/84	185-238	1556.00	259.00
12/7/84	185-185e	1362.00	403.00
12/12/84	185-210d	1008.00	298.00
12/17/84	185-239	1192.00	381.00

1/2/85	185-185f	757.00	224.00
1/9/85	185-185g	1191.00	352.00
1/22/85	185-235a	878.00	281.00
1/24/85	185-242	951.00	304.00
1/28/85	185-243	825.00	264.00
1/28/85	185-244	832.00	266.00
2/6/85	185-245	979.00	313.00
2/27/85	185-247	611,435.03*	153,176.00**
2/16/85	185-249	9904.00	2513.00
2/21/85	185-248	510.00	163.00
3/12/85	185-185h	1223.00	362.00
3/12/85	185-217b	176.00	56.00
3/14/85	185-250	669.00	214.00
3/26/85	185-251	2792.00	893.00
4/4/85	185-185i	285.00	84.00
4/8/85	185-185j	1116.00	330.00
4/16/85	185-253	913.00	292.00
4/26/85	185-255	2258.00	722.00
5/7/85	185-258	2084.00	666.00
5/8/85	185-259	826.00	264.00
5/28/85	185-261	2915.00	932.00
6/3/85	185-123h	564.30	51.30
5/31/85	185-262	720.00	230.00
		$1,212,294.35* ($600,859.32 actual)	$308,001.07** ($154,835.07 actual)

Note: * includes $611,435.03 mock budget for BLM open-ended contract; actual "real" yearly total is $600,859.32.
** includes $153,176.00 mock budget for BLM open-ended contract; actual "real" yearly total is $154,835.07.

Salary Credits for July 1984 - April 1985

Date	Amount
9/27/84	$ 6504.00
11/9/84	1460.00
12/13/84	1694.00
2/5/85	2279.00
4/9/85	4000.00
6/17/85	757.00
	$16,694.00

Total 003-036-0 Budget:	- $93,900.00
Total Salary Credits:	+ 16,694.00
Total Overhead generated:	+ 154,835.00
Total difference between expenses and credit	+ $77,629.00

ANNUAL REPORT

Larry V. Nordby

Division of Cultural Research and
Branch of Remote Sensing
National Park Service

July 1, 1984 - June 30, 1985

The Division of Cultural Research and Branch of Remote Sensing remain a National Park Service research facility working in cooperation with the University of New Mexico. During the past year, the Memorandum of Understanding between the two institutions was renegotiated, with ratification by the Regents dating May 8, 1985. The new memorandum is designed to remain in effect for 5 years beyond the approval date.

Recent personnel and National Park Service organizational changes modified and in some cases expanded the Division's role. Primary among these changes are the resignation of Dr. W. James Judge and designation of Larry V. Nordby as Acting Chief. A Southwesternist with 19 years of experience, Nordby's other interests include ruins preservation and underwater archeology. These are reflected in the nature of the projects transferred with him to the Division: archeological survey of Padre Island National Seashore, Texas, and miscellaneous research at Pecos National Monument. Thus, Division responsibilities in the future encompass both its past research at Chaco Canyon and Bandelier National Monument, and research at Pecos, Padre Island and Wupatki National Monument in Arizona. Multi-year research projects of similar scope constitute the long-range mission of the Division. The Branch of Remote Sensing continues under the direction of Dwight Drager.

Frances Joan Mathien served as Secretary-Treasurer of the New Mexico Archeological Council during 1984. During May of 1984, Larry V. Nordby was elected as the Society of Professional Archeologists ASCA delegate and assigned the duties of the Public Archeology Clearing House for the American Society for Conservation Archeology.

Research at Chaco Culture National Historical Park

During the past year, the archeological inventory of areas authorized by Congress for addition to Chaco Culture National Historical Park was completed. A total of approximately 6100 acres was surveyed, and over 1100 sites and isolated artifacts were located and documented during the two field seasons of this undertaking. The project, directed by Robert P. Powers, is now in the data analysis and report preparation stage. Analyses are being done by

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contract, and focus on settlement, demographic, agricultural, ethnohistoric, and artifactual studies that relate to long-term human adaptation to the Chaco Canyon area. To date, four UNM anthropology graduate students have been employed on various aspects of the project.

In an attempt to refine previously-derived site chronologies for small sites of the Pueblo II and III periods, Thomas C. Windes directed a largely volunteer crew. Results of the project have been summarized as noted in the attached bibliography. Mr. Windes also gathered additional data for the Pueblo Alto report currently in preparation. These data include information on flow characteristics and water quality of Great Gambler's Spring near Pueblo Alto. A new road segment in the vicinity was also discovered.

Other research at Chaco includes the following:

Frances Joan Mathien and Thomas C. Windes conducted field trips to Chaco Culture National Historical Park in conjunction with the University of New Mexico Maxwell Museum Association. During the 1984-85 year, two sets of tours were given: October 19-21 (which was cancelled due to inclement weather), and June 7-9.

Frances Joan Mathien and Thomas C. Windes completed a draft Historic Structure Report on the site of Kin Nahasbas, Chaco Canyon. During their research, they verified this site was not just a great kiva, but an Early Bonito Phase pit structure with houses and trash, and two later great kivas associated with house rooms on the hill above the great kiva.

Frances Joan Mathien, working with OAO Corporation, documented Phases I and II of the Chaco PARKMAN program, a computerized data base management system that contains data on ca. 2400 sites of various time periods and a graphic information system.

Frances Joan Mathien completed a report on the Ornaments and Minerals from the National Park Service Chaco Project. The 860 page manuscript is on file at the Division of Cultural Research.

Research at Wupatki National Monument

This project consists of complete cultural inventory of the Monument, an area of about 55 square miles. As of this point in time, about 30 sections have been surveyed, and 1450 sites have been located by two 4-person crews working for Supervisory Archeologist/Project Director Bruce A. Anderson. A primary goal is to model cultural interaction along a cultural frontier and delineate environmental parameters of site settlement. An adjunct to the survey is an ethnohistoric study of Navajo use of the Wupatki Basin, carried out by UNM graduate student Alexa Roberts. Advanced degree programs using the survey data

are underway or have been completed in five other cases. Subject matter for these studies includes prehistoric reservoir networks and temporal and formal variations of agricultural field systems in use following the eruption of Sunset Crater. This project will last an additional 3 years.

Research at Pecos National Monument

For the past 10 years, research in this area has included excavation at various sites and a survey of both the monument proper and surrounding privately owned ranchlands. The primary focus of the survey and accompanying evaluative excavations has been the identification of function for numerous sites in the Upper Pecos Valley using a composite of ethnographic modeling, intrasite proxemics, and functional analysis of stone tools. The South Pueblo, a 200+ room pueblo of the Protohistoric and Historic periods, was also tested, and portions of the trash mound were excavated. The Square Ruin, a large open plaza of undetermined ethic origin dating to the Historic period, was also tested, and a rock art study continued. Preservation activities involved stabilization work at the Pecos Mission/Convento and the South Pueblo. Analysis and reports on all these tasks are currently underway and some will become available during the next 12 months.

Research at Bandelier National Monument

A 7-year archeological inventory of Bandelier National Monument commences in the summer of 1985, following planning that occurred throughout the past year. The inventory, which will be conducted as a series of staged, stratified samples, will proceed in concert with the development of a model for predicting site density. Primary research concerns of the project will focus on subsistence and social adaptations to the Pajarito Plateau in the context of an increasingly complex society. Much of this upcoming summer will be spent designing and testing the field methodology for the project. Final preparation of the research design will follow this "pilot study" and will be circulated for review during spring of 1986.

Research at Padre Island National Seashore

Work at this area, located along the Texas Gulf Coast, has entailed two different types of research. The first consists of a systematic aligned sample based on transects that cross ecologically defined sectors, and focuses on terrestrial archeological sites. Funding levels were insufficient to permit survey coverage of more than a very small sample of the Seashore, which is about 80 miles long and less than 1 mile wide. The objectives of this survey include the use of topographically based locational models from the mainland as predictors of site location on a barrier island. This work was performed under contract with New World Research, Inc. As part of this contract a literature

search regarding the disposition of shipwrecks along Padre Island was also conducted, leading to the second kind of research.

Shipwreck research in this area has long been centered on the Spanish plate fleet wreckage of A.D. 1554. A number of coastal schooners dating to about A.D. 1850 also encountered misfortune on the Island's east coast, in addition to more recent vessels. Using a composite strategy of magnetometry, computer-interfaced positioning, and metal detection units, location of residues relating to such wreck episodes begins in July of 1985. During subsequent years, anomalies located during the magnetometer survey will be investigated by underwater archeologists. This project brings together a group of technical specialists from the Tennessee Valley Authority, Texas Antiquities Committee, and the National Park Service under the direction of Larry V. Nordby.

Branch of Remote Sensing, Projects and Intradivisional Support

A major current involvement is the long-term archeological survey of Bandelier National Monument. The Branch is preparing a preliminary model of projected site concentrations within the Monument using environmental zones visually interpreted from Landsat imagery and computer programs developed by the Branch. The Branch will also experiment with using electronic distance measurement instruments for site location in forested areas and with preparing photogrammetric maps of site locations using 35mm ground-based photography and a table-top stereo plotter.

Extensive use has been made of the laboratory equipment housed at the Branch by University of New Mexico students from the Departments of Anthropology, Geology, Geography, and the Office of Contract Archeology. The Branch's Leitz-Sokkisha Electronic Distance Measurement instrument has been taken to Wyoming to measure the locations of artifact distributions on paleo-Indian sites near Eden, Wyoming, by a UNM Anthropology Graduate student working on her Doctoral Dissertation. Prior to leaving for Wyoming, it was used by another UNM Anthropology Doctoral candidate to measure artifact distributions in a controlled test of artifact visibility for her dissertation. Another UNM Anthropology graduate student has been measuring projectile point coordinates for his dissertation research using the Branch's Numonics Planimetric Digitizer. Two Geology Department graduate students have been using the Branch's digital planimeter to measure drainage basin areas and stream lengths for both a master's thesis and a doctoral dissertation. In general, as students and faculty become more acquainted with the Branch's equipment, more and more use is being made of it by UNM personnel.

Other projects conducted by Branch personnel during this reporting period have included the development of a computer program to model the behavior of a prehistoric solar marker in Chaco Culture National Historical Park, and the

development of photogrammetric topographic maps at Yucca House National Monument, and Fort Davis National Historical Site.

As a result of Division or Branch research, 35 reports or articles were published and an even larger number are in press. A number of oral presentations were presented at professional meetings by staff members; a list of these is attached. Reports prepared for internal National Park Service distribution only are not included in the attached listings.

Publications During University FY 1984

Akins, Nancy J.
Temporal Variations in Faunal Assemblages from Chaco Canyon. In Recent Research on Chacoan Prehistory, edited by W. J. Judge and J. D. Schelberg, pp. 225-240. Reports of the Chaco Center No. 8. Albuquerque: National Park Service.

Akins, Nancy J. and John D. Schelberg
Evidence of Organizational Complexity as Seen from the Mortuary Practices in Chaco Canyon. In Recent Research on Chacoan Prehistory, edited by W. J. Judge and J. D. Schelberg, pp. 89-102. Reports of the Chaco Center No. 8. Albuquerque: National Park Service.

Brugge, David M.
The Chaco Navajos. In New Light on Chaco Canyon edited by David Grant Noble, pp. 73-90. School of American Research Press.

Cameron, Catherine M.
A Regional View of Chipped Stone Raw Material Use in Chaco Canyon, New Mexico. In Recent Research on Chacoan Prehistory, edited by W. J. Judge and J. D. Schelberg, pp. 137-152. Reports of the Chaco Center No. 8. Albuquerque: National Park Service.

Clary, Karen Husum
Anasazi Diet and Subsistence as Revealed by Coprolites from Chaco Canyon. In Recent Research on Chacoan Prehistory, edited by W. J. Judge and J. Schelberg, pp. 265-279. Reports of the Chaco Center No. 8. Albuquerque: National Park Service.

Cully, Anne
The Distribution of Corn Pollen at Three Sites in Chaco Canyon, New Mexico. In Recent Research on Chacoan Prehistory, edited by W. J. Judge and J. D. Schelberg, pp. 251-264. Reports of the Chaco Center No. 8. Albuquerque: National Park Service.

Cully, Jack F.
Diversity, Stability, and the Deer Mouse: Implications for the Vegetative Diversity Model. In Recent Research on Chacoan Prehistory, edited by W. J. Judge and J. D. Schelberg, pp. 213-224. Reports of the Chaco Center No. 8. Albuquerque: National Park Service.

Doyel, David E., Cory D. Breternitz and Michael P. Marshall
Chacoan Community Structure, Bis sa'ani Pueblo and the Chaco Halo. In Recent Research on Chacoan Prehistory, edited by W. J. Judge and J. D.

Schelberg, pp. 37-54. Reports of the Chaco Center No. 8. Albuquerque: National Park Service.

Drager, Dwight L., and Thomas R. Lyons
REMOTE SENSING: Photogrammetry in Archeology: The Chaco Mapping Project. Supplement No. 10 to Thomas R. Lyons and Thomas Eugene Avery REMOTE SENSING: A HANDBOOK FOR ARCHEOLOGISTS AND CULTURAL RESOURCE MANAGERS. Washington: Government Printing Office, Division of Cultural Resource Management, National Park Service.

Gillespie, William B.
The Environment of the Chaco Anasazis. In New Light on Chaco Canyon edited by David Grant Noble, pp. 37-44. School of American Research Press.

Judge, W. James
Introduction to Research of the Chaco Center: An Interim Report. In Recent Research on Chacoan Prehistory, edited by W. J. Judge and J. D. Schelberg, pp. 1-2. Reports of the Chaco Center No. 8. Albuquerque: National Park Service.

New Light on Chaco Canyon. In Chaco Canyon, edited by D. Noble, pp. 1-12. Santa Fe: School of American Research.

Lagasse, Peter; William B. Gillespie and Kenneth G. Eggert
Hydraulic Engineering Analysis of Prehistoric Water Control Systems at Chaco Canyon, New Mexico. In Recent Research on Chacoan Prehistory, edited by W. J. Judge and J. D. Schelberg, pp. 187-212. Reports of the Chaco Center No. 8. Albuquerque: National Park Service

Lekson, Stephen H.
The Dating of Casas Grandes. The Kiva, 50(1): 55-60.

Great Pueblo Architecture of Chaco Canyon. Publications in Archeology 18B. Chaco Canyon Studies. Albuquerque: National Park Service Publications in Archeology.

Mimbres Settlement Size in Southwestern New Mexico. In Recent Research in Mogollon Archaeology, edited by S. Upham et al. Occasional Paper 10, New Mexico State University Museum.

Prehistoric Settlement Along the Palomas Drainage, Southern New Mexico. In Prehistoric Use of the Eastern Slope of the Black Range, New Mexico, edited by M. Nelson. Technical Series of the Maxwell Museum of Anthropology 1. Albuquerque: Maxwell Museum.

The Sierra County Rio Grande Project. UNM Anthropology 3(5).

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Standing Architecture at Chaco Canyon and the Interpretation of Local and Regional Organization. In Recent Research on Chacoan Prehistory, edited by W. J. Judge and J. D. Schelberg, pp. 55-74. Reports of the Chaco Center No. 8. Albuquerque: National Park Service.

Mathien, Frances Joan
Archeological Application of Historic Structure Reports. CRM Bulletin 7(1):11,19.

Jewelry items of the Chaco Anasazi. In Recent Research on Chacoan Prehistory, edited by W. J. Judge and J. D. Schelberg, pp. 173-186. Reports of the Chaco Center No. 8. Albuquerque: National Park Servie.

Travertine Shell: A Problem in Identification of Materials Found in Archeological Sites. In Collected Papers in Honor of Harry L. Hadlock, edited by Nancy L. Fox. Papers of the Archeological Society of New Mexico 9, pp. 93-112. Albuquerque Archaeological Society Press.

McKenna, Peter J. with a contribution by H. Wolcott Toll
The Architecture and Material Culture of 29SJ1360, Chaco Canyon, New Mexico. Reports of the Chaco Center No. 7. Albuquerque: National Park Service.

McKenna, Peter J., and H. Wolcott Toll
Summary of Ceramic Reports from Chaco Canyon Sites. Pottery Southwest 12(2). Albuquerque Archaeological Society Press.

Nordby, Larry V.
Antecedents to Cicuye. In Collected Papers in Honor of Harry L. Hadlock, edited by Nancy L. Fox. Papers of the Archeological Society of New Mexico 9, pp. 115-124.

Palkovich, Ann M.
Disease and Mortality Patterns in the Burial Rooms of Pueblo Bonito: Preliminary Considerations. In Recent Research on Chacoan Prehistory, edited by W. J. Judge and J. D. Schelberg, pp. 103-114. Reports of the Chaco Center No. 8. Albuquerque: National Park Service.

Powers, Robert P.
Outliers and Roads in the Chaco System. In New Light on Chaco Canyon edited by David Grant Noble, pp. 45-58. School of American Research Press.

Regional Interaction in the San Juan Basin: The Chacoan Outlier System. In Recent Research on Chacoan Prehistory, edited by W. J. Judge and J. D.

Schelberg, pp. 153-172. Reports of the Chaco Center No. 8. Albuquerque: National Park Service.

Schelberg, John D.
Analogy, Complexity, and Regionally-Based Perspectives. In Recent Research on Chacoan Prehistory, edited by W. J. Judge and J. D. Schelberg, pp. 5-22. Reports of the Chaco Center No. 8. Albuquerque: National Park Service.

Toll, H. Wolcott III
Trends in Ceramic Import and Distribution in Chaco Canyon. In Recent Research on Chacoan Prehistory, edited by W. J. Judge and J. D. Schelberg, pp. 115-136. Reports of the Chaco Center No. 8. Albuquerque: National Park Service.

Toll, Mollie S.
Report on Macrobotanical Evidence. In Recent Research on Chacoan Prehistory, edited by W. J. Judge and J. D. Schelberg, pp. 241-250. Reports of the Chaco Center No. 8. Albuquerque: National Park Service.

Warren, A. Helene and Frances Joan Mathien
Prehistoric and Historic Turquoise Mining in the Cerrillos District. In Collected Papers in Honor of Albert H. Schroeder, edited by C. Lange, pp. 93-127. Papers of the Archaeological Society of New Mexico No. 10.

Windes, Thomas C.
A New Look at Population in Chaco Canyon. In Recent Research on Chacoan Prehistory, edited by W. J. Judge and J. D. Schelberg, pp. 75-88. Reports of the Chaco Center No. 8. Albuquerque: National Park Service.

A View of the Cibola Whitewares from Chaco Canyon. In Regional Analysis of Prehistoric Ceramic Variation: Contemporary Studies of the Cibola Whitewares, edited by A. P. Sullivan and Jeffrey L. Hamman, pp. 94-119. Arizona State University. Anthropological Research Papers 31.

Publications Currently in Press

Brugge, David M.
Tsegai: Archeological Ethnohistory of the Chaco Region. Washington: National Park Service Publications in Archeology.

Drager, Dwight L.
Conclusions and Recommendations. In Dwight L. Drager, ed., THE SEEDSKADEE PROJECT: Remote Sensing in Non-site Archeology. Albuquerque: Branch of

Remote Sensing, National Park Service; Bureau of Reclamation; and University of New Mexico.

A Model of Possible Site Concentrations in the Seedskadee Project Area. In Dwight L. Drager, ed., THE SEEDSKADEE PROJECT: Remote Sensing in Non-site Archeology. Albuquerque: Branch of Remote Sensing, National Park Service; Bureau of Reclamation; and University of New Mexico.

National Register Sites Found in the Seedskadee Project Area. In Dwight L. Drager, ed., THE SEEDSKADEE PROJECT: Remote Sensing in Non-site Archeology. Albuquerque: Branch of Remote Sensing, National Park Service; Bureau of Reclamation; and University of New Mexico.

A Project and Its Beginnings. In Dwight L. Drager, ed., THE SEEDSKADEE PROJECT: Remote Sensing in Non-site Archeology. Albuquerque: Branch of Remote Sensing, National Park Service; Bureau of Reclamation; and University of New Mexico.

Drager, Dwight L., editor
THE SEEDSKADEE PROJECT: Remote Sensing in Non-site Archeology. Albuquerque: Branch of Remote Sensing, National Park Service; Bureau of Reclamation; and University of New Mexico.

Ebert, James I. (in press)
Proposal for Remote Sensing and Class I Survey. In Dwight L. Drager, ed., THE SEEDSKADEE PROJECT: Remote Sensing in Non-site Archeology. Albuquerque: Branch of Remote Sensing, National Park Service, Bureau of Reclamation, and University of New Mexico.

Ebert, James I., Signa Larralde, and LuAnn Wandsnider (in press)
Distributional Archeology: Survey, Mapping, and Analysis of Surface Archeological Materials in the Green River Basin, Wyoming. In Dwight L. Drager, ed., THE SEEDSKADEE PROJECT: Remote Sensing in Non-site Archeology. Albuquerque: Branch of Remote Sensing, National Park Service; Bureau of Reclamation, and University of New Mexico.

Ireland, Arthur K.
A Culture History of the Seedskadee Project Area. In Dwight L. Drager, ed., THE SEEDSKADEE PROJECT: Remote Sensing in Non-site Archeology. Albuquerque: Branch of Remote Sensing, National Park Service; Bureau of Reclamation; and University of New Mexico.

Ireland, Arthur K., and Dwight L. Drager
Environmental and Background Information. In Dwight L. Drager, ed., THE SEEDSKADEE PROJECT: Remote Sensing in Non-site Archeology. Albuquerque:

Branch of Remote Sensing, National Park Service; Bureau of Reclamation; and University of New Mexico.

Ireland, Arthur K., and James I. Ebert
Bibliography and References. In Dwight L. Drager, ed., THE SEEDSKADEE PROJECT: Remote Sensing in Non-site Archeology. Albuquerque: Branch of Remote Sensing, National Park Service; Bureau of Reclamation; and University of New Mexico.

Judge, W. James
Chaco Canyon-San Juan Basin. In Dynamics of Southwestern Prehistory, edited by D. Schwartz. Santa Fe: School of American Research.

Larralde, Signa
Quality Control in Lithics Analysis: A Test of Precision. In Dwight L. Drager, ed., THE SEEDSKADEE PROJECT: Remote Sensing in Non-site Archeology. Albuquerque: Branch of Remote Sensing, National Park Service; Bureau of Reclamation; and University of New Mexico.

Lekson, Stephen
The Architecture of Talus Unit, Chaco Canyon. Papers of the Archaeological Society of New Mexico.

Book Review: Bis Sa'ani: A Late Bonito Phase Community on Escavada Wash, Northwest New Mexico, edited by C. D. Breternitz, D. E. Doyel, and M. P. Marshall.

Largest Settlement-Size as an Index of Scoio-political Complexity. Haliksa'i.

Mathien, Frances Joan
Book Review: The archaeology of Black Mesa, Arizona. Volune II, by Stephen Plog and Shirley Powell. American Antiquity

External Contact and the Chaco Anasazi. In Ripples in the Chichimec Sea. New Considerations of Southwestern-Mesoamerican Interaction, edited by F. J. Mathien and R. H. McGuire. Southern Illinois University Press.

Mathien, Frances Joan and Randall H. McGuire (editors)
Ripples in the Chichimec Sea. New Considerations of Southwestern-Mesoamerican Interaction. Southern Illinois University Press.

Schelberg, John, Peter J. McKenna, and Thomas C. Windes
Memories and Lessons from Al Hayes: The Chacoan Chapter. Papers of the Archaeological Society of New Mexico.

Toll, H. Wolcott
Book Note: Regional Analysis of Prehistoric Ceramic Variation: Contemporary Studies of the Cibola Whitewares. Arizona State University Anthropological Research Paper 31. American Antiquity.

Wandsnider, LuAnn, and James I. Ebert
Accuracy in Archaeological Survey Survey in the Seedskadee Project Area, Southwestern Wyoming. In Dwight L. Drager, ed., THE SEEDSKADEE PROJECT: Remote Sensing in Non-site Archeology. Albuquerque: Branch of Remote Sensing, National Park Service; Bureau of Reclamation; and University of New Mexico.

Modeling Climatic and Landform Factors Affecting the Character of the Archeological Record in Arid Lands: A Remote Sensing Approach in Southwestern Wyoming. In Dwight L. Drager, ed., THE SEEDSKADEE PROJECT: Remote Sensing in Non-site Archeology. Albuquerque: Branch of Remote Sensing, National Park Service; Bureau of Reclamation; and University of New Mexico.

Wandsnider, LuAnn, and Signa Larralde
Seedskadee Cultural Resources Assessment Project: Report to the Branch of Remote Sensing, National Park Service. In Dwight L. Drager, ed., THE SEEDSKADEE PROJECT: Remote Sensing in Non-site Archeology. Albuquerque: Branch of Remote Sensing, National Park Service; Bureau of Reclamation; and University of New Mexico.

Windes, Thomas C.
Chaco-McElmo Black-on-white from Chaco Canyon with an Emphasis on the Pueblo del Arroyo Collection. Papers of the Archaeological Society of New Mexico.

Drager, Dwight L.

"Equipment for Remote Sensing in Cultural Resource Management" Second World Conference on Rescue Archeology, December, 1984, Dallas, Texas.

"Remote Sensing in Cultural Resource Management." Geography class lecture, University of New Mexico, November, 1984, Albuquerque, New Mexico.

Ireland, Arthur K.

"Space-Age Archeology." Orientation to National Park Service Operations class, November, 1984, Glorieta, New Mexico.

Lekson, Stephen

"The Idea of the Kiva in Anasazi Archaeology." Society for American Archaeology, 50th Annual Meeting, May, 1985, Denver, Colorado.

Nordby, Larry V.

"Activity Pattern Recognition Through Model Building and Testing: Southwestern Examples." Society for American Archaeology, 50th Annual Meeting, Denver, Colorado.

Powers, Robert

"Cultural Adaptive Variability at Chaco Canyon, New Mexico." Society for American Archaeology, 50th Annual Meeting, Denver, Colorado.

Toll, H. Wolcott

"The Nature and Implications of Ceramic Specialization in the Chaco Anasazi System." Society for American Archaeology, 50th Annual Meeting, Denver, Colorado.

Windes, Thomas C.

"Small House Population Dynamics During the Bonito Phase in Chaco Canyon." Society for American Archaeology, 50th Annual Meeting, Denver, Colorado.

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ANNUAL REPORT

OF THE

DEPARTMENT OF BIOLOGY

JULY 1, 1984 - JUNE 30, 1985

Donald W. Duszynski

Professor and Chairman

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Annual Report of the Department of Biology

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July 1, 1984 - June 30, 1985

Donald W. Duszynski, Professor and Chairman

I. General Information

A. Significant Achievements

During FY 1984-85 I completed my third year as chair and I was strongly supported and ably assisted by my administrative assistant, Mary Alice Root. William Johnson served as assistant chairperson and also chaired our Department's undergraduate policy committee. During the year some significant progress was made by the Department in a number of areas and these are summarized below.

1. Building renovations. Renovation of laboratories for Drs. Barton (room 204A), Natvig (room 204) and Kogoma (rooms 205A, 205) were completed during the year as was the pollen lab (room 1B) which supports the ethnobotany program. Funds to renovate the first four labs were provided through the Comptroller's Office whereas renovation of the pollen lab was accomplished by a small grant through the UNM Foundation.

2. Computer additions. The Department continued to become more computer proficient, although we still lag far behind comparable departments at universities that are better funded. The following is a list of the computer-related hardware paid for by the Department in FY 1984-85 from either bond, overhead, or teaching funds or by various faculty from their research contracts and grants.

Departmental funds: 3 Zenith PCs, 1 IBM PC, 5 printers (HP, Okidata), 1 modem; Contract/grant research funds: 8 Zenith PCs, 4 printers.

3. The Biological Society of New Mexico (BSNM). The BSNM was established in 1984 as a tax-exempt organization under the New Mexico Nonprofit Corporation Act and the United States Internal Revenue Code. During December 1984 the Society sent its first newsletter (Appendix, item A) to over 400 former students who had completed graduate degrees in Biology. The newsletter presented a short history of the Biology Department and described the organization and proposed activities of the Society. One activity, an annual membership drive, met with moderate success as 23 individuals responded with contributions of $15 or more totaling $1585. Funds in the Society's account were used to sponsor recruitment of prospective graduate students in Biology, teaching awards for graduate students, and departmental seminar guests.

4. Undergraduate Curriculum. During the FY we added two courses to our undergraduate program: (1) Biology 404L - Marine and Desert Invertebrate Laboratory, (Crawford and Duszynski), a 2 sh course that has a required field trip to Mexico and (2) Biology 449 - Cell Biology II (Kerkof), an advanced treatment of cellular and molecular basis of the life processes (3 sh). During 1984-85 we awarded 70 B.S. degrees (5 in the summer, 19 in the fall, and 46 in the spring) and 16 minors.

The emphasis of our Department at the undergraduate level remains teaching Biology as a liberal art and our faculty and

teaching assistants are dedicated to providing students with a broad selection of high-quality courses that are current and meaningful.

The Undergraduate Policy Committee, chaired by Bill Johnson during the FY, continued its work on revision of our undergraduate curriculum to make it more flexible. The recommendation of the committee, which included dropping Biology 222 from the curriculum, was approved by the full faculty in the Fall 1984 and our revised programs for majors (below) will begin with the Fall 1985 semester.

The major program now requires a minimum of 37 credit hours earned in Biology courses. The courses must include 121L, 122L, 221; at least one of the following 429, 430, 435L, 460L, 478L. The remainder of the total required credit hours are to be earned in elective Biology courses, but may not include 100, 110, 111, 123L, 136, 139L or 239L. Required supporting courses are Math 182-183 or 162-163; Physics 151-152 or 160-161; Chemistry 121L-122L or 131L-132L and 301-303L or 212. Grades of C or better are required in all of the above courses.

Departmental advisement is required for students who wish to follow a specialized program of courses that focuses on any one of the following 6 biological areas: botany, evolution/ecology, microbiology, molecular/cellular biology, physiology, and zoology.

Our current undergraduate advisers (G. Johnson, W. Johnson, W. Martin, M. Molles) served over 100 majors and minors during the past FY.

5. Graduate Curriculum.

a. Graduate student recruitment. Funds made available from the BSNM helped us to recruit three "blue chip" graduate students. Tom Magee from the University of Missouri (Kogoma), Barbara Hager from Syracuse University (Thornhill) and David Pfenning from the University of Texas - San Antonio (Thornhill). All three were brought to UNM to visit our program and all had been activity recruited by other universities. Pfenning decided to continue his graduate work at UT - Austin, but both Hager and Magee decided to enter UNM in the Fall 1985 and both were awarded teaching assistantships.

b. Degrees awarded. During the FY we awarded 8 Ph.D. degrees, 9 M.S.I degrees and 2 M.S.II degrees. The students who received these degrees and their progress beyond the degree are listed below.

Ph.D.s

J. Cully. Visiting Research Assistant Professor, Department of Biology, UNM; under contract with Department of Game and Fish, State of New Mexico.
S. George. Assistant Curator of Birds and Mammals, Los Angeles County Museum.
D. Heinemann. Postdoctoral fellow, University of California - Irvine.
R. Peitruszka. Postdoctoral fellow, Namibia Desert Research Center, Africa.
J. Spalding. Computer Programmer and Research Associate, Physical Sciences Laboratory, New Mexico State University.
N. Subia. Student, UNM Medical School.
S. Zack. Postdoctoral fellow, Purdue University.
S. Ziser. Director of Biological Sciences, Indian Hills Community College, Ottumwa, Iowa.

M.S.I

T. Fischer. Environmental Scientist, IT Corporation, Carlsbad, NM.
J. Haydock. Field technician for Dr. Steve Zack, Venezuela.
W. Howe. Field research, Department of Energy, Carlsbad, NM.
K. Kilburn. Ph.D. candidate, Department of Biology, UNM.
E. Maloy. Biology teacher, Albuquerque Academy.
D. McElroy. Married, living in Albuquerque.
B. Parker. Student, College of Veterinary Medicine, Colorado State University.
R. Tierney. To be married, living in Los Alamos, NM.
S. Whisler. Student, UNM Medical School.

M.S.II

E. Rosenberg. Technician, UNM Medical School.
I. Sanchez-Vazquez. Employed by Faunal Silvestre, Mexico

c. External review of our graduate program. During April, 1985 our graduate program underwent an external review. The final report of the external review committee is included in the Appendix (item B) and is self explanatory.

d. Graduate student teaching awards. During the FY, 15 of our graduate teaching assistants were rated "Excellent" or "Outstanding (*)" by their students in the campuswide ICES teacher evaluation program one or more times in one or more semesters.

These were: Summer 1984: J. Gillespie, S. Zack; Fall 1984: J. Bednarz, T. George (2 lab sections), J. Hastings (2 lab sections), L. Janecek, K. Johnson, S. Lewis, A. McCallum*, G. Miller, A. O'Rouke* (2 lab sections), and B. Riddle; Spring 1985: J. Bednarz (2 lab sections), P. Chary, G. Dodson* (2 lab sections), J. Hastings, K. Johnson (2 lab sections), S. Lewis, and S. Wright (2 lab sections).

This year's winners of our Department's Graduate Student

Teaching Awards ($100) were: Summer 1984: Steve Zack; Fall 1984: Jim Bednarz and Ann O'Rourke; and Spring 1985: Gary Dodson.

e. Graduate student committee service. Many graduate students, as junior colleagues, serve our Department by membership on important departmental standing and ad hoc committees. During FY 1984-85 these included the following students:

Computer Use: Gary Dodson, Ollar Fuller, Larry Marshall

Graduate Policy: Larry Marshall, Gary Miller

Representatives to Faculty Meetings: Gary Dodson, Larry Marshall

Student Research Allocations: Kris Johnson, Dwight Klemm, Dwight Moore

Graduate Student Selection: Arch McCallum

Seminar: Luke George

Undergraduate Policy: Jon Hastings

f. Graduate student grants, publications, papers presented, etc. During the FY, 33 of our active graduate students made professional contributions or received professional awards exclusive of those achievements done jointly with their major professors. These included 32 papers presented at regional, national and international meetings; 4 publications in refereed journals; 4 awards from professional societies for outstanding student papers (Bednarz, Dodson (twice), Klemm), 10 grants received for research support from professional societies or granting agencies (Cook, Gentz, T. George, Gillespie, Janecek, Klemm, Miller, Sullivan (2 awards), Trotter), one Presidential Fellowship (Hill), one Fulbright Scholarship to France (Farr) and one NSF doctoral dissertation grant (Sullivan). These awards/achievements are in addition to (1)

departmental teaching awards (p. 6), (2) jobs and postdocs secured by our degree graduates (pp. 4-5) and in-house research awards, of which there were 17.

6. Adjunct Professors, Joint Appointments, etc. Several of our faculty hold honorary joint appointments in other departments and a number of professionals in other academic units, the private sector, industry and in governmental labs hold appointments in Biology and, as such, help lend breadth and strength to our overall program. These include at least the following for FY 1984-85:

Adjunct Professors: Roger Conant (Full); Tom Fritts (Associate); Eugene Rypka (Full); Norman Scott (Associate).

Adjunct Research Professors: Jack Cully (Assistant), David Hafner (Assistant), Kathryn Ono (Assistant), Richard Smartt (Assistant), Bruce Woodward (Assistant).

Joint Appointments (with us): Troy Best (Assistant), General College, UNM; Robert Kelley (Full), Anatomy Department, UNM Medical School; and Robert Waterman (Full), Anatomy Department, UNM Medical School.

Joint Appointments (with other departments): Oz Baca with Microbiology Department, UNM Medical School; Tokio Kogoma with Cell Biology Department, UNM Medical School; William Martin with Los Angeles County Museum and Arboretum; Kathryn Vogel with Anatomy Department, UNM Medical School.

Visiting Professors: Herb Grover (Associate).

Visiting Research Professors: Steve Austad (Assistant), Tom Koob (Assistant), Deborah Malka (Assistant), Beatrice Van Horne (Assistant).

7. Professional and Technical Support Staff. One of the most important components of our very active Department is our dedicated support staff, all of whom continue to strive for excellence by always contributing much more than what is expected of them by their job descriptions. Once again, for the record, I list the support staff of

this Department:

2 1/2-time Clerical Specialist IV, Receptionists (B. Wilson, C. Hill)
2 1/2-time Clerical Specialist VI, Technical Typists (L. Bennett, D. Schippert)
1 full-time Office Manager (P. Arthur)
1 full-time Clerical Specialist VI, Bookkeeper (M. Bealmear, K. Montoya)
1/2-time Staff Assistant, Bookkeeper (M. Bealmear)
1/2-time Graphics Technician (Y. Ramsey)
1 full-time Lab Tech III, Assistant to the Academic Support Aide (D. Opasic)
1 full-time Lab Tech II, Storekeeper (P. Curtiss)
1/2-time Lab Tech IV, Museum Manager (W. Barber)
1 full-time Lab Tech II, Media Prep (E. Arguello)
1 full-time Lab Assistant III, Media Prep (J. Donahoe)
1 full-time Lab Animal Tech III (M. Altenbach)
3/4-time Lab Animal Tech II (R. Ricci)
1 full-time Greenhouse Technician (J. Chavez)
1/2-time Horticulturist (F. Feather)
1/3-time Experimental Lab Tech (E. George)
1 full-time Academic Support Aide (M.A. Root). This is the most important position in the Department. Ms. Root is the Department Manager and is responsible for direct supervision of the first ten positions (above). She is also responsible for the building and its properties, our six field vehicles, and all other laboratory and field equipment involved in our teaching and research programs.

8. Biology Faculty.

a. Teaching excellence. Twelve of our faculty were rated as "Excellent" or as "Outstanding (*)" by their students in the campuswide ICES teacher evaluation program one or more times in one or more semesters last year.

These were: Fall 1984: S. Altenbach (3 courses), E. Bourne, R. Chiovetti*, P. Kerkof* (2 courses), W. Martin, M. Molles, D. Natvig, E. Toolson, T. Yates (2 courses); Spring 1985: S. Altenbach, E. Bourne*, R. Chiovetti* (2 courses), C. Crawford*, C. Dahm, P. Kerkof* (2 courses), M. Molles (2 courses), L. Potter, E. Toolson (2 courses).

b. Committee service. Most of our faculty serve the Department through membership on standing and ad hoc committees. During FY 1984-85 committee membership was as follows (* indicates committee chairperson):

Biological Society of New Mexico: D. Dusyznski*, J. Findley, L. Potter

Chairman's Advisory: C. Crawford, J. Findley, L. Potter

Computer Use: B. Rice*

A & S Graduate Policy: R. Cates

Undergraduate Advisors: G. Johnson, W. Johnson*, W. Martin, M. Molles

Graduate Policy: R. Cates*, J. Findley, T. Kogoma, D. Natvig, E. Toolson

Graduate Student Selection: L. Barton, M. Molles, R. Thornhill*

Lab Animal Use: S. Ligon, B. Riedesel, T. Yates

Library: C. Crawford

Sevilleta National Wildlife Refuge: C. Crawford*, W. Martin, N. Scott

Special Advisers: Forestry, wildlife - W. Martin
Health Sciences, premed - E. Bourne
Prevet - D. Duszynski

Teaching Evaluations: S. Ligon

Undergraduate Policy: S. Altenbach, O. Baca, E. Bourne, W. Johnson*, S. Ligon

c. Professional activities, of biology faculty, 1984.

(1). Books and textbooks.

MARTIN
A Handbook of Rare and Endemic Plants of New Mexico. UNM Press, Albuquerque, NM, 291 pp. (with Fletcher, R., W. Isaaca, P. Knight, D. Sabo, R. Spellenberg and T. Todsen).

Spring Wildflowers of New Mexico. New Mexico Natural History Series. UNM Press Albuquerque, NM, 257 pp. (and C. Hutchins).

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POTTER
New Mexico Grasses: A Vegetative Key. UNM Press, Albuquerque, NM, 160 pp. (and C. Barnard).

Principles and Methods in Reclamation Science: With Case Studies from the Arid Southwest. UNM Press, Albuquerque, NM, 294 pp. (and C. Reith)

(2). Edited volumes.

None

(3). Chapters/major review articles.

BACA
Possible biochemical adaptations of Coxiella burnetii for survival within phagocytes: effect of antibody. In: Microbiology (D. Schlessinger, ed.). American Society for Microbiology, Washington, D.C. pp. 269-272 (with E. T. Akporiaye and J. D. Rowatt).

CATES
The defenses of plants against insects. In: Insect Biology (H. Evans, author and ed.). Addison-Wesley Publishing Co., Reading, MA. (Peer reviewed).

CHIOVETTI
Lowicryl resins -- present and future applications. In: The Science of Biological Specimen Preparation (Revel, J. P., T. Barnard and G. H. Haggis, eds.). SEM, Inc., AMF O'Hare, IL. pp. 77-82 (with B. Armbruster, E. Kellenberger, E. Carlemalm, W. Villiger, R. Garavito, J. Hobot, and J. Acetarin).

CRAWFORD
Desert ecosystems: their resources in space and time. Environmental Conservation 9:181-196 (and J. R. Gosz).

Microbial gut symbionts and desert detritivores. Scientific Reviews on Arid zone Research 1:37-52 (and E. C. Taylor).

DAHM
Catastrophic disturbances to stream ecosystems: volcanism and clear-cut logging. In: Current Perspectives in Microbial Ecology (Klug, M. J. and C. A. Reddy, eds.). American Society for Microbiology, Washington, D.C. pp. 531-539 (with J. R. Sedell). (Invited chapter, reviewed by two reviewers before acceptance and publication).

GOSZ
Biological factors influencing nutrient supply in forest soils. In: Nutrition of Forest Trees in Plantations (Bowern, G. D. and E. K. S. Nambiar, eds.). Academic Press, NY. pp. 27-30.

Energy flow in the system. In: Chapter on Forest Ecology, Forestry Handbook. Society of American Foresters. pp. 27-30. 820

Influence of clear-cutting on selected microbial processes in forest soils. In: Current Perspectives in Microbial Ecology (Klug, M. J. and C. A. Reddy, eds.). American Society for Microbiology, Proceedings of III International Symposium on Microbial Ecology, Washington, D.C. pp. 523-530. (with F. Fisher).

Dynamics of desert resources: an overview. In: Ecosystem Theory and Application (Knox, G. and N. Polunin, eds.). John Wiley & Sons, NY. (with C. S. Crawford).

LIGON, J. D.
Communality in the green woodhoopoe (Phoeniculus purpureus). In: National Geographic Society Research Reports (Oehser, P. H., J. S. Lea and N. L. Powars, eds.). National Geographic Society, Washington, D.C. pp. 451-461.

THORNHILL
Alternative female choice tactics in the scorpionfly Hylobittacus apicalis (Mecoptera) and its implications. Amer. Zool. 24:367-383.

Alternative hypotheses for traits believed to have evolved by sperm competition. In: Sperm Competition and the Evolution of Animal Mating Systems (R. L. Smith, ed.). Academy Press, NY. pp. 151-178.

Scientific methodology in entomology. Florida Entomologist 67:74-96.

VOGEL
The aging cell. Structural and biochemical alterations associated with progressive subcultivation of human diploid fibroblasts. In: Aging and Cell Structure, (Vol. II), (J. E. Johnson, Jr., ed.). Plenum Publishing Corp., pp. 1-36.

WIENS
Resource systems, populations, and communities. In: A New Ecology: Novel Approaches to Interactive Systems (Price, P. W., C. N. Slobodchikoff and W. S. Gaud, eds.). John Wiley & Sons, NY. pp. 397-436.

On understanding a non-equilibrium world: myth and reality in community patterns and processes. In: Ecological Communities: Conceptual Issues and the Evidence (Strong, Jr., D. R., D. Simberloff, A. G. Abele, and A. B. Thistle, eds.). Princeton University Press, Princeton, NJ. pp. 439-457.

YATES
Insectivores, elephant shrews, tree shrews, and dermopterans. In: Orders and Families of Recent Mammals of the World (Anderson, S. and J. K. Jones, eds.). John Wiley & Sons, NY. pp. 117-144.

(4). Scholarly articles (refereed journals only).

BACA
Antibody-dependent cellular cytotoxicity of Coxiella burnetii-infected J774 macrophage target cells. Infect. Immun. 43:253-256 (and Koster, F. T., T. L. Kirkpatrick, J. D. Rowatt).

BARTON
Enhanced binding of potassium and phosphate to Escherichia coli with a carbodiimide. Microbiol. Letters 26:73-78 (and M. A. Tafoya).

Iron metabolism by an ectomycorrhizal fungus, Cenococcum gramiforme. Journal of Plant Nutrition 7:459-468 (and R. K. Rodriguez and D. J. Klemm).

CATES
Douglas-fir (Pseudotsuga menziesii) - spruce budworm (Choristoneura occidentalis) interactions: the effect of nutrition, chemical defenses, tissue phenology, and tree physical parameters on budworm success. Oecologia 62:61-67 (and R. Redak).

CRAWFORD
Decomposition in arid environments: role of the detritivore gut. South African Journal of Science 80:170-176 (and E. C. Taylor).

DUSZYNSKI
Local and systemic effects on inflammation during Emieria nieschulzi infection. J. Protozool. 31:283-287 (and G. A. Castro).

Taxonomy of North American fish Elmeriidae. National Oceanographic and Atmospheric Administration Technical Report, NMFS No. 11, August, 1984, 19 pp.

JOHNSON, G. V.
Selection of iron-efficient soybean cell lines using plant cell suspension culture. Jour. of Plant Nutrition 7:389-398.

KOGOMA
RNase H confers specificity in the dnaA-dependent initiation of replication at the unique origin of the Escherichia coli

chromosome in vivo and in vitro. Proc. Natl. Acad. Sci. USA 81:1040-1044 (and T. Ogawa, G. G. Pickett and A. Kornberg).

New origins of DNA replication in Escherichia coli K-12: initiation in the absence of oriC. J. Mol. Biol. 178:227-236 (and B. de Massy and D. Fayet).

dnaA suppressor (dasF) mutants of Escherichia coli are stable SNA replication (sdraA/rnh) mutants. Mol. Gen. Genet. 196:350-355 (and T. A. Torrey and T. Atlung).

The absence of RNase H allows replication of pBR322 in Escherichia coli mutants lacking SNA polymerase I. Proc. Natl. Acad. Sci. USA. 81:0000-0000.

Involvement of the activated form of RecA protein in SOS mutagenesis and stable SNA replication in Escherichia coli. Proc. Natl. Acad. Sci. USA 81:7539-7543 (and E. M. Witkin).

MOLLES
Patterns of case building by caddisflies in the southern Rocky Mountains. In: Proc. 4th Intern. Symposium of Trichoptera (J. Morse, ed.). Dr. W. Junk Publisher, the Hague. pp. 235-242.

NATVIG
Distribution and evolutionary significance of mitochondrial plasmids in Neurospora. Journal of Bacteriology 159:288-293.

POTTER
Fire ecology at Bandelier National Monument. In: La Mesa Fire Symposium, LA-9236-NERP (T. Foxx, ed.). Los Alamos National Laboratory, Los Alamos, NM. pp. 11-37.

Post-fire recovery and mortality of the ponderosa pine forest after La Mesa fire. In: La Mesa Fire Symposium LA-9236-NERP (T. Foxx, ed.). Los Alamos National Laboratory, Los Alamos, NM. pp. 39-55 (and T. Foxx).

RICE
Sex chromosomes and the evolution of sexual dimorphism. Evolution 38:735-742.

Disruptive selection on habitat preference and the evolution of reproductive isolation: a simulation study. Evolution 38:1251-1260.

TAYLOR
Mexican bean beetles mate successfully in diapause. Internl. J. Invertebrate Reproduction and Development 7:297-302.

623 Transient effects of photoperiod on reproduction in the Mexican bean beetle. Physiol. Entomol. (with R. Schrader).

THORNHILL
Fighting and assessment in Harpobittacus scorpionflies. Evolution 38:204-214.

TOOLSON
Interindividual variation in epicuticular hydrocarbon composition and water loss rates of the cicada, Tibicen dealbatus (Homoptera: Cicadidae). Physiol. 2001 57:550-556.

VOGEL
Selective degradation of basement membrane macromolecules by metastatic melanoma cells. J. Natl. Cancer Institute 72:889-899 (with R. H. Kramer).

Specific inhibition of type I and type II collagen fibrillogenesis by the small proteoglycan of tendon. Biochemical Journal 223:587-597 (and M. Paulsson and D. Heinegard).

WIENS
Information needs and priorities for assessing the sensitivity of marine birds to oil spills. Biol. Conservation 28:21-49 (and R. G. Ford and D. Heinemann).

The place of long-term studies in ornithology. Auk 101:202-203.

YATES
Biochemical systematics of three species of catfish (Genus Ictalurus) in New Mexico. Copeia 1984:97-101 (with M. A. Lewis and M. D. Hatch).

Noteworthy records of mammals from eastern Honduras. Southwestern Naturalist 29:511-514 (with L. Benshoof and J. W. Froehlich).

(5). Abstracts, notes, book reviews, agency technical reports.

BACA
Restriction endonuclease analysis of phase I and phase II Coxiella burnetii DNA. Abstract No. D67. Abstracts of the Annual Meeting of the American Society for Microbiology, p. 62 (with A. O'Rourke, J. Samuel, D. Natvig, M. Grazier and L. Malavia).

Analysis of the genomes of phase I and phase II Coxiella burnetii with restriction endonucleases. Abstracts of the

IIIrd International Symposium on Rickettsiae and Rickettsial Diseases, p. 21 (with A. T. O'Rourke, J. E. Samuel, D. O. Natvig, M. E. Frazier and L. P. Mallavia).

BARTON
Growth of mycobacteria in oxygen-limited environments. Abstracts of Annual Meeting of American Society for Microbiology, p. 89 (with S. Gillespie and E. W. Rypka).

Protoporphyrinogen oxidation in the strict anaerobe, Desulfovibrio gigas. Abstracts of the Annual Meeting of American Society for Microbiology, p. 154 (and D. J. Klemm).

CATES
Role of host plants in the population dynamics of the spruce budworm. In: Proceedings of the Canada/United States Spruce Budworm Research Symposium, 2 pp.

Effect of stress on patterns in the production of natural plant products. In: Effects of Stress on Carbon Allocation, Agronomy Society of America, 1 pp.

Modeling tree susceptibility to bark beetle attack. Entomological Society of America, (with P. J. H. Sharpe and Hsin-i Wu).

The resistance-susceptibility characteristics in Douglas fir to the western spruce budworm. Ecological Society of America, ___ pp. (with R. Redak).

DAHM
Nostoc productivity in Oregon stream ecosystems: invertebrate influences and differences between morphological types. Abstracts for 32nd Annual Meeting of the North American Benthological Society, 22 pp. (with A. K. Ward and K. W. Cummins).

Response of the phytoplankton community to extraordinary optical, thermal, and nutrient properties of Crater Lake, Oregon. Second International Workshop, The Group for Aquatic Primary Productivity (GAP), 47 pp. (with D. W. Larson and N. S. Geiger).

The effects of source and concentration on the uptake of dissolved organic carbon. Abstracts for 47th Annual Meeting of the American Society of Limnology and Oceanography, 19 pp. (with A. K. Ward and K. W. Cummins).

Biological responses of lakes in Mt. St. Helen's blast zone: processes and nutrient conditions related to phytoplankton composition and activity. Abstracts for 47th Annual Meeting of

the American Society of Limnology and Oceanography, 82 pp. (with A. K. Ward and J. L. Lay).

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Nitrogen cycling in lakes altered by the Mount St. Helen's volcano. Transactions, American Geophysical Union, EOS 65:914.

DEGENHARDT
Geographic distribution: Tropidoclonion lineatum. SSAR Herp. Review 15(1):21, (and M. A. Williamson).

DUSZYNSKI
Games parasites play: hiding from the host's immune response during sex. Presented 14 April, SWAN (and G. A. Castro).

The coccidia of Apodemus spp. in Japan. Presented 19 April, SWAP (with C.A. Wash).

The incidence of Syndesmis spp. in sea urchins of Discovery Bay, Jamaica. Presented 19 April, SWAP (with L. A. Hertel).

Coccidiosis of Sandhill Cranges (Grus canadensis) wintering in New Mexico. Presented 19 April, SWAP (with L. A. Hertel).

Coccidian parasites from voles (Microtus spp.) collected from the United States, Mexico and Japan. Presented 19 April, SWAP (with T. L. Vance).

Coccidiosis in sandhill cranes (Grus canadensis) wintering in central New Mexico. Presented 6 August, ASP (with B. B. Parker).

Coevolutionary patterns between cricetid rodents and their eimerian parasites. Presented 7 August, ASP (with D. W. Reduker).

Coccidiosis of Sandhill Cranges (Grus canadensis) wintering in New Mexico. New Mexico Department of Game and Fish Technical Report, 61 pp.

Editor of The Southwestern Association of Parasitologists: The First Fifteen Years, 1967-1972. 200 pp.

GOSZ
Prescribed fire effects on water soluble organics. U.S. Forest Service Technical Report.

LIGON
7 photographs, In: The classification and maintenance of animals in the world, 4, (Perissodactyla, Tublidentata, Hiracoidea, Sirenia). Pp. 123-126, Tokyo Zoological Park Society, Tokyo, Japan.

MARTIN
Review of Cacti and Succulents by Nelson Barnard for University of New Mexico Press, Albuquerque, NM.

MOLLES
Effects of trampling on particulate organic matter budgets of flowing through Aspen and conifer forests. North American Benthological Society Bulletin for 32nd Annual Meeting, p. 92.

Stonefly menus: influence of hunger and handling time on composition. Bull. Ecological Society of America. (Vol. 65, No. 2). (and R. D. Pietruszka).

Patterns of case building by caddisfly larvae in the southern Rocky Mountains. Guild of Rocky Mountain Population Biologists Program Bulletin, 7 pp.

Report on fish and wildlife related activities in Department of Biology, UNM. Interagency Workshop on Fish and Wildlife Needs.

NATVIG
Phylogenetic analysis of Neurospora using cloned, nuclear-DNA hybridization probes. Neurospora Newsl. 31:13, (and J. W. Taylor).

Restriction analysis of Neurospora crassa mitochondrial DNA. Neurospora Newsl. 31:13, (and J. W. Taylor, B. D. Smolich and G. May).

Restriction endonuclease analysis of phase I and phase II Coxiella burnetii DNA. Abstracts of the Annual Meeting of the American Society for Microbiology, 62 pp. (with A. T. O'Rourke, J. E. Samuel, L. P. Frazier, L. P. Mallavia and O. G. Baca).

Analysis of the genomes of phase I and phase II Coxiella burnetii with restriction endonucleases. Abstracts of the Third International Symposium on Rickettsiae and Rickettsial Diseases.

POTTER
Report on the impact of the 1984 floodwaters on the vegetation of the Yampa river, Dinosaur National Monument. Final Report, National Park Service, Denver, Colorado, 18 pp.

Re-evaluation studies of grazing exclosure plots, Bandelier National Monument. Final Report, Southwestern Region, Santa Fe, New Mexico, 39 pp.

RIEDESEL
Man and the Environment (John Stout, ed.). William C. Brown Co.

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Responses of hibernating and induced hypothermic Spermophilus lateralis to 100% nitrogen and 4% CO_2. Abstract in NM Journal of Science, (Vol. 24), p. 49 (with D. C. Espinosa and J. Griego).

TAYLOR
Abstract for symposium presentation in program for XVII Internl. Congress of Entomology.

THORNHILL
Incest: A biosocial view. Ethology and Sociobiology 5:211-214, (and N. Thornhill).

Human rape: The victim's response. Anim. Behav. Society., (and N. Thornhill).

An evolutionary analysis of rape victim behavior. Amer. Anthropol. Assoc. (and N. Thornhill).

TOOLSON
Physiological adaptation of the cicada, Tibicen dealbatus, 40 short-term changes in desiccation stress. Bull. Ecol. Soc. Amer. 65:123.

VOGEL
Distinct proteoglycan production by explants and fibroblasts in culture from the proximal and distal regions of adult bovine tendon. J. Cell Biol. 99:173a, (and K. R. Campbell, E. J. Keller, P. R. Kerkof, M. J. Gutierrez and R. J. Lenhoff).

Proteoglycan production by bovine tendon explants and fibroblasts in culture. Abstract of the Annual Meeting of the Society for Complex Carbohydrates.

YATES
A reassessment of the contact zone between two chromosomal forms of the southern grasshopper mouse (Genus Onychomys). Junction, Texas Abstract. Annual meeting of the Southwestern Association of Naturalists, (and D. J. Hafner).

The evolution and historical biogeography of the shrew-moles of Japan and North America. Arcata, California Abstract. National meeting of the American Society of Mammalogists, (and D. W. Moore).

Evolutionary affinities among North American tree squirrels (Genus Tamiasciurus): evidence from electrophoretic data. Arcata, California Abstract. National meeting of the American Society of Mammalogists. (with R. M. Sullivan).

The status of Perognathus dalquesti and comments on variation in P. arenarius. Arcata, California Abstract. National meeting of the American Society of Mammalogists, (with M. A. Bogan and K. E. Petersen).

(6). Grant proposals submitted.

ALTENBACH
High-speed 35 mm filming of bat flight sequences. To: Francis Thompson, Inc., New York, NY. 1985. $5,000.

High-speed cinema filming of bat flight for "Nature of Things", Richard Longley, Producer. To: Canadian Broadcasting Corporation. 1984. $500 per shot + expenses. (Funding uncertain.)

BACA
Development of a DNA hybridization probe for the diagnosis of the rickettsial disease Q fever. To: Department of the Army, Army Medical Research & Development, Fort Detrick, Frederick, Maryland. 1985-87. $321,221 (with D. Green and H. Waleh of SRI International). (Pending).

Equipment grant application (electron microscope). To: NSF. 1985. $118,400. (with Robert Chiovetti, et al.). (NA).

BARTON
Anaerobic Metabolism of Mycobacteria. To: NIH, Department of Health and Human Services. 1984-87. $242,256. (Pending).

CATES
Food Quality for black-tailed deer in spruce-hemlock forests. To: USDA, Forest Service. 1983-84. $30,482.

Induced chemistry of loblolly pine with regard to phenology, host resistance and suitability to the southern pine beetle-fungal complex. To: USDA, Forest Service. 1984. $46,474.

Patch dynamics in shrubsteppe ecosystems: Plant chemistry, arthropod distributions, and the role of avian predators. To: NSF. Last of 4 years continuous funding, September 1, 1983 - December 31, 1984. $198,405.

Role of plant secondary chemistry in ecosystems processes. To: NSF. 1984. $203,711.

Response of the Western spruce budworm to geographical variation in terpene, phenolic and nitrogen content of foliage of Douglas-fir. To: UNM Research Allocations Committee. 1985. $1,945.

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CHIOVETTI
Purchase of a transmission electron microscope and ancillary equipment. To: National Science Foundation. 1985. $118,400. (Pending).

Acquisition of a transmission electron microscope. To: National Institutes of Health. 1985. $95,700. (Pending).

CRAWFORD
Spacial patterning in ecological landscapes: transfer processes and boundary dynamics in a semi-arid ecosystem. To: NSF. 4 years. $1,767,410. (Co-PI). (Pending).

Nitrogen mineralization and conservation by detritivore gut symbionts and free-living microbes in a desert dune ecosystem. To: NSF. 3 years. $235,087. (Co-PI). (Not awarded).

DAHM
Nitrogen cycle interactions with chemolithotrophic and heterotrophic processes in Mt. St. Helens impacted lakes and hot water seeps. To: National Science Foundation. 2 years. $355,048.

Nitrogen cycle transformation rates in a Pacific Northwest mountain stream. To: National Science Foundation. 3 years. $359,670.

Invertebrate and microbial processing of fine particulate detritus in stream ecosystems. To: National Science Foundation. 2 years. $247,118.

Role of riparian vegetation in the metabolism and structure of stream ecosystems. To: National Science Foundation. 2 years. $779,358. (Renewal request to Ecosystem Studies award BSR - 8112455).

Biogeochemical significance of thermophilic microbial communities in geothermal wells. To: National Science Foundation. 2 years. $149,937.

DUSZYNSKI
Purchase of a transmission electron microscope and ancillary equipment. To: NSF. 1984. $118,400 (with R. Chiovetti, et al.).

FINDLEY
Reorganization, updating and computerization of recent mammal collections of the Museum of Southwestern Biology. To: NSF. 2 years. $93,000 (with T. L. Yates). (Renewal).

Structure of reef fish communities along a latitudinal gradient on the Great Barrier Reef. To: UNM Research Allocations Committee. 1984. $2,000.

JOHNSON, G. V.
Selection for salt tolerant azolla for biosolar nitrogen fixation in hydroponic culture systems. To: New Mexico Water Resources Research Institute. 1984-85. $10,248.

Development of a model system for in vitro selection of iron efficient plants. To: Competitive Research Grants Office, J. S. Department of Agriculture. 1985-88. $150,955. (Pending).

KERKOF
Purchase of a transmission electron microscope and ancillary equipment. To: National Science Foundation. 1984. $118,400 (co-PI with 4 other members of the Biology Faculty).

Instrumentation grant proposal. To: National Institutes of Health for an Oligonucleotide (DNA) Synthesizer. $45,000 (co-PI with 8 other members of the Biology Faculty).

KOGOMA
DNA replication in E. coli: regulatory mutants. To: NIH. 1984. $732,076, plus indirect cost of $326,941. (Pending).

Regulation of DNA replication in E. coli. To: NSF. 1985-1988. $599,901. (Pending).

Stable DNA replication mutants of E. coli. To: NATO Grants for International Collaboration in Research. 1985. $8,750 (co-PI K. von Meyenburg). (Pending).

Purchase of a preparative ultracentrifuge. To: NSF Biological Instrumentation Program. 1985. $51,806 (co-PI T. Tomasi, D. Bear, J. Griffith).

Plasmid host interactions in tetracycline resistance. To: NIH. 1984. $563,442 (co-PI J. Griffith). (Approved, but not funded).

Purchase of a transmission electron microscope and ancillary equipment. To: NSF Biological Instrumentation Program. 1985. $118,400. (Not funded).

LIGON, J. D.
Sexual selection: an empirical test of the ideas. To: NSF. 1985-1989. $228,000 (co-PI R. Thornhill). (Pending).

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MARTIN
Laboratory improvement. To: Herbarium and Ethnobotany; University of New Mexico Foundation. No specific duration. $9,500.

Computer equipment for herbarium and ethnobotany research and teaching. To: University of New Mexico General Fund. 1985. Equipment only.

Floristic studies, Gila wilderness. To: U.S.F Forest Service. 1985. $8,000.

MOLLES
Convergence in caddisfly assemblages. To: Council for International Exchange of Scholars. 1985-86. Amount varies (support, travel, supplies, etc.) with country of assignment. (Pending).

NATVIG
Phylogenetc analysis of Neurospora using cloned nuclear-DNA hybridization probes. To: NSF. 1985-1987. $128,000.

A random fragment hybridization method applied to the molecular evolution of Neurospora. To: Research Allocations Committee, UNM. Seven months. $2,500.

POTTER
Reassessment of vegetational recovery and ponderosa pine growth eight years after the La Mesa fire, Bandelier National Monument. To: Southeastern Region, National Park Service. May 1, 1985 to November 1, 1986. $21,270. (Pending).

RICE
Disruptive selection on habitat preference and the evolution of reproductive isolation. To: NSF. $115,000.

RIEDESEL
Oral glycerol solutions as an antidote to chemical warfare garments. To: U.S. Air Force, SCEE. May 18, 1984. $11,548.

Overhydration with oral glycerol. To: UNM, RAC. 1984-85. $1,745.

Overhydration with oral glycerol. To: UNM, RAC. 1984-85. $1,793.

Overhydration with oral glycerol solutions. To: UNM Medical School, Clinical Research Committee. 1985. $8,370, plus nursing care of subjects and laboratory support.

TAYLOR
Evolution of diapause induction in the Indian meal moth: experimental tests of a theory. To: NSF, Population Biology. 1985. $160,993. (In review).

THORNHILL
Sexual selection: an empirical evaluation of the ideas. To: NSF. 1985-1989. $229,000 (co-PI with D. Ligon).

TOOLSON
Regulation of transcuticular water flux rates in the cicada Tibricen dealbatus: mechanisms and functional significance. To: NSF. 3 years. $275,000.

Adaptive significance of interindividual variations in cuticle permeability and epicuticular hydrocarbon composition in Drosophila pseudoobscura. To: NSF. 3 years. $165,000.

TRUJILLO
Ligand binding sites of PFK. To: NILT. 3 years. $367,162.

Ligand building sites of phosphofructokinase isolation of plant RNA. To: U.S. Forest Service. 1 year. $24,000.

VOGEL
Proteoglycan structure, metabolism and role in tendon. National Institutes of Health. 1985-88. $357,922.

Purchase of a transmission electron microscope and ancillary equipment. To: NSF. 1984. $118,400 (with R. Chiovetti, et al.).

Bird communities in Australian and North American arid zones. To: National Geographic Society. 1984-85. $5,430.

YATES
Historical biogeography of southwestern montane mammals; a test of the variance and ecological hypotheses. To: National Science Foundation on behalf of R. M. Sullivan. 1 year. $8,000. (Dissertation improvement grant).

State of the art compendium on grizzly bears. To: U.S. Forest Service. 1 year. $50,000.

Host genetic factors affecting specificity of coccidia of small mammals. To: NIH MBRS program. 4 years. $90,047.

Survey of the mammals of Bolivia - genetics. To: National Science Foundation. 3 years. $61,724.

Premanagement laboratory analyses of New Mexico vertebrates. To: New Mexico Department of Game and Fish. 1 year. $20,000.

Reorganization, updating and computerization of recent mammal collections of the Museum of Southwestern Biology. To: National Science Foundation. (Original two-year grant for $100,000 currently in effect; this was a renewal request for an additional $108,000 for an additional 2 years).

(7). Grant proposals funded.

ALTENBACH
Proposal entitled high-speed 35 mm filming of bat flight sequences. 1985. $5,000.

BACA
PHS-NIH-MBRS (RR-08139). 1984-87. $59,339.

NSF (PCM 8010633). 1980-84. $149,434.

BARTON
Characterization of the high affinity Fe(II) transport system in bacteria. NIH-MBRS. 4 years. $80,000.

CATES
Induced chemistry of loblolly pine with regard to phenology, host resistance, and suitability to the southern pine beetle-fungal complex. USDA, Forest Service. 1 year. $46,474.

Role of plant secondary chemistry in ecosystem processes. NSF. 1984, (2nd of three years). $203,711.

DAHM
Nitrogen cycle interactions with chemolithotrophic and heterotrophic processes in Mt. St. Helens impacted lakes and hot water seeps. NSF. 2 years. $60,000 subcontracted to UNM.

Beaver ponds: role in carbon and nitrogen cycling in Pacific Northwest streams. U.S. Forest Service. 1984. $24,269.

DUSZYNSKI
Host genetic factors affecting specificity of the Coccidia of small mammals. NIH. 1984 (1st year of 4 year grant). $21,714.

Coccidiosis of sandhill cranes (Grus canadensis) wintering in New Mexico. NMGF. 1984. $5,250.

FINDLEY
Structure of reef fish communities along a latitudinal gradient on the Great Barrier Reef. UNM Research Allocations Committee. 1984. $2,000.

GOSZ
Prescribed fire effects on water soluble organics and nutrients. U.S. Forest Service. 2 years. $29,200.

Role of plant secondary chemistry in ecosystem processes. NSF. 4 years. $591,989.

JOHNSON, G. V.
Selection for salt tolerant Azolla for biosolar nitrogen fixation in hydroponic culture systems. New Mexico Water Resources Research Institute. 1984-85. $10,248.

KERKOF
Action of TSH on thyroid gland cells in culture. NIHG #2-S06-08139-10. 1984-87. $62,431.

KOGOMA
DNA replication in E. coli: regulatory mutants. NIH. March, 1984 - February, 1985 (3rd year of a three year grant). $100,588.

Genetic and biochemical studies on stable DNA replication in E. coli. NIH MBRS. January, 1984 - December, 1984 (1st year of a four year grant). $9,870.

Application of genetic engineering to non-invasive diagnosis. New Mexico Department of Development and Tourism. June, 1984 - July, 1985 (2nd year of a five year grant). $45,400.

LIGON, J. D.
Population structure and dynamics in the green woodhoopoe. The National Geographic Society. 1984. $5,000.

Supplement of above grant. UNM Research Allocations Committee. 1984. $2,000.

Adaptive significance of avian polyandry. NSF. 1981-84. $88,411.

MARTIN
Laboratory improvement - herbarium and ethnobotany. University of New Mexico Foundation. No time limit. $9,500.

Computer equipment proposal.

Floristic studies - Gila wilderness. U.S. Forest Service. 1984. $800.

MOLLES
Studies of population limiting factors of the Socorro Isopod, Thermosphaeroma thermophilum. New Mexico Department of Game and Fish. 1984-85. $5,000.

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NATVIG
A random fragment hybridization method applied to the molecular evolution of Neurospora. UNM Research Allocations Committee. 1984. $2,500.

POTTER
Vegetative analysis of burro exclosures. Bandelier National Monument. National Park Service. 1984-85. $5,273.

Permanent line transects and clip plots, Cerro Grande Accession, Bandelier National Monument. National Park Service. 1984-85. $8,100.

RICE
Disruptive selection on habitat preference and the evolution of reproductive isolation. NSF. 1984. $115,000.

RIEDESEL
Oral glycerol solutions as an antidote to chemical warfare garments. U.S. Air Force, SCEE. 1984. $11,548.

Overhydration with oral glycerol. UNM RAC. 1984-85. $1,745.

Overhydration with oral glycerol. UNM RAC. 1984-85. $1,300.

Overhydration with oral glycrol solutions. UNM Medical School, Clinical Research Committee. 1984-85. $8,370.

VOGEL
Fibroblast proteoglycans and collagen in extracellular matrix. NIH. NIH-MBRS (S06 RR08139-10). 1984-87. $12,050.

Glycosaminoglycans of the aging cell. NIH Research Career Development Award (AG00114-14). 1981-85. $35,100.

Fibroblast proteoglycans and connective tissue matrix. NIH. 3 years. $181,022.

WIENS
Bird population and community patterns in shrub desert habitats: testing hypotheses of intercontinental convergences. NSF. 1984-85. $10,000.

Bird communities in Australian and North American arid zones. National Geographic Society. 1984-85. $5,430.

Patch dynamics of shrubsteppe ecosystems: plant chemistry, arthropods, and the role of avian predators. NSF. 1984-85. $101,000.

YATES
Host genetic factors affecting specificity of coccidia of small mammals. NIH MBRS program. 4 years. $90,047.
Survey of the mammals of Bolivia - genetics. National Science Foundation 3 years. $61,724.

Premanagement laboratory analyses of New Mexico vertebrates. New Mexico Department of Game and Fish. 1 year. $20,000.

Reorganization, updating and computerization of recent mammal collections of the museum of Southwestern Biology. National Science Foundation. 2 years. $100,000.

(8). Papers/posters presented.

(a). Non-invited papers read or posters displayed.

BACA
Restriction endonuclease analysis of phase I and phase II Coxiella burnetii DNA. Abstract No. D67. Abstracts of the Annual Meeting of the American Society for Microbiology, St. Louis, MO, March 4-9, 1984 (with A. O'Rourke, J. Samuel, D. Natvig, M. Frazier, L. Mallavia).

Cell cycle and generation time of Coxiella burnetii-infected cells. New Mexico Branch of American Society for Microbiology Annual Meeting, Socorro, NM, October 12-13, 1984 (with T. Scott, E. Akporiaye, R. DeBlassie, H. Crissman).

Further studies on phase I and II Coxiella burnetii total genomic DNA. Annual Meeting of the New Mexico Branch of the American Society for Microbiology, Socorro, NM, October 12-13, 1984 (with A. O'Rourke, J. Samuel, D. Natvig, M. Frazier, L. Mallavia).

BARTON
Protoporphyrin formation in the sulfate-reducing anaerobe, Desulfovibrio gigas. The New Mexico Branch of the American Society for Microbiology, Socorro, NM, October, 1984 (with D. J. Klemman).

Evidence for the anaerobic growth of mycobacteria. The New Mexico Branch of the American Society for Microbiology, Socorro, NM, October, 1984 (with J. Gillespie and E. Rypka).

Growth of mycobacteria in oxygen limited environments. American Society for Microbiology, St. Louis, MO, March, 1984 (with J. Gillespie and E. Rypka).

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Protoporphyrinogen oxidation in the strict anaerobe Desulfovibrio gigas. American Society for Microbiology, St. Louis, MO, March, 1984 (with D. J. Klemm).

CATES
Modeling tree susceptibility to bark beetle attack. Entomological Society of America, San Antonio, TX, December, 1984 (with J. H. Peter and Hsin-i Wu).

The resistance-susceptibility characteristics in Douglas-fir to the western spruce budworm. Ecological Society of America, Ft. Collins, CO, August, 1984.

CHIOVETTI
A new approach to low temperature embedding: Quick freezing, lyophilization and direct infiltration in lowicryl resins. American Soc. Cell Biol., Kansas City, MO, November, 1984 (with L. J. McGuffee and S. A. Little).

CRAWFORD
Seasonal cellulose decomposition by detritivore gut symbionts and free-living microbes in a desert dune ecosystem. AIBS - Ecological Society of America, Ft. Collins, CO, August, 1984 (with E. C. Taylor).

Seasonal and spatial patterns of surface-active arthropods in desert habitats. Guild of Rocky Mountain Population Biologists, University of Colorado Mt. Research Station, September, 1984.

DAHM
Nitrogen cycling in lakes altered by the Mount St. Helens volcano. American Geophysical Union/American Society of Limnology and Oceanography Meeting, San Francisco, CA, December, 1984 (with R. C. Wissmar, J. A. Baross and M. D. Lilley).

The effects of source and concentration on the uptake of dissolved organic carbon. American Society of Limnology and Oceanography Meeting, Vancouver, British Columbia, June, 1984 (with A. K. Ward and K. W. Cummins).

Biological responses of lakes in Mt. St. Helen's blast zone: processes and nutrient conditions related to phytoplankton composition and activity. American Society of Limnology and Oceanography Meeting, Vancouver, British Columbia, June, 1984 (with A. K. Ward and J. L. Lay).

Nostoc productivity in Oregon stream ecosystems: invertebrate influcences and differences between morphological types. North American Benthological Society Meeting, Raleigh, NC, May, 1984 (with A. K. Ward and K. W. Cummins).

DUSZYNSKI
Games parasites play: hiding from the host's immune response during sex. Southwestern Association of Naturalists, Junction, TX, April, 1984 (with G. A. Castro).

The Coccidia of Apodemus spp. in Japan. Southwestern Association of Parasitologists, Lake Texoma, OK, April, 1984 (with C. A. Wash).

The incidence of Syndesmis sp. in sea urchins of Discovery Bay, Jamaica. Southwestern Association of Parasitologists, Lake Texoma, Oklahoma, April, 1984 (with L. A. Hertel).

Coccidiosis in sandhill cranes (Grus canadensis) wintering in central New Mexico. Southwestern Association of Parasitologists, Lake Texoma, OK, April, 1984 (with B. B. Parker).

Coccidian parasites from voles (Microtus spp.) collected from the United States, Mexico and Japan. Southwestern Association of Parasitologists, Lake Texoma, OK, April, 1984 (with T. L. Vance).

Coccidiosis in sandhill cranes (Grus canadensis) wintering in central New Mexico. American Society of Parasitologists, Snowbird, UT, August, 1984 (with B. B. Parker).

Co-evolutionary patterns between cricetid rodents and their eimerian parasites. American Society of Parasitologists, Snowbird, UT, August, 1984 (with D. W. Reduker).

FINDLEY
Do patterns exist in butterflyfish communities? Guild of Rocky Mountain Population Biologists, Nederland, CO, September, 1984 (with T. Findley).

GOSZ
AIBS Annual Meeting, Ft. Collins, CO, 1984.

JOHNSON, G. V.
Iron-stress response mechanisms of soybean cell suspension cultures derived from cultivars differing in iron efficiency. American Society of Plant Physiologists, Davis, CA, August, 1984. (Poster).

KERKOF
Distinct proteoglycan production by explants and fibroblasts in culture from the proximal and distal regions of adult bovine tendon. 24th Annual Meeting of the American Society for Cell Biology, Kansas City, MO, November, 1984 (poster

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presented by K. Vogel; other authors, K. R. Campbell, D. J. Keller, M. J. Gutierrez and R. L. Lenhoff).

KOGOMA
Host mutations affecting expression of plasmid tetracycline resistance determinants. Annual Meeting of the American Society for Microbiology, St. Louis, MO, March, 1984 (with J. K. Griffith).

New origins of DNA replication in Escherichia coli: Initiation in the absence of oriC. UCLA Symposia on Molecular and Cellular Biology, Steamboat, CO, April, 1984 (with B. deMassy and O. Fayet).

MOLLES
Stonefly menus: influence of hunger and handling time on composition. Ecological Society of America, Ft. Collins, CO, August, 1984 (with R. D. Pietruszka).

Patterns of case building by caddisfly larvae in the southern Rocky Mountains. Guild of Rocky Mountain Population Biologists, Boulder, CO, September, 1984).

NATVIG
Phylogenetic analysis of Neurospora using clones, nuclear-DNA hybridization probes. Neurospora Information Conference, Asilomar, CA, March, 1984 (with J. W. Taylor). (Poster).

Restriction analysis of Neurospora crassa mitochondrial DNA. Neurospora Information Conference, Asilomar, CA, March, 1984 (with J. W. Taylor). (Poster).

Induction of superoxide dismutase in DNA repair mutants of E. coli. New Mexico Branch of the American Society of Microbiology, Socorro, NM, October, 1984 (with S. Farr and T. Kogoma). (Presented by S. Farr).

Analysis of the genomes of phase I and phase II Coxiella burnettii total genomic DNA. New Mexico Branch of the American Society for Microbiology, Socorro, NM, October, 1984 (with A. T. O'Rourke, J. Samuel, M. Frazier, L. Mallavia and O. Baca). (Presented by A. O'Rourke).

POTTER
Chemical and physical characteristics of Mancos Shale which affect plant growth. Southwest Div., AAAS, Lubbock, TX, March, 1984 (with E. Louderbough).

Geographic variation among soil-based models of reclamation success. Southwest Div., AAAS, Lubbock, TX, March, 1984 (with C. Reith).

RIEDESEL
Responses of hibernating and induced hypothermic Spermophilus lateralis to 100% nitrogen and 4% CO_2. Southwestern Rocky Mountain Division, American Association for the Advancement of Science meeting with Southwest Comparative Psychology Association and the New Mexico Academy of Science, Texas Tech University, March, 1984 (with D. C. Espinosa and J. Griego).

THORNHILL
Human rape: the victim's response. Animal Behavior Society, August, 1984 (with N. Thornhill).

TOOLSON
Effects of short-term desiccation in two components of fitness in Drosophila pseudoobscura. Society of American Naturalists, Crested Butte, CO, June, 1984.

Adaptation of the cicada, Tibicen dealbatus, to short-term changes in desiccation stress. Ecological Society of America, Ft. Collins, CO, August, 1984.

VOGEL
Distinct proteoglycan production by explants and fibroblasts in culture from the proximal and distal regions of adult bovine tendon. J. Cell Biol. 99:173a. American Society for Cell Biology, Kansas City, MO, November, 1984 (with K. R. Campbell, E. J. Keller, P. R. Kerkof, M. J. Gutierrez and R. J. Lenhoff). (Poster).

Data on proteoglycan production by bovine tendon fibroblasts in culture. Gordon Conference on "Proteoglycans", Plymouth, NH, June, 1984. (Presented as poster and short oral/slide talk).

YATES
A reassessment of the contact zone between two chromosomal forms of the southern grasshopper mouse (Genus Onychomys). Annual Meeting of the Southwestern Association of Naturalists, Junction, TX, 1984 (with R. M. Sullivan and D. J. Hafner).

The evolution and historical biogeography of the shrew-moles of Japan and North America. National Meeting of American Society of Mammalogists, Arcata, California, 1984 (with D. W. Moore).

Evolutionary affinities among North American tree squirrels (Genus Tamiasciurus): Evidence from electrophoretic data. National Meeting of the American Society of Mammalogists, Arcata, California, 1984 (with R. M. Sullivan).

The status of Perognathus dalquesti and comments on variation in P. arenarius. National Meeting of the American Society of Mammalogists, Arcata, California, 1984 (with M. A. Bogan and K. E. Petersen).

(b). Invited papers/symposium presentations.

ALTENBACH
Bat specialization: Benefits and costs. National Speleological Society Technical Symposium, Albuquerque, NM, December, 1984.

BACA
Analysis of the genomes of phase I and phase II Coxiella burnetii with restriction endonucleases. 3rd International Symposium on Rickettsiae and Rickettsial Diseases, Smolenice, Czechoslovakia, September, 1984 (with A. O'Rourke, J. Samuel, D. Natvig, M. Frazier and L. Mallavia).

CATES
Evolution of defenses against forest pests. North Carolina State University, Raleigh, NC, January, 1984.

The natural product defenses of douglas-fir and budworm success. University of Arkansas, Fayetteville, AR, February, 1984.

Patterns in the production of defensive chemistry of Douglas-fir and spruce budworm success. Texas A & M University, College Station, TX, April, 1984. (Distinguished Lecture Series, Department of Entomology).

Variability in secondary chemistry as a defensive strategy. East Texas Forest Entomology Seminar, Lufkin, TX, April, 1984.

Role of budworm/host plant interaction in budworm population dynamics. Canada/United States Spruce Budworm Research Symposium, Bangor, ME, September, 1984.

Effect of stress on patterns in the production of natural plant products. Agronomy Society of America, Las Vegas, NV, November, 1984.

Role of organics in ecosystem processes. Long Term Ecological Research Workshop, Lake Itasca, MN, March, 1984 (with J. Gosz and I. Harner).

Tree vigor and foliage quality effects on western spruce budworm success. Silvicultural Strategies for Western Spruce Budworm, Missoula, MT, August, 1984.

CRAWFORD
Biology of scorpions. Symposium at the American Arachnological Society, Los Angeles, CA, June, 1985. (Invitation declined.)

DAHM
Physical factors controlling phytoplankton photosynthesis. Response of the phytoplankton community to extraordinary optical, thermal, and nutrient properties of Crater Lake, Oregon. Second International Workshop, The Group for Aquatic Primary Production (GAP), Haifu, Israel, May, 1984 (with D. W. Larson and N. S. Geiger).

Conservation and management of world lake environments. Is water pollution causing optical deterioration of Crater Lake, Oregon, U.S.A.? Shiga Conference, Shiga, Japan, August, 1984 (with D. W. Larson).

JOHNSON, G. V.
Eutrophication in small water impoundments. Committee on Arid Zone and Desert Research, Southwestern and Rocky Mountain Division of AAAS, Texas Tech University, Lubbock, TX, March, 1984.

KOGOMA
The characteristics of rnh mutants of E. coli. Symposium on Growth of the Bacterial Cell: Copenhagen Perspective, Tuscaloosa, AL, April, 1984.

MOLLES
Fish and wildlife research. University of New Mexico Workshop on Fish and Wildlife Research Needs in New Mexico, Albuquerque, NM, October, 1984.

POTTER
Presentation of the Leopold Conservation Award. Annual Meeting of New Mexico Nature Conservancy, El Rancho de las Golondrinas, NM, October, 1984.

RICE
Disruptive selection on habitat preference and the evolution of reproductive isolation: An exploratory experiment. State University of New York, Binghamton, NY, 1984.

The evolution of dimorphic sex chromosomes. State University of New York, Binghamton, NY, 1984.

TAYLOR
The evolution of the timing of diapause inducton in arthropods. XVII International Congress of Entomology, Hamburg, Germany, 1984.

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THORNHILL
Male/female strategies. American Anthropological Association, Denver, CO, November, 1984.

An evolutionary analysis of rape victim behavior. American Anthropological Association, Denver, CO, November, 1984 (with N. Thornhill).

Invited to criticize symposium papers (Evolution of human behavior). American Anthropological Association, Denver, CO, November, 1984.

What controls the operation of sexual selection? Guild of Rocky Mountain Population Biologists, Boulder, CO, September, 1984.

Relative parental contribution of the sexes in their offspring and the operation of sexual selection. The Evolution of Behavior Symposium, Field Museum of Natural History, Chicago, IL, May, 1984.

VOGEL
Fibroblasts of different regions of flexor tendon. Workshop on Tissue Culture at Midwest Connective Tissue Workshop, Rush-Presbyterian/St. Luke's Medical Center, Chicago, IL, November, 1984.

WIENS
Spatial scale and temporal variation in ecological systems: A view from the shrubsteppe. Symposium on Community Ecology, Los Angeles, CA.

Visiting ecologist, one week lecture series. University of Calgary, Calgary, Alberta, Canada.

Zoology visiting professor, one week lecture series. University of Alberta, Edmonton, Alberta, Canada.

(c). Invited seminars.

ALTENBACH
Feeding and flight specialization in bats of the Southwest. Simms Cabin Speaker Series, April, 1984.

BACA
Some biological aspects of the Q fever agent Coxiella burnetii. Guy's Hospital Medical School, Biochemistry & Chemistry Departments, London, GB, September, 1984.

CATES
Evolution of defenses agsinst forest pests. North Carolina State University, Raleigh, NC, January, 1984.

Patterns in the production of defensive chemistry of Douglas-fir and spruce budworm success. Also, one beast's drink is another beast's poison: The evolutio of plant defenses. Distinguished lecture series, Texas A & M University, College Station, TX, 1984.

CHIOVETTI
Alternative approaches to specimen preparation. UNM, School of Medicine, Departments of Anatomy and Pharmacology, Albuquerque, NM, 1984.

Advantages of low temperature embedding. Life Science Division, Los Alamos National Laboratories, Los Alamos, NM, 1984.

DAHM
Life at extreme temperatures: marine hydrothermal ecosystems and Mt. St. Helens. Los Alamos National Laboratory, Los Alamos, NM, November, 1984.

Dissolved organic carbon in streams: sources, uptake, and nutritional role. U.S. Geological Survey, Water Resources Division, Denver, CO, October, 1984.

Dissolved organic carbon: cycling, characterization, and role in aquatic ecosystems. Portland State University, Portland, OR, February, 1984.

GOSZ
University of California, Riverside, CA, 1984.

University of Washington, Seattle, WA, 1984.

JOHNSON, G. V.
Biological effects of ionizing radiation. UNM Radiation Safety Department's Course, Introduction to Radiation Safety. February and June, 1984.

KOGOMA
UNM Cancer Center, Department of Cell Biology, Albuquerque, NM, February, 1984.

Department of Cell Biology, Mayo Clinic, MN, November, 1984.

LIGON, J. D.
Colorado State Univesity, Department of Zoology, CO, 1984.

Presentation of Committee's Work at ICBP meeting. Colorado State University, CO, 1984.

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MARTIN
Morphology, chemistry and symptomatics of poisonous plants. Medical Grand Round, Lovelace Foundation and Hospital, Albuquerque, NM, May, 1984.

Wild plants of horticultural value. University of New Mexico, Architecture Department, Albuquerque, NM, 1984.

MOLLES
Ecology of stream insect communities. University of California at Santa Barbara, Department of Biological Sciences, February, 1984.

NATVIG
Random-fragment hybridization analysis. UNM Cancer Center, Molecular Biology Discussion Group, November, 1984.

POTTER
The Leopold Conservation Award. Annual Meeting of the New Mexico Nature Conservancy, El Rancho de las Golondrinas, NM, October, 1984.

RIEDESEL
Overhydration with oral glycerol solutions. Brooks Air Force Base, School of Aerospace Medicine, TX, September, 1984.

THORNHILL
Department of Biology, Princeton University
Freed Station, rockefeller University
Department of Biology, McGill University
Department of Zoology, University of Maryland
Department of Biology, University of California, Santa Barbara
Institute of Terrestrial Ecology, Furzebrook Research Station, Dorset, England

TRUJILLO
UTMB, Department of Biochemistry, Galveston, TX, 1984.

Mahary Medical College, Department of Biochemistry, Nashville, TN, 1984.

VOGEL
Texas Tech University, Department of Anatomy, Lubbock, TX, January, 1984.

UNM School of Medicine, Albuquerque, NM, March, 1984.

Mineralized Tissue Research Branch, National Institute of Dental Research, NIH, Bethesda, MD, March, 1984.

Department of Pediatrics, Stanford University School of Medicine, Palo Alto, CA, May, 1984.

Department of Anatomy, University of California School of Medicine, San Francisco, CA, May, 1984.

WIENS
Visiting lecturer. Alaskan Wilderness and Wildlands Planning & Management Program, San Francisco State University, CA, 1984.

YATES
Chromosomal conservatism in the evolution of fossorial Talpids; lack of support for deme-size drift arguments. Texas A & M University, Department of Biology, College Station, TX, 1984.

(9). Journal editor.

WIENS
Editor, The Auk, through August, 1984.

YATES
Managing Editor, Museum of Southwestern Biology Publications.

Advertising Editor, Southwestern Naturalist.

(10). Member of editorial board.

CRAWFORD
Journal of Arid Environments
Scientific Reviews on Arid Zone Research

DUSZYNSKI
Journal of Protozoology. (Elected).

VOGEL
European Journal of Cell Biology

WIENS
Biological Abstracts, 1984-1986. (Editorial consultant).

(11). Officer/board member, major professional society/granting agency.

BACA
Treasurer and board member (elected), The Society for the Advancement of Chicanos and Native Americans in Science

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BARTON
Vice President, New Mexico Branch of American Society for Microbiology

CATES
Oversite review panel member, 1984, National Science Foundation

DAHM
Peer review panel member, 1982- , National Park Service, Crater Lake National Park Water Quality Study

DEGENHARDT
Parliamentarian, New Mexico Herpetological Society

DUSZYNSKI
Member of executive council (elected), American Society of Parasitologists

Regional representative (elected), National Parasitology Council, Southwestern Association of Parasitologists

FINDLEY
Member, Board of Directors, American Society of Mammalogists

GOSZ
Program Director, Ecosystem Program, National Science Foundation

KOGOMA
The NIH Microbial Physiology and Genetics Study Section, 1984

VOGEL
The NIH Cell Biology and Physiology Study Section, 1984-88

Vice Chair (elected), American Society for Cell Biology, Women In Cell Biology, 1985

YATES
Recording secretary, member of Board of Governors, American Society of Mammalogists

Member of Board of Governors, Southwestern Association of Naturalists

(12). Service.

ALTENBACH
Grant-in-Aid Committee, American Society of Mammalogists.

Consultant for Francis Thompson, Inc. involving filming of bat sequences for Smithsonian Air and Aerospace Museum Film, "On the Wing". GAB

Reviewed papers for J. Mammalogy (2)

Bats and bat flight. Lecture to New Mexico Audubon Society, Albuquerque, NM, February, 1984.

Taught Biology classes at Del Norte High School, November, 1984.

Member, Undergraduate Policy Committee.

Member, Teaching Resources Committee.

BACA
New Mexico Academy of Sciences Visiting Scientist Program: Clovis High School, January 10, 1984; presentatons on microbiology to approximately 430 students.

Science Fair Judge for the Engineering MESA program; June 29, 1984.

Graduate Research Paper Competition (selection committee) Sponsors: GSA, SHRI.

On-going collaborative research with H. Crissman of LANL - selected to participate as an investigator utilizing the LANL National Flow Chart Cytometry Resource (Grant P41-RR01315).

Applied microbiology (American Society for Microbiology Journal).

Infection and Immunity (ASM Journal).

Participated in the Biology Department's Parent's Day Homecoming Tour of Biology.

Conducted a workshop on Microorganisms for the Pharmacy Dental Careers Program in the Department, June 22, 1984.

Asked by Leonard De Layo, Superintendant of Public Instruction, to serve as a member of a Specialty Area Test Panel (served).

KNME Channel 5 Fund Drive - worked the telephones with others of the Provost's Office/Graduate School.

Undergraduate Policy Committee.

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Coordinated the Cell/Molecular/Micro noon seminar.

Institutional Biosafety Committee (appointed Chairman, 1984; member since 1980).

Vice-Chairman of the Southwest Hispanic Research Institute's Policy Board.

Hispanic Engineers' Advisory Council.

UNM/Albuquerque School's Liaison Committee (re-appointed by V. P. Johnson).

Sandia-University Research Program Committee.

UNM/Biomedical Research Support Program Advisory Board.

Graduate student recruitment trip for the graduate school to Los Angeles/San Diego Universities, March 13-15, 1984.

BARTON
A volunteer for APS high school science classes. Presented four lectures on November 29 at Sandia High to enable teachers to attend National Science Teachers' Meeting in Albuquerque.

Reviewed papers for Canadian Journal of Microbiology (2)

Served as Curator of Microbiology Culture Center.

Graduate Student Selection Committee.

BOURNE
Undergraduate Policy Committee.

Students' Standards Committee.

CATES
Ecological Society of America Awards Committee: MacArthur Award.

Northwestern NM Regional Science and Engineering Fair Judge, 1984.

Presider at National Science Teachers' Association Meetings, December, 1984.

Member of the National Teachers' Examination Specialty Area Test Committee for New Mexico.

Reviewed papers for Bioscience (2), American Naturalist (2), Ecology (2), Science (1)

Reviewed grant proposals for NSF: Ecosystem (3), Ecology (2), Population Biology (2); Cottrell College Science Grants (1) 650

First counselor, Albuquerque, NM South Stake Presidency.

Counselor for scouting.

Provided laboratory support, guidance, and direction for Science Fair students.

Graduate Policy Committee.

Greenhouse Committee.

Waste Disposal Committee.

A & S Graduate School Policy Committee.

Faculty Senate Member.

CHIOVETTI
Membership Committee, Society of Protozoologists.

Constitutional Review Committee, Society of Protozoologists.

Rocky Mountain Sciences - electron microscopy/photography, paid consultant.

Los Alamos National Laboratories - low temperature embedding, paid consultant.

Department of Pathology, UNM School of Medicine - low temperature embedding.

Department of Anatomy, UNM School of Medicine - low temperature embedding.

Department of Pharmacology, UNM School of Medicine - low temperature embedding.

VA Hospital - low temperature embedding.

Department of Chemistry, Cornell University - low temperature embedding.

Department of Physiology and Cell Biology, University of Kansas - low temperature embedding.

Reviewed papers for J. Cell Biology (1), Er. J. Cell Biology (2)

2 tours of EM facility, Sombra del Monte Elementary School.

2 tours of EM facility, Parents' Day.

Boys and Girls Committee, Albuquerque Host Lions' Club.

Organizing Committee, public lecture by Dr. Elisabeth Kubler-Ross, Popejoy Hall, February, 1984.

EM Director.

CRAWFORD
Manuscript reviews for colleagues and graduate students at UNM and elsewhere (e.g., USDA Biol. Control of Insects Laboratory, Tucson, AZ).

Invited to become a member of an advisory committee of The New Mexico Natural History Museum. Accepted membership on the Zoology Committee.

Reviewed grant proposals Council for Scientific and Industrial Research, South Africa (1), NSF (1)

Talk on insects at Kirtland Elementary School, fourth grade, April 26, 1984.

Regular identification of arthropods for anyone making a request.

Sevilleta National Wildlife Refuge Committee.

Library Liaison.

Chairman's Advisory Committee.

Curriculum Committee.

DAHM
Consultant to U.S. Forest Service, beaver activity and their effects on juvenile salmonids. Supervisor - Dr. J. R. Sedell, Forestry Sciences Laboratory, 3200 Jefferson Way, Corvallis, OR 97331.

Reviewed papers for Geochimica et Cosmochimica Acta (1), Organic Geochemistry (1), Journal of Freshwater Biology (1)

Seminar Committee.

DEGENHARDT
Assisted Elizabeth Swanson in Herpetology Program for the New Mexico Association for Environmental Education (NEWMAEE).

Reviewer for Big Bend National Park Biosphere Reserve under the Man and the Biosphere (MAB) Program.

652

Reviewed grant proposals for NSF: Population Biology and Physiological Ecology (2)

Dr. Fourier's Travelling Ecology Class - May 21, 1984 (Johnson Community College, Overland Park, KS).

Test analysis for biology and general science - April 23, 1984 (Teacher evaluation for science teachers by State Department of Education).

Curator of Herpestology Division, MSB.

DUSZYNSKI
Departmental Chairman.

Pre-Veterinary Medicine Advisor.

Potter Retirement Committee.

Science Education Advisory Committee.

Session Chairman: "Zoology-Parasitology," 14 April at 17th Annual Meeting, SWAN, Junction TX.

A & S Committee to form College of Natural Science.

Reviewed papers for the Journal of Parasitology (2), Journal of Protozoology (8), and Systematic Parasitology (1)

Member, Public Responsibilities Committee, American Society of Parasitologists (ASP)

Member, Graduate Student Awards Committee, ASP

Archivist, SWAP

FINDLEY
American Society of Mammalogists: Honorary Membership Committee and Merriam Award Committee.

Silver Burdett Company, review of manuscript of laboratory manual in Vertebrate Zoology.

Reviewed papers for Journal of Mammalogy (2), American Naturalist (2), Ecology (1)

Reviewed grant proposals for National Geographic Society (1), NSF (3)

Member, LDP Committee.

Director, Museum of Southwestern Biology.

Treasurer, Biology Society of New Mexico.

Graduate Policy Committee.

Village of Corrales Bosque Advisory Board.

GOSZ
NSF - many refereed proposals.

JOHNSON, G. V.
Committee on desert and arid zone research (CODAZR), Southwestern and Rocky Mountain Division of American Association for Advancement of Science, (Committee Chairman).

Reviewed papers for Southwestern Naturalist (1), U. S. Forest Service (1), Rocky Mountain Forest & Range Experiment Station (1)

Consultant for Science Fair projects for gifted students, Taylor Middle School, November 20, 1984.

4-H Club Project Leader (Conservation).

Judge for science projects of minority high school students attending summer science program at UNM (June 29, 1984).

Undergraduate Advisor.

Plant Ecologist Search Committee.

Radiation Control Committee.

JOHNSON, W.
Reviewed 19 chapters of the proposed second edition of Genetics by Farnsworth, (Harper & Row Publishers).

Member of Welcome Back Daze Lobo Patrol (advisement).

Organizer of Parents' Day for Biology.

Organizer of Senior Day for Biology.

Completed UNM Biology Articulation matrix for credit transferability of courses taught at all other state institutions.

Departmental Transfer Student Adviser.

Reviewer, APS Science Forum.

Undergraduate Policy Committee, Assistant Chair.

Student Standards and Grievance Committee.

654

UNM Administrator Evaluation Committee (Dean of Admissions and Records).

KERKOF
Presented seminar in the Cell/Molecular/Micro seminar on April 17, 1984. Effects of TSH on thyroid cells in culture.

Supervised one graduate teaching assistant and one laboratory preparer each semester.

Directed research of minority students under MBRS program.

Seminar Speakers' Committee, Departent of Biology, 1984.

UNM Admissions and Registration Committee.

UNM Radiation Protection Subcommittee.

Credentials Component of the Health Science Advisory Committee.

Minority Biomedical Research Support Selection Committee.

UNM Radiation Protection Subcommittee.

Minority Biomedical Research Support Selection Committee.

UNM Admissions and Registration Committee.

UNM Radiation Protection Subcommittee.

UNM Research Allocations Committee.

Credentials Component of the Health Science Advisory Committee.

Minority Biomedical Research Support Selection Committee.

KOGOMA
Sponsor for the Summer Research Assistantship Program (APS).

Graduate Policy Committee.

Research Allocations Committee.

LIGON, J. D.
Chairman, Committee on the Conservation of the Red-cockaded Woodpecker. Sponsored by the American Ornithologists' Union, The National Audubon Society and the International Council for Bird Preservation.

Member, Membership Committee, American Ornithologists' Union.

655 Member, Committee on Biography, American Ornithologists' Union.

Consultant for article Smithsonian Magazine.

Reviewed papers for American Naturalist (4) Animal Behavior (2) Auk (1)

Consultant for book chapter in "The Evolution of Behavior," University of Chicago Press.

Reviewed grant proposals for NSF (4)

Talk to Audubon Society.

Two talks to Sandia Mountains Wildlife Society.

Provided information for major articles in local newspapers (as did some of my students).

Curator of Birds.

Dean's Promotion Committee.

LIGON, S.
Undergraduate Policy Committee - member.

Teaching Evaluation Committee.

Laboratory Animal Care and Use Committee - member.

MARTIN
Poisonous plants, SW flowering plants, and plants for horticultural use consultantships.

Reviewed papers for Ethnobotany (2), University of New Mexico Press (2)

Parents' Day.

Senior Day.

Museum and Greenhouse Tours.

Sponsor of U.S. Forest Service Plant Identification workshops five day meetings - spring and fall.

Cooperation with Albuquerque Garden Club - Ghost Ranch Horticultural meeting for Fall, 1985.

Cooperation with the State of New Mexico Natural Resources Department in studies of rare or endangered species.

Provision of an identification service for individuals in the surrounding community, for hospitals, and for various governmental agencies - for fungi and flowering plants, for poisonous and non-poisonous taxa.

Member of the University Outreach Program - Presidential recognition for 1983 and 1984.

Associated with the Museum of Natural History of Los Angeles as a Research Associate and active in Southern California botanical studies.

Active in the promotion of a regional botanical garden, sponsored in part by the University of New Mexico.

General advisement (Undergraduate Advisor).

Preforestry Advisor.

Curator of the Herbarium.

Potter's Replacement Committee.

Potter's Retirement Committee.

Sevilleta Committee.

UNM Faculty Senate.

Faculty Senate Library Committee.

UNM Press Advisory Committee.

Botanical Advisory Committee, New Mexico Museum of Natural History.

Advisory Committee - Rio Grande Valley Botanical Garden.

Sandia Colloquium.

UNM Committee for Southwestern Studies.

MOLLES
Water-based recreation study, Southeast Land Research, Inc., Albuquerque, NM, 1984, consultantship.

Reviewed papers for J. Freshwater Ecology (1), Ecology (1)

Reviewed grant proposals for NSF (5)

657

Appointed to Zoology Advisory Committee for New Mexico Museum of Natural History.

Curator of Fishes.

Search Committee: Freshwater Biologist.

Graduate Student Selection Committee.

Undergraduate Advisory Committee.

NATVIG
Graduate Student Selection Committee.

Seminar Speaker Selection Committee.

Physiological Plant Ecologist Search Committee.

POTTER
Chairman of Environmental Science Section, Southwest Division of AAAS, Lubbock, TX, March 28-31, 1984.

University delegate and member of Board of Eisenhower Consortium for Western Environmental Forestry Research, two meetings a year.

Professional consulting for Rocky Mountain Region, National Park Service on Ecological problems.

Departmental Committee for two on survey of Biology graduates.

Departmental newsletter.

Biological Society of New Mexico.

Chairman, Departmental Graduate Selection Committee, Semester II, 1983-1984.

RICE
Reviewed papers for American Naturalist (4)

Reviewed grant proposals for NSF (4)

Have consulted for faculty and graduate students in computer use and statistical analysis.

RIEDESEL
Member, Executive Committee, Sigma Xi, UNM Chapter.

Regional Science Fair Judge, March 16, 1984.

Southeastern Center for Electrical Engineering Education, 27 days, 1984, consultantship.

Science Forum of the Contemporary Issues in Science Program, 1984, APS.

Visiting Scientist, Manzano High School, November 30, 1984.

Reviewed papers for Physiological Zoology (1), Medicine and Science in Sports and Exercise (1)

Reviewed grant proposals for NSF (2)

Animal Care and Use Committee.

Research Policy Committee.

RPC Subcommittee on Overhead & Budget Review.

TAYLOR
Reviewed papers for Annals of the Entomological Society of America (2), Environmental Entomology (4)

Reviewed grant proposals for NSF (4), USDA (1)

Population Geneticist Search Committee.

THORNHILL
Review and critique book manuscripts for potential publishers. Harvard University Press - 1 book, Princeton University Press - 1 book, Addison-Wesley - 1 book.

Reviewed manuscripts for colleagues before their submission: 50 papers (estimated). I read and critique approximately one-half of the papers sent to me by graduate students and professors in behavior and evolution.

Review grant proposals for NSF (17), National Geographic, (3) Smithsonian Grants (3)

Talked on my research at New Mexico Audubon Society, April, 1984.

Reviewed papers for Science (5), Behavior (1), Animal Behavior (5), American Naturalist (3), Annals of the Entomological Society of America (4), Quarterly Review of Biology (1), Brain and Behavioral Science (1), Zeitschrift fur Tierpsychologies (3), Evolution (2), Southwestern Naturalist (2) Auk (1), Behavioral Ecology and Sociobiology (4), Ecology (1)

Community Service - 4th Entomology Leader-Valencia County.

Graduate Selection Committee.

Population Geneticist Job Committee.

Graduate Fellowships and Awards Committee.

TOOLSON
Biology Teacher Certification Test Evaluator for New Mexico.

Reviewed papers for J. Arachnol. (1), J. Insect Physiology (1)

Reviewed grant proposals for NSF (12)

Freshwater Biologist Selection Committee.

Graduate Policy Committee.

A & S Graduate Committee.

TRUJILLO
American Society Biological Chemistry, member.

VOGEL
Public Policy Committee and Legislative Action Committee; American Society for Cell Biology.

Reviewed papers for European Journal of Cell Biology (13), Journal of Biological Chemistry (3), Cancer Research (1), Connective Tissue Research (1), Experimental Cell Research (2), Developmental Biology (1)

NIH, Cell Biology Study Section, two sessons - primary reviewer on 18 proposals; sessions considered about 200 proposals total.

Reviewed grant proposals NSF: Developmental Biology (3)

Parent's Day Tour - one Saturday morning in October.

Teaching at Taft Middle School, classes of two teachers for entire day (6 periods) so teachers could attend Science Teachers' Symposium in Albuquerque, November, 1984.

Seminar Committee, Fall, 1984.

Research Policy Committee.

Interdisciplinary Research Committee (subcommittee of Research Policy Committee).

Search Committee for Assistant Provost.

WIENS
Chairman's Advisory Committee.

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Sevilleta National Wildlife Refuge Study Committee.

A & S Graduate Committee.

YATES
Systematic Collections Committee - American Society of Mammalogists.

Chairman, Development Committee - Southwestern Association of Naturalists.

Led outside review team for reviews of mammalogy program at Texas A & M University and Humbolt State University.

Reviewed papers for J. of Mammalogy (2), Mammalian Species (2), Evolution (3), Auk (2), Systematic Zoology (2), Transaction Kansas Academy of Science (1), Southwestern Naturalist (3), Science (1)

Reviewed grant proposals for NSF (21), National Geographic Society (1)

Curator of Mammals.

Gave numerous tours of the Mammal Museum.

Served as a member of the Board of Directors of the Faculty Club.

Gave presentation on mammals to 2nd graders at Longfellow Elementary School.

Sponsored student in APS Career Enrichment Program.

Graduate Policy Committee.

Animal Use Committee.

University Task Force on Computer Literacy.

(13). Special category

ALTENBACH
Outstanding Teacher of the Year, University of New Mexico, 1983-1984

BACA
Asked by the Czechoslovak Academy of Sciences to Co-Chair the 3rd International Symposium on Rickettsiae and Rickettsial Diseases held in Smolenice, Czechoslovakia

Recipient of an Administrative Internship in the Office of the Provost

BARTON
Listed in Who's Who in Technology Today. 4th edition. Chemistry and Biotechnology.

CATES
Distinguished Lecture Series: Texas A & M University, presented two lectures

CRAWFORD
Invited by the University of Kuwait to be a Visiting Professor for three weeks in Spring, 1985. Accepted.

DUSZYNSKI
Listed in Who's Who in Technology Today - 4 edition. 1984

Advertising Editor, The Journal of Protozoology

GOSZ
Program Director, Ecosystems Program, National Science Foundation, Washington, D.C.

JOHNSON, G. V.
Attended UCLA Symposium on Cellular and Molecular Biology of Plant Stress, Keystone, CO

VOGEL
Research Career Development Award, NIH, January 1, 1981 - December 31, 1985

Presidential Professorship, (Junior Rank), The University of New Mexico, 1984-1985

WIENS
Fullbright Senior Scholar Award for studies in Australia, 1984-1985

Visiting Professor, School of Biological Sciences, The University of Sydney, Australia

YATES
Appointed as one of two American members on an International Commission on Systematic Collections organized by the U.S.S.R.

9. Museum of Southwestern Biology (MSB). The MSB consists of six divisions each with its own curator: Mammalogy (Yates), Ornithology (D. Ligon), Herpetology (Degenhardt), Ichthyology

(Molles), Invertebrates/Aquatic Invertebrates (Crawford), and the Herbarium (Martin). Dr. J. S. Findley is Director of the MSB and acts to coordinate the activities of the entire museum process. Four of the six curators have submitted annual reports to date (for 1984) and the following summary of MSB activities is based on their contributions.

The functions of the MSB are research, education and service. These functions are reflected in the categories summarized in the next paragraph, but it must be kept in mind that these are only indices to a fairly complex and far-reaching operation. Dr. Findley has lumped the counts from the various divisions, but a breakdown of the information for each division is on file in his office if needed.

Summary of Activities: Visitors--574, outgoing loans--87, incoming loans--99, serviced courses--16+, specimens accessioned--28,609+, publication--19, reports (contracts, non-refereed)--37, papers read at meetings--26, papers under review, ms, etc.--56, research projects underway--51, proposals written--12, proposals funded--20 ($280,000+), theses--2, dissertations--3, phone queries from public--2000+, written queries from public--600+.

Finally, during October 1984, the Committee on Systematic Collections, American Society of Mammalogists, visited the Mammal Division of the MSB for reaccreditation. Their report is included in the Appendix (item C).

10. Castetter Laboratory for Ethnobotanical Studies (CLES). The CLES provides modern vegetation studies and

paleoethnobotanical analyses in coordination with archaeological investigations. The staff feels that polen, flotation, macro-botanical, and coprolite studies are inter-related and together provide invaluable information about prehistoric and historic plant utilization, subsistence strategies, and environment. The CLES offers archaeologists the opportunity to work with a team of specialists as a means of integrating such studies. Their experience has shown that the quality of botanical data is improved when specific goals are designated and a flexible set of sampling priorities generated to fit the particular site or region. In addition, attention paid during excavation to sampling methods and site characteristics (e.g. stratigraphic context, primary vs. secondary deposition, evidence of rodent activity, exposure to modern pollen and seed rain) can maximize efficient retrieval of data. They can provide guidelines or consultation to help design and implement a sampling plant appropriate to a particular project, as well as set of research questions and budget.

Members of the lab include: Karen H. Clary, M.S. Anthropology, UNM; Anne C. Cully, M.S. Biology, UNM; Mollie S. Toll, M.A. Anthropology, Loyola University, M.S. Biology, UNM; Beth S. Crowder, B.S. Biology, UNM. All have backgrounds in field archaeology in addition to biological training. Their office and laboratory are associated within the UNM Biology Department, which provides extensive reference collections established in the Herbarium as well as human resources reflecting a wide variety of biological expertise. While they have part-time help for work such

as pollen extraction, typing, and data tabulation, it is stressed that all microscopic sorting of pollen, flotation, and coprolite samples and description and measurement of macrobotanical specimens are performed only by Clary, Crowder, Cully and Toll.

Their ethnobotanical work has centered on the San Juan Basin in northwestern New Mexico and the Four Corners area (i.e. Chaco and Chacoan outliers, the Chuska Valley, the Navajo Indian Irrigation Project, and the Alamito and Pittsburgh-Midway Coal leases) but has also extended to east central Arizona; southeast, southwest, and north central New Mexico; Southwest Colorado; Texas; the Midwest; and Central and South America. They have worked with periods ranging in time from the Archaic to the historic era.

The CLES can provide five basic types of studies for interested scientists and/or organizations: (1) modern vegetation surveys; (2) pollen analysis; (3) coprolite analysis; (4) macrobotanical remains; and (5) flotation analysis.

Finally, an update of the research and scholarly activities of the CLES staff for FY 1984-85 is provided in the Appendix (item, D).

11. Electron Microscope Facility. The Department's EM facility is ably directed by Dr. Chiovetti. A summary of the facilities is included in his annual report (Appendix, item E).

12. Biology Department Land Holdings. The Department has certain land holdings that have been donated over the years. These include (a) a cabin near Valle Grande in the Jemez Mountains on Forest Service Property; (b) one home site (about 2 acres) on the West Mesa of Albuquerque (acquired February 1972 from Harry Ross);

two other home sites were traded to UNM for cash in April 1985 (see below); (c) a parcel of 640 acres on the east side of Mount Taylor (acquired Spring 1979, anonymous donor); and (d) 160 acres of land located 23 miles south of Grants, New Mexico off highway 53 in the Malpais country (acquired December 1983 from Larry Abraham).

13. Biology's First Endowed Chair: The L. D. Potter Chair in Plant Ecology. The general area of "plant ecology/field botany" has a strong tradition in our Department since the first course with that title was taught in FY 1908-09. When Dr. Potter informed me of his intention to retire in June 1985, it seemed entirely appropriate to honor his research efforts in field plant ecology not only because of his personal contributions to the discipline and to our Department over the years, but because we recognize the importance of plant ecological studies as they pertain to our natural resources. Thus, the idea to set up an Endowed Chair in his honor was conceived and a goal of generating $100,000 to support the Chair was established.

With the help and approval of President Farer, two home sites (about 4.1 acres) on the West Mesa, previously donated to this Department in 1972, were traded to UNM for their appraisal price ($64,000), minus the cost of the appraisal ($785). The amount of $63,215 was then placed into a Trust Fund, called the Ross-Brown Endowment after the original donors of the land, within the UNM Endowment Fund. Endowment income from this account will be added to the principal for the next six fiscal years. Beginning July 1, 1991, the investment income from the principal at that time will be

used to supoort the research program of the Loren D. Potter Chair of Plant Ecology.

Additional funds for the Potter Chair were solicited through the Biological Society of New Mexico and through a general mailing to 1416 Biology alumni, announcing Dr. Potter's retirement (Appendix, item F), through the UNM Foundation. To date, these activities have generated an additional $7,000 and have been combined into a single account in the UNM Foundation. Specific stipulations on setting up the Potter Chair and how the money is to be used in the future by the UNM Endowment Fund and the UNM Foundation are detailed in the Appendix (items G, H, respectively).

B. Plans and Recommendations

The basic substance of the plans and recommendations detailed in last year's report (FY 1983-84) remains unchanged and need not be repeated here. Some objectives have been accomplished (new, more flexible undergraduate curriculum), others are in the works (development of a B.A. program, early retirement package for non-productive faculty), some are, as yet, unrealized (new building) and certain new directions will be discussed with much enthusiasm during the current FY (see recommendation of the outside review of our graduate program, Appendix, item B).

C. Appointments to Staff

January	Deborah Schippert replaced Linda DeVries as Clerical Specialist V.
	Carolyn Hill hired as Clerical Specialist IV (Temporary).
February	Brigitte Wilson replaced Sandra Mitchell as Clerical Specialist IV.

March — Peter Curtiss replaced Walter Joyce as Storekeeper.

April — Patricia Arthur replaced Maida West as Office Manager.

D. Separations from Staff

August — Sandra Mitchell left department to accept a higher paying position with Albuquerque Public Schools.

December — Walter Joyce retired from the University

January — Linda DeVries left department to continue her education at the University on a full-time basis.

February — Maida West left department to accept position with another department within the University.

June — Yevonn Ramsey left department to do free-lance work.

E. Sponsored Research

Records on grant proposals submitted to outside agencies are kept in our Department on an annual basis (i.e., by year). The information here is for 1984: (a) during 1984, 25 of our 30 faculty (83%) submitted 60 proposals to outside agencies; (b) during 1984, 21 of our 30 faculty (70%) received new awards or renewal of previously awarded grants totaling 43 separate awards.

The outside contracts in force in our Department on 30 June 1985 totaled $3,124,955. This information is summarized, by faculty member, in Table I (next page).

Table II. Active Research Grants/Contracts Held by Department of Biology Faculty as of 30 June 1984.

Faculty Member(s)	Agency	Title	Current Dollar	Total Amount of Award
Baca	MBRS	Phase variation in Coxilia burnetti	$ 21,345	$ 80,684
Barton	MBRS	Fe(II) transport system	20,565	78,864
Barton	RAC	Mycobacterium [Tuberculosis - Interacellulare - Phlei] with rabbits	2,500	2,500
Bednarz	DOE	Cooperative raptor research and management	15,000	181,314
Cates/Gosz	NSF	Plant secondary chemistry	226,159	604,989
Cates	Forest Service	Chemistry of loblolly pines	39,030	85,504
Cates	RAC	Response of western spruce budworm	1,765	1,765
Chiovetti	RAC	Quick freezing - freeze drying & infiltration in lowicryl resins	5,000	5,000
Dahm	NSF	Nitrogen cycle interactions in Mt. St. Helens	21,494	21,494
Duszynski/Yates	MBRS	Host genetic factors/host specif.	27,938	137,559
Kerkof	MBRS	Thyroid gland cells	24,354	91,585
Kogoma	MBRS	DNA replication in E. coli	10,220	38,220
Kogoma	NIH	DNA replication	190,071	693,244
Natvig	NSF	Phylogenetic analysis of Neurospora	40,213	120,213
Natvig	RAC	Phylogenetic analysis of Neurospora	2,500	2,500
Potter	NH Pk Serv.	Reassessment of vegetational recovery/ Bandelier Ntl. Monument	7,446	7,446
Riedesel	RAC	Overhydration with oral glycerol	1,300	1,300
Rice	NSF	Natural selection of habitat preference	57,494	114,988
Thornhill	NSF	Ecological determinants	22,945	73,766
Thornhill	NSF	Sexual selection	44,517	76,999
Trujillo	MBRS	Regulation of Carbohydrate Metabolism - Muscle	7,446	7,446
Trujillo	RAC	Expression of phophoenol-pyruvate Carb.	5,000	5,000
Vogel	NIH	Fibroblast proteoglycan connective tissue matrix	57,369	78,575
Vogel	NIH	Aging cell	50,122	199,840
Vogel	MBRS	Fibroblast proteoglycans	17,593	65,793
Woodward	NM G&F	Bufo boreas	5,185	5,185
Wiens	NSF	International convergences/Australia	10,000	10,000
Yates/Findley	NSF	Updating recent mammal collections	93,000	193,000
Yates/Sullivan	NSF	Histroical Zoogeography of S.W. montane mammals	5,840	5,840
Yates	NM G&F	Genetic & chromosomal variation	20,000	72,618
Yates	NSF	Bolivia genetics	19,386	61,724
			$1,072,797	$3,124,955

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II. Biologists in the News

In Biology we take great pride in the accomplishments of our people. In the pages that follow, examples of some of their accomplishments during FY 1984-85 are highlighted.

So many good things are happening in Biology that part of this fall semester will be needed to catch up on important accomplishments that occured last spring. For example, Dr. Tokio Kogoma was awarded $100,588 from the National Institute of General Medical Sciences (HEW) to study "DNA Replication in E. coli: Regulatory Mutants." The award period extends from March 1984 through February 1985. Since he came to our department from the University of Utah in 1974, Tok has been awarded $503,173 from federal agencies to pursue his research on DNA replication of E. coli.

9/84

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Dr. Janice Moore completed her Ph.D. in this Department in 1981 and she is now Assistant Professor of Zoology at Colorado State University. The research that she did for her degree at UNM was recently published (May 1984) as a feature article in Scientific American. Scientific American only publishes invited review papers, has a world-wide circulation of more than a million readers, and is published in seven languages. Many Ph.D.s never publish their dissertation research so it is significant that Janice's work was published in one of the most prestigous of America's journals. This reflects significantly upon the quality of the graduate program in this Department.

9/84

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In February 1984, Gary Miller received $3500 from the Boone and Crockett Conservation Committee to support his research on the ecology of the Desert Bighorn Sheep. In June 1984 he received another award of $2500 from the National Rifle Association to continue his research. The money from the NRA will be used for analysis of the chemical composition of food plants used by the Desert Bighorn Sheep in Western Arizona. Research of this nature should help Gary zero in on the reasons that Desert Bighorn Sheep prefer certain food plants while they will not eat others. The results of this project may require changing certain of our management practices to better care for the dwindling populations of Desert Bighorn Sheep. Gary is a Ph.D. candidate working with Dr. John Wiens.
9/84

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Dr. Roger Conant, our very distinguished Adjunct Professor, continues his busy schedule at the young age of 78! In early October he is to be the principal speaker of the 50th anniversary celebration of the Renaissance of the Toledo Zoo. As a member of the Zoo staff during the Great Depression he helped design the reptile house which is still one of the best buildings of its kind in the world. In November he will leave for a month to India and Sri Lanka where he hopes to photograph two species of vipers (members of a group of snakes on which he has been working for several years), and in 1985 he will travel to Japan and China where he will examine specimens of certain Asian herpetofauna. Dr. Conant has been a member of our Department since 1973 when he retired as Director of the Philadelphia Zoo after 38 years of service, six as its Director and 32 as Curator of Reptiles. In addition to adjunct status in our Department, Roger is a Visiting Scholar at the University of Arizona and has a new three year appointment as a Research Associate of the Department of Herpetology at the American Museum of Natural History in New York. The latter is an honorary post he has held since January 1948.
9/84

Dr. Loren Potter has had an excellent 1984. He is senior author (with J.R. Gosz and C.A. Carlson, Jr.) on his second book published in 1984 by the UNM Press, Water Resources in the Southern Rockies and High Plains, which synthesizes several years of Eisenhower Consortium-sponsored research dealing with the multiple aspects of water quality and quantity in the Rocky Mountain West. It provides a description of the multiple environmental problems created by the influx of recreation activities in the West, a discussion of the methods used to study environmental issues and some options available from which to select alternative actions. Loren also was awarded two grants from the National Park Service in 1984, one to do a vegetative analysis of burro exclosures in Bandelier National Monument and another to do a vegetational analysis of Cerro Grande Accession.

9/84

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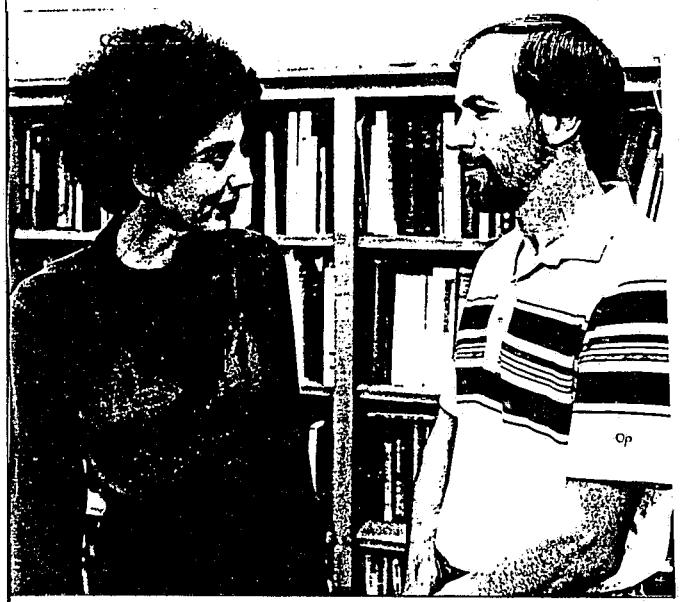
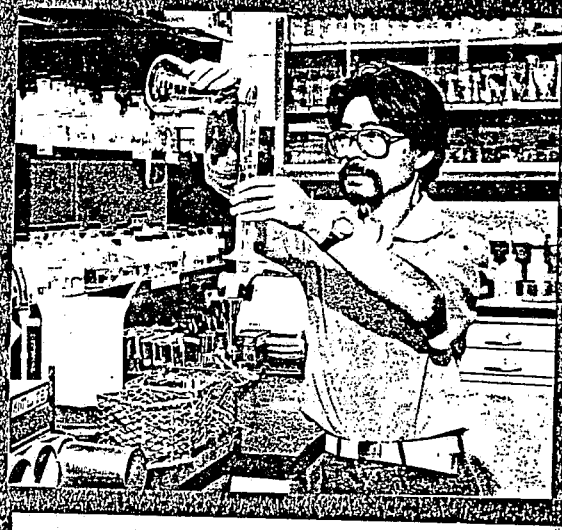


The only photo we have of Dennis Heinemann is that taken with Dean Charlene McDermott when he was awarded the 1982-83 UNM Graduate Fellowship. Dennis completed his Ph.D. this past summer (1984) and within three weeks had relocated to the University of California-Irvine to begin a very attractive three-year post doctoral fellowship with Dr. George L. Hunt. The thrust of his research activities will be to study the relationship between seabird distribution and abundance and the distribution of their prey in the Southern Ocean. This will entail two or three seasons at sea in the Scotia Sea on the British Antarctic Survey vessel John Brisco. Ahoy matie, not a bad job for a student from the middle of the desert! Another gold star for the quality of our graduate program.

9/84



His work on DNA replication has obviously attracted national attention because he was recently asked, and has agreed, to serve the National Institute's of Health (NIH) as a member of the Microbiology, Physiology and Genetics Review Panel. His appointment begins immediately (Fall 1984) and will last until 30 June 1987. The Review Panel convenes three times a year in Washington at which time the members are responsible for reviewing over 100 research proposals at each meeting! Tok also participates actively in UNM's Minority Biomedical Research Support program. MBRS (through the NIH) encourages the active participation of underrepresented minorities in biomedical research at both the undergraduate and graduate levels. His new MBRS grant extends from 1984-1987. In addition to all of this he is also an adjunct Associate Professor in the Cell Biology Department of UNM's Medical School where he participates actively in joint seminars and research projects.

9/84

677

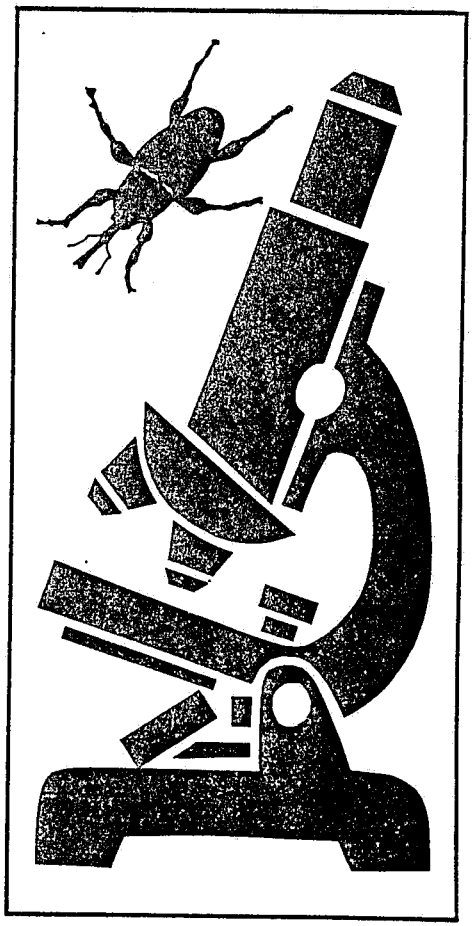
Dr. Rex Cates, one of the Biology Department's most widely recognized ecologists, was invited in April 1984 to Texas A & M University to participate in their "Distinguised Lecture Series." Sponsored by the Texas A & M Department of Entomology, Dr. Cates lectured on "The Evolution of Chemical Defenses Used by Plants to Discourage Herbivores." Rex is internationally known for his pioneering studies concerning the chemical basis for plant-herbivore interactions.
10/84

Distinguished Lecture Series

LECTURE: "ONE BEAST'S DRINK IS ANOTHER BEAST'S POISON: THE EVOLUTION OF PLANT DEFENSES."

Department of Entomology
TEXAS A&M UNIVERSITY

LECTURER: DR. REX CATES
ASSOCIATE PROFESSOR OF BIOLOGY
THE UNIVERSITY OF NEW MEXICO
ALBEQUERQUE
TUESDAY, APRIL 24, 1984
3:30 P.M. ROOM 101
S & C SCIENCES / ENTOMOLOGY CENTER



Dr. Cates is internationally reknown for his studies on herbivore-plant interaction. He has summarized his forecoming presentation as follows:

"Plants are now known to be biochemical monsters producing a multifaceted secondary metabolite system that functions, at least in part, as a defense against herbivores and pathogens. I will discuss the general types of defenses evolved by plants of varying growth form, the patterns in their production among sympatric species, and their effects on generalized or specialized herbivores (or adapted vs non-adapted herbivores). Throughout this discussion the trade-offs between abiotic factors, developmental limitations, and energy allocation considerations will be addressed. In addition, data will be presented suggesting that for at least some types of herbivores, plant chemistry may be most important as compared to plant architecture in the population dynamics of certain types of herbibores."

679

Professor John Wiens is spending FY 1984-85 in Australia on a Fullbright Award. Prior to leaving UNM last August, he received two additional awards to further support his research efforts "Down Under." In June 1984 he was notified by the NSF that he received $10,000 specifically to study "Bird Population and Community Patterns in Shrub Desert Habitats: Testing Hypotheses of Intercontinental Convergences (Long-Term Research Visit to Australia)" and in August he was awarded an additional $5,430 from the National Geographic Society to supplement his bird population studies in the Australian shrub deserts. Even when not in residence, Dr. Wiens can focus a lot of attention on UNM.

Dr. William Martin of our Department is curator of the Herbarium, Museum of Southwestern Biology. He is co-author (with C. R. Hutchins) of the first in a series of three books that should be of interest to naturalists nationwide. Spring Wildflowers of New Mexico (1984, UNM Press) is a guide to 366 species of spring-blooming wildflowers and the authors have provided illustrations, common and scientific names, descriptions, key characters, and information on habitat distribution and elevation range for each species. Of the more than 4000 wild plant species in New Mexico, over one-third can be designated as wildflowers. This volume, part of the New Mexico Natural History Series, is an information guide for anyone interested in learning about the flora of New Mexico. Dr. Martin has been with our faculty since 1958 and is currently Curator of the Herbarium, Museum of Southwestern Biology and Sponsor of the Castetter Ethnobotany Laboratory (UNM) and is co-author (with Hutchins) of the definitive work on New Mexico Plants, the Flora of New Mexico (1981, 2 Volumes, 2591 pages).

The University of New Mexico Press published a number of books by UNM Biologists in 1984. One entitled, New Mexico Grasses, was by Dr. Loren Potter and one of his former graduate students, Mrs. Carolyn Barnard who is senior author. This book provides the first comprehensive key, including descriptions, drawings and pertinent literature, to 286 of the common and important grasses found in New Mexico. When one recalls the economic importance of grasses (food, shelter, erosion control) and that more than one-half of New Mexico is grassland, the importance and utility of this book is obvious. Loren joined our faculty in 1958 as professor and chairman of the Department, a position he held until he resigned the chair in 1972. Virtually single-handed, he was responsible for designing, planning and securing federal funding to construct the "new" wing of our building (completed 1965) that contains the greenhouse. Mrs. Barnard completed her M.S. in Biology in 1983, has worked as a computer programmer in the Department of High Energy Physics at the University of Colorado, as a consultant for the U.S. Forest Service, and as a Lecturer in genetics in our Department. She is currently completing her teaching certificate in the College of Education.

10/84

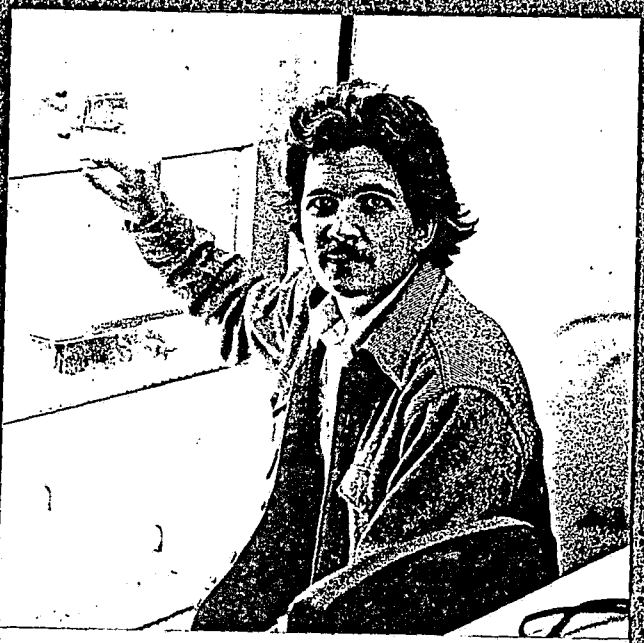
It's going to sound like you've heard this before, but here goes. On July 16, 1984 we received notice that Dr. Rex Cates was awarded $203,771 from the National Science Foundation to support his research project, "Role of Plant Secondary Chemistry in Ecosystem Processes." The award brings to $378,830 the amount received by Cates on this particular project and to $1.95 million the amount brought to UNM by Cates and coworkers since 1975. In addition to his research and teaching Rex has other responsibilities as a member of the Albuquerque South State Presidency in the Mormon Church. In this capacity he spends several nights each week and most Sundays in meetings, giving talks and holding interviews. He shares responsibility in administrating the church farm and orchard, finances, building maintenance, purchase of sites for new buildings, cultural and sports activities, and the like Where does he find the time to do it all?
10/84

Dr. Herbert Grover is a former Ph.D. graduate of this department and a former Research Associate of the Ecosystems Research Center of Cornell University. Herb recently accepted a two-year appointment in our department as Visiting Associate Professor. (He replaces Dr. Jim Gosz who is on leave of absence in Washington directing the Ecosystems Program at the National Science Foundation.) Last spring, Herb taught a class on the environmental effects of nuclear war and he continues to publish articles such as the one in the May 1984 issue of Environmentalist that illustrates the need for study of the possible ecological impacts of nuclear war. When Linus Pauling was on campus a few weeks ago, Herb moderated the panel discussion that addressed the topic of developing a Peace Studies Program at UNM. Herb's interest in the ecological consequences of nuclear war and in peace studies has resulted in his being sought for numerous speaking engagements throughout the nation. His efforts in these areas reflects very positively on UNM.
10/84

In September, Geoff Hill was honored by the Office of Graduate Studies and awarded one of only 10 UNM Presidential Scholarships. The award recognized Geoff's strong academic performance to date and carried with it a check for $1000 to support his doctoral research. Geoff is a Ph.D. candidate in his second year at UNM, his major professor is Dr. John Wiens, and his highly original dissertation research may provide important insights to help us understand the evolution of plumage dimorphism in birds. Good work Geoff!
11/84

Sarah George has gone on to bigger and better things. Having completed all requirements for the Ph.D. (she will graduate "officially" in May) she has moved to Los Angeles to accept the position as Assistant Curator of Birds and Mammals in the Department of Life Sciences, at the Los Angeles County Museum. The LACM is one of the top 10 collections in the United States with over 90,000 specimens and there seems to be no dispute that this was the best and most highly sought-after job in mammalogy in the the United States this year. It is of some significance that a UNM graduate was selected over a UC Berkeley graduate in the final round.

11/84



Dr. Fritz Taylor joined our faculty in the Fall of 1975 and since then has devoted his research energy to the study of insect life histories and population dynamics. He is described by his colleagues in other universities as "one of the brightest and most imaginative young scientists around" and his work "will in all probability establish a whole new set of research paradigms in studies on insect diapause and seasonality." During his 9+ years at UNM, Fritz has been supported by two NSF grants with another one now pending approval. In August 1984 he was an invited speaker at the symposium entitled, "Life-Cycle Strategies in Insects" at the XVII International Congress of Entomology, Hamburg, Germany where he presented his work on "Evolution of the timing of diapause induction." Fritz was honored by being asked to edit, along with Dr. Rick Karban from U.C. Davis, the symposium volume for the Congress which also will be titled "Life-Cycle Strategies in Insects." Nice job, Fritz.
1/85

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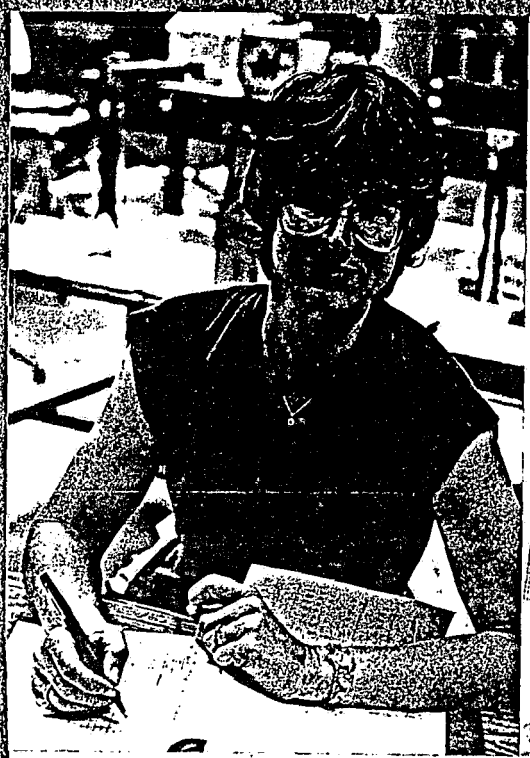
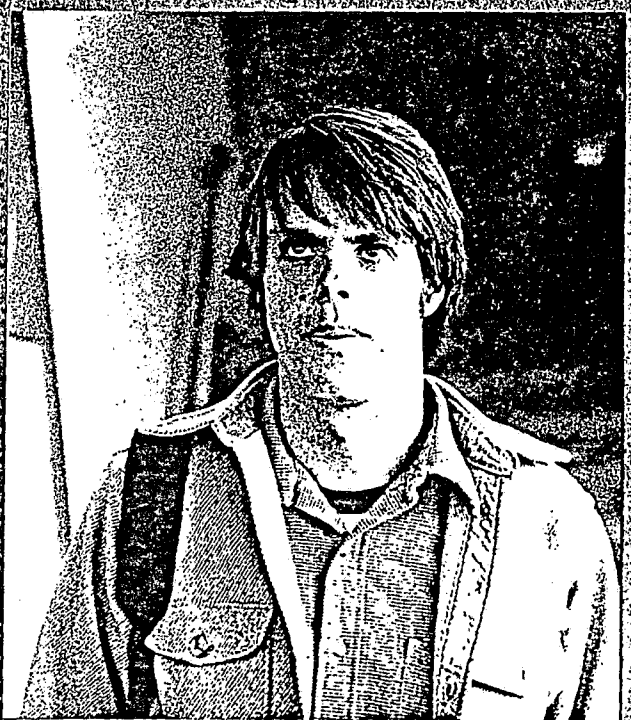


Drs. Kate Vogel and Terry Yates, both Associate Professors in our Department, were recently honored as recipients of Presidential Junior Professorships. Only 14 awards were made in the College of Arts and Sciences from which 231 Assistant and Associate Professors were eligible. In the judgement of Dean Chris Garcia and the Selection Committee, the awardees had "sustained, superior, and balanced performance in the three areas of teaching, research, and service." In July 1984, Dr. Yates was awarded $20,000 from the New Mexico Game and Fish Department to do a "Premanagement Laboartory Analysis of New Mexico Vertebrates" and in January 1985, Dr. Vogel received $50,122 as the fifth and final year of her NIH Career Development Award for her work on "Glycosaminoglycans of the Aging Cell." Both Vogel and Yates have excellent teaching evaluations over the years and both are hardworking departmental citizens. Recognition of these two was truly deserved.
2/85

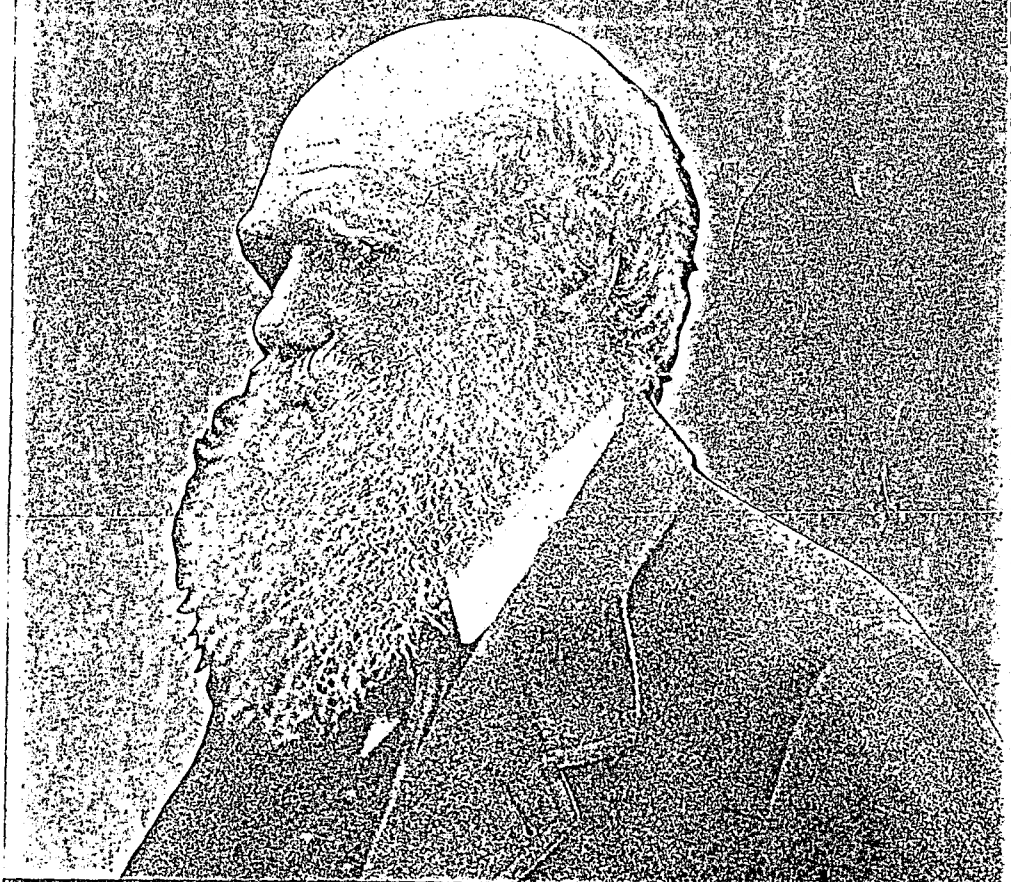


Why is Steve Zack looking up? He studies bird behavior, of course! Steve is one of Dave Ligon's doctoral students and the first of this year's crop of graduate students to leave the nest. He will finish all requirements for the Ph.D. by mid-February and shortly thereafter he will leave for Purdue University to begin a three-year post-doctoral fellowship with Dr. Kerry N. Rabenold. For the last six years, Dr. Rabenold has studied two species of wrens in Venezuela. Like the shrikes that Steve has studied for his dissertation research, the wrens are cooperative breeders. Rabenold and Zack plan to conduct experiments on these group-living birds to test aspects of their dispersal biology. The research is supported by a new grant from the National Science Foundation and will allow Steve to be in Venezuela for about eight months a year for the next three years. Nice work if you can get it.
2/85

Dr. Randy Thornhill gets lots of invitations to speak, but in January, 1985 he participated in a very special series of public lectures at Mount Allison University, New Brunswick, Canada. Mount Allison is an unusually well-endowed private university that attracts some of the very best students from throughout Canada. Heads of the Departments of Biology, Anthropology, Psychology and Sociology there arranged the public forum on "The Evolution of Behaviour" and Randy was one of only four very eminent biologists invited to speak. The others were John Maynard Smith (Sussex), Napoleon Chagnon (Northwestern), and John Krebs (Oxford). That's pretty impressive company for a young scholar from UNM and it attests to the world-class reputation that Randy has developed at the early age of 40! This was the second international Distinguished Biologist Lecture Series in which Randy has participated in the last few years.

2/85

THE EVOLUTION OF BEHAVIOUR



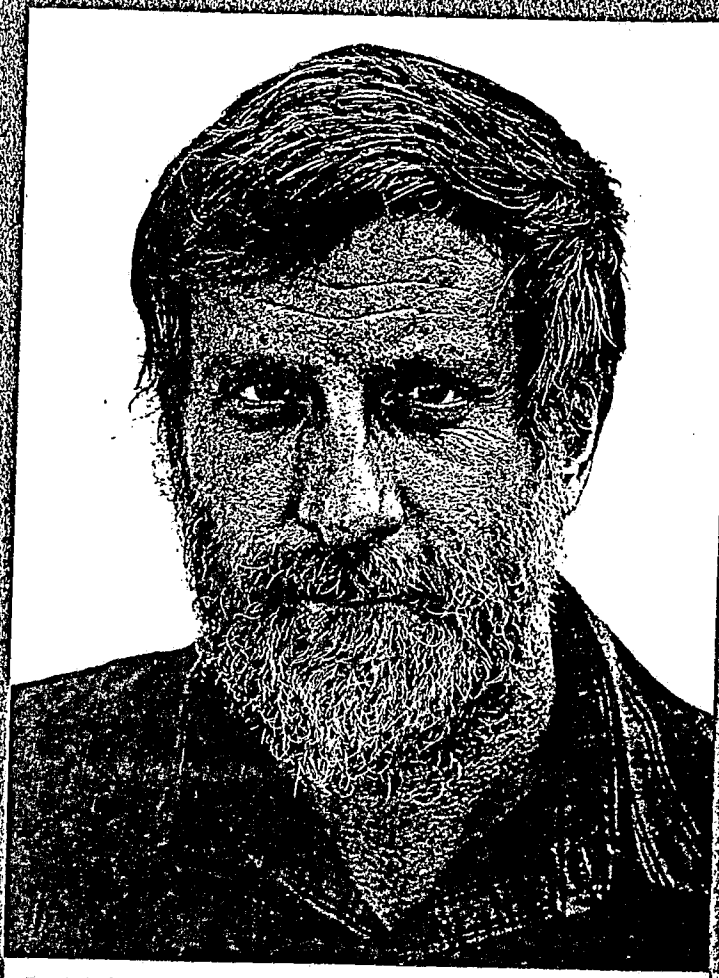
1

DR. RANDY THORNHILL
UNIVERSITY OF NEW MEXICO

Sexual Selection

January 23
7:30 pm

Crabtree Auditorium
Mount Allison University



In October, 1984, Dr. Joel Jones, then associate provost for academic affairs, announced that Dr. J. Scott Altenbach of our Department was one of two UNM faculty members to be honored as "Outstanding Undergraduate Teacher of the Year." The award carried with it an honorarium of $1,200 from the UNM Foundation and, later this semester, UNM will make a formal presentation of the award. Scott not only is a skilled and distinguished teacher, but he is also an internationally recognized expert on bats, especially on flight, locomotor morphology and electromyographic analysis of movement in bats. For example, he has been invited to present a major symposium address on bat flight at the Seventh International Bat Research Conference to be held 19-24 August, 1985 at the University of Aberbeen, Scotland. Scott's paper will be entitled, "The Flight Kinematics of the Chiropteran Shoulder."

Dr. Janice Moore finished her Ph.D. in our Biology Department in 1981 and she is now an Assistant Professor of Zoology at Colorado State University. On February 18, she received a letter from G. A. Keyworth III, Science Advisor to President Reagan, that she had been selected to receive a Presidential Young Investigator Award. The letter stated, "These awards embody the Nation's determination to assure the vitality of American research universities and to strengthen our ability to train the next generation of technical leaders. Your selection as one of 200 awardees from among 1,089 nominees in a very difficult competition attests to the selecting committee's high regard for your potential for research and teaching." This is one of the most prestigious awards for young scientists that this country offers and, when matched by the appropriate industrial contributions to CSU, can provide an award of $500,000 over the next five years. This certainly reflects in a very positive way on the quality of the Biology graduate program at UNM.
3/85

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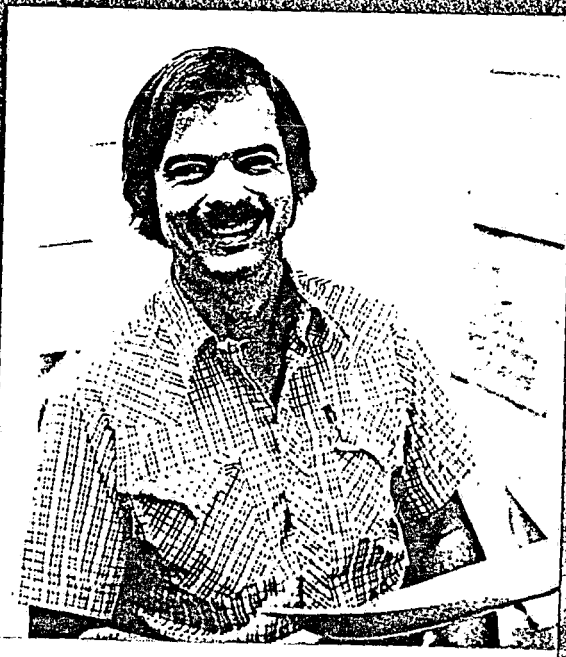
It seems like we keep repeating ourselves, but Dr. Rex Cates has secured another grant. This one is from the U.S. Department of Agriculture, Forest Service, Integrated Pest Management Program. The award will provide Rex's program with $39,030 from 1 October 1984 to 30 September 1985 to study, "Induced Chemistry of the Lobolly Pine with Regard to Phenology, Host Resistance and Suitability to the SPB-Fungal Complex." This award brings to $2 million the amount of federal research dollars brought to UNM by Dr. Cates since he joined our faculty in 1975. Rex certainly must be one of the most productive young Associate Professors on the UNM campus and his research program focuses much international attention in our direction.
3/85

We were informed on 8 January that Dr. Donald Natvig has been awarded $120,213 by the National Science Foundation to support his work on the "Phylogenetic Analysis of Neurospora Using Cloned Nuclear-DNA Hybridization Probes." The award became effective 1 February 1985 and will extend through 1987. Don, who joined our faculty in January 1983, is one of our newest Assistant Professors. He completed his Ph.D. at U.C. Berkeley in 1981 and then spent 1982 as a Lecturer and Research Associate in the Department of Botany at Berkeley. In our Department he has been involved in teaching the first semester of our large (500 students) majors course, Biology 121. He has also developed a new course, Techniques and Methods in Molecular Biology, which he is teaching this semester. Don is a welcome and valuable addition to our faculty and to UNM. We're glad to have him.
3/85

On July 9, 1984, the National Science Foundation notified UNM that it had granted $114,988 to Dr. Bill Rice to support his research project, "Natural Selection on Habitat Preference and the Evolution of Reproductive Isolation," in collaboration with Dr. George Salt, the University of California, Davis. The award is effective from August 1984 through January 1987. When we recruited Bill for our population genetics position in the spring, 1984, we knew he was talented, but few new faculty are good enough to win major NSF funding prior to beginning their new jobs. Bill received his Ph.D. in 1980 from Oregon State University and from 1981-4 he was a Visiting Assistant Professor at U.C. Davis. He officially joined our program in the fall, 1984. His duties involve teaching genetics, population genetics and, as our in-house computer whiz-kid, he helps many of our faculty, graduate and undergraduate students with their PC problems. We all feel he is a welcome and valuable addition to UNM.

3/85



On 14 November 1984, the National Science Foundation notified UNM that it was awarding $61,724 to Dr. Terry Yates for his research, "Survey of the Mammals of Bolivia - Genetics." The research project allows Terry and his students to spend about three months a year traveling throughout Bolivia to collect small mammals. These animals are used as a model to study genetic mechanisms that operate in mammals in their evolution through time and space. The data collected will be compared to similar data sets for mammals collected previously by UNM biologists from throughout North America, Mexico, and Japan. Dr. Yates is working in cooperation with Dr. Sydney Anderson of the Carnegie Museum who has a sister project (also funded by NSF) to work on Bolivian mammals. This past summer Terry and three UNM graduate students spent from 1 to 3 months each in Bolivia working on this project and they will do so again in the summers of 1985-1987. Dr. Yates joined our faculty in 1978 and this is the third of four current state and federal grants that support his research efforts at UNM and around the world.

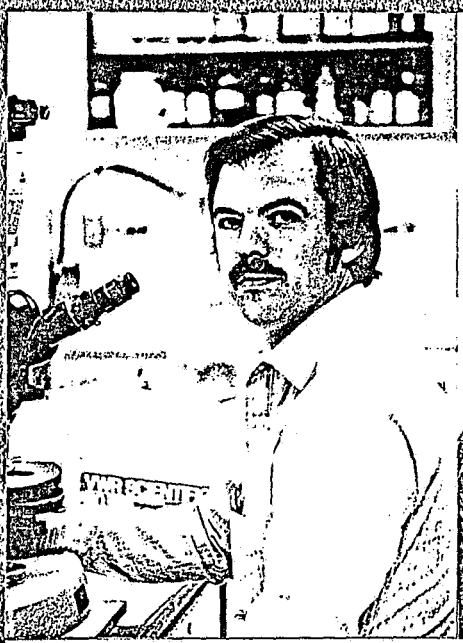
4/85

Dr. Cliff Dahm is the newest addition to our Department, having joined our program in October 1984. Even though he has been here only seven months, he has already made his presence known. Cliff is a Co-Principal Investigator on a $300,000 National Science Foundation Grant to study "Nitrogen cycle interactions with chemolithotrophic and heterotrophic processes in Mt. St. Helens' impacted lakes and hot water seeps." The award was made to the University of Washington although the four Principal Investigators are at three different schools (Washington, Alabama, UNM). Cliff's portion of the award has been subcontracted to UNM. He has interacted with colleagues and has been an invited speaker at Los Alamos National Laboratories and he has $500,000 in grant funds now pending with NSF, the U.S. Environmental Protection Agency, and the NM Water Resource Research Institute. Cliff came to UNM from Oregon State University where he had been a Research Associate from 1980-84. Needless to say, he is a great addition to our University.
4/85

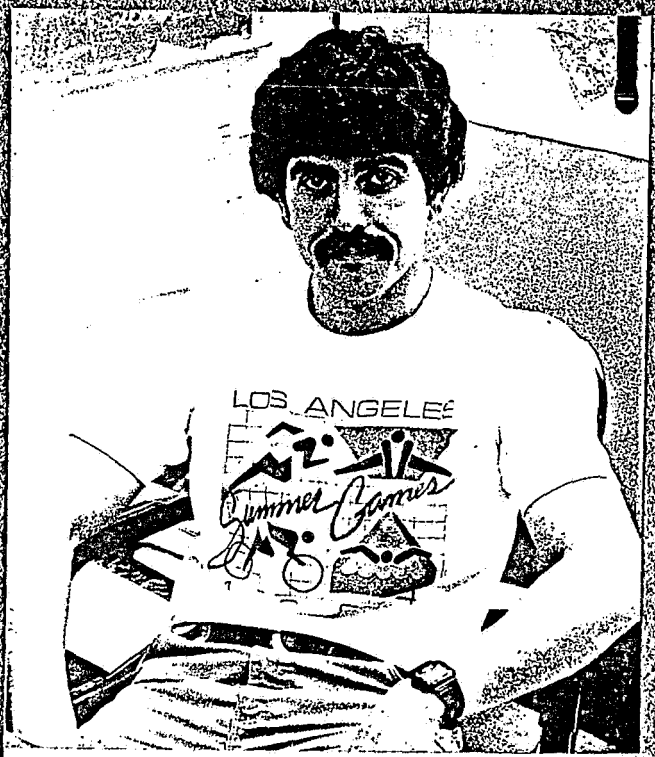
Dr. Kathryn Vogel is spending this semester doing research in the Department of Health and Human Services at the National Institutes of Health in Bethesda, Maryland. Because 1985 is the last year of Kate's prestigous five-year NIH Career Development Award, she wants to get as much exposure as possible in highly active and respected research labs before resuming her role as a regular faculty member of our Department in January 1986. Prior to leaving for Bethesda in February she received word from the U.S. Department of Health and Human Services--National Institute on Aging, that she had been awarded $78,525 to support the research going on in her UNM lab on "Fibroblast Proteoglycans and Connective Tissue Matrix." This is the first year of a three-year grant that will total over $200,000. Kate is another of the internationally-recognized faculty in Biology as attested to by her invitation to serve on the Cell Biology and Physiology Study Section of NIH and her selection as Co-Editor of the European Journal of Cell Biology. At UNM she has maintained an exemplary teaching and research record ever since she joined our Department in 1977.
4/85

699

Jim Bednarz began his Ph.D. program in Biology in the fall of 1980. Since then he has been working on a number of aspects of the ecology and cooperative breeding in the Harris' Hawk in New Mexico including (1) its breeding system and reproductive success; (2) its successive nesting and autumnal breeding; (3) the comparative ecology of breeding pairs and larger groups; and (4) comparative aspects of breeding Harris' and Swainson's hawks in New Mexico. Jim will complete all degree requirements this summer, but his work on New Mexico raptors will continue. We recently received word from the U.S. Department of Energy that Jim has been awarded $181,314 to continue his raptor research and management project in New Mexico. The grant will fund his work from 1 April 1985 through 1987 and is intended to focus on two primary objectives: (1) evaluate the potential impact of human activity on breeding raptors and (2) improve our understanding of the cooperative breeding system of the Harris' Hawk. 4/85



In early February we learned that Drs. Terry Yates and Jim. Findley were awarded an additional $93,000 from the National Science Foundation to continue their "Reorganization and Updating of the Recent Mammal Collection of the Museum of Southwestern Biology." This brings to $193,000 the amount that has been awarded to the Mammal Division of the MSB to help modernize and computerize its operation. The mammal collection at UNM is one of the most valuable museum resources in the southwestern United States. The collection has been used by a great many research workers through the years and has contributed significantly to the solution of problems in the fields of ecology, evolution, and morphology. The award period extends through July 31, 1987.
5/85



Dr. Manuel C. Molles is the second member of our Biology faculty in two years to receive a Fulbright Award to work abroad. Manuel will spend FY 1985-86 in Portugal conducting research on the structure of stream insect communities along environmental gradients. He will be based at the Estacão Aquícola located in the town of Vila do Conde in northern Portugal. The results of his research there will be compared with his studies in New Mexico along similar environmental gradients. This comparison will be used to quantitatively explore the extent to which the stream insect faunas of the two regions have converged in structure and function. The information he collects will also contribute to knowledge of the distributions of the aquatic stages of insects and, from a practical standpoint, these data can aid in the detection and assessment of water pollution. On the local scene, Manuel is continuing his work on the endangered Socorro Isopod as can be seen from the recent article in the Albuquerque Tribune. 5/85

All they ever think about is food and sex

Dave Nordstrand

Tribune columnist

The endangered Socorro Isopod is not a creature to cuddle. You cannot fill your camera lens with its noble frame, because it doesn't have a noble frame. It doesn't even make plaintive squeaking noises underwater.

Molles

The Socorro Isopod, in fact, lacks charm. It's a scavenger. It eats anything that's decaying. It will even eat another isopod. But it does give birth to live young, anywhere from 2 to 75 of them at a time.

Anyway, the Socorro Isopod lacks any apparent redeeming values, until you talk to Manuel Molles.

Half the world's Socorro Isopod population lives in 22 aquariums in his lab at the University of New Mexico. You can walk in and the rare creatures, about 3,000, don't care. (They're tiny, gray, shrimp-like and related to the sowbug.)

They just keep paddling erratically among the rising bubbles in hot pursuit of self-indulgent pleasure. That is to say food and sex.

"They're kind of cute," claimed Molles, professor of biology. "They've got character. They're direct in all their actions and highly goal-oriented. Food and sex. That's all they think about in their little isopod brains."

The other half of the world's known population lives — you guessed it — in Socorro. Home is a spring-fed rusty pipe, an old concrete bath tub in an abandoned bath house and a puddle or two on private property at a secret location.

Nowhere else in the extended universe is there another Socorro Isopod.

"All I have to do is feed them and I know I'm doing something useful," Molles said. "It's rare a person gets a chance to help save an entire species."

One-of-a-kind universal uniqueness isn't the only reason he's dedicated to studying and saving them. Granted, a 1.5 centimeter crustacean has less of a commanding presence than other endangered species — a Himalayan snow leopard, for example.

But the information being gathered from the isopod studies may help save the snow leopard and the blue whale and others on the endangered list.

Here's why. You can't bring a herd of white rhinos or mountain gorillas to UNM to investigate such fundamental things as genetic diversity, which affect all creatures. You *can* do that with isopods. They don't require truck loads of hay. You don't need a forklift to pick up after them.

And besides, said Molles, they've got as much right to life as the rest of us.

Recently scientists from MIT, Harvard and other schools visited UNM. They were much interested in the implications of the Socorro Isopod studies for other dwindling species.

"If no one else is grateful, at least the isopods probably are," Molles said.

They, by the way, are long-time New Mexico residents. Family roots may stretch back to the days when oceans covered the state. That was 60 million years ago.

APPENDICES

Vol. 1, No. 1, December 1984

GREETINGS TO BIOLOGY GRADUATE ALUMS

This is the first of what we hope will be a long series of Newsletters to the graduate alums of the Biology Department of The University of New Mexico. It is hoped we can establish a communication link (both ways) which will enrich the memories, the lives, and the educational and research activities of present and future biologists. Please send us any information about yourself, e.g., additional degrees since UNM, current employment and activities, etc. We would like to incorporate such information in future Newsletters. Use the form at the end of this Newsletter or send us a separate letter.

SHORT HISTORY OF THE BIOLOGY DEPARTMENT

Before 1913, biology was taught as a part of Science and Engineering. In FY 1913-14 a Department of Biology was listed in the catalog as part of the College of Letters and Science. Dr. Edward Castetter, for whom the present Biology Building is now named, came to UNM as Professor and Chairman of the Biology Department in 1928. This was the first year that graduate degrees were given. His long tenure as Chairman, and for many years also as Dean of the Graduate School, continued until he was appointed as Academic Vice-President in the spring of 1956. Dr. William Koster then served as Acting Chairman for 1956-57 and Dr. Howard Dittmer for 1957-58 until Dr. Loren Potter was appointed Chairman, a position he held from 1958 to 1972. Dr. Paul Silverman served as Chairman in 1972-73 and the next year was appointed Dean of the Graduate School and later as Vice-President for Research. Dr. Clifford Crawford was appointed as Acting Chairman for 1973-74 and as Chairman from 1974-78. Dr. James Findley then served as Chairman from 1978-82. Dr. Donald Duszynski was appointed as Chairman in 1982 and currently occupies that position.

The first Master of Science degree in the Biology Department was awarded in 1928. By 1951 ten M.S. degrees were awarded. In 1952 the first Ph.D. was given. The number of Ph.D.s awarded were one to three per year until 1969 when the increase in faculty numbers and adequate emphasis in particular areas of biology resulted in a definite increase in numbers of advanced degrees. The maximum combined number of advanced degrees was 29 awarded during the 1973-74 academic year. The history of M.S. and Ph.D. degrees awarded and the number of full-time equivalent professorial faculty members from 1928 through 1984 is shown in Fig. 1. In the 66 years from 1928 through 1982-83 a total of 482 graduate degrees, 386 M.S. and 96 Ph.D., have been awarded in Biology.

During the first five years in which graduate degrees were offered, the Department consisted of only two faculty members, then for 11 years only three. The professorial faculty members and their tenure since 1927 are given in Table 1. During and shortly after World War II the number doubled to six. It was during this time that Drs. William Koster, Howard Dittmer,

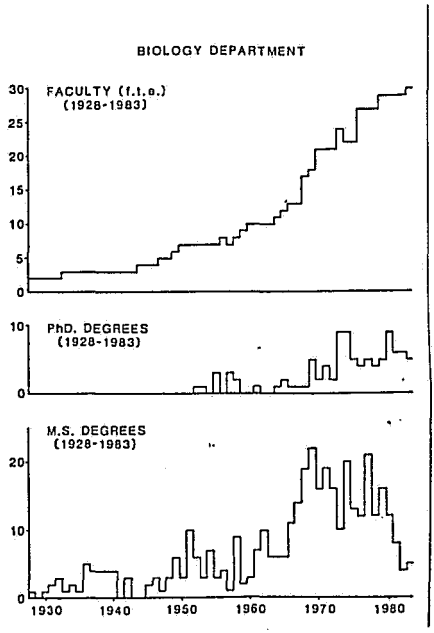


Fig. 1. History of M.S. and Ph.D. degrees awarded since 1927-28 and number of faculty members in the Biology Department.

and Martin Fleck, now all Professor Emeriti, joined the faculty. In 1951 when the faculty was at seven, the department moved into the Biology Building on Yale Blvd. There has been a steady growth in the number of faculty and areas of concentration of biology since 1956. Prior to expanding into a new addition, some faculty had offices in Marron Hall. When we moved into the new addition to Biology in 1967 the faculty numbered 15. The total facilities for Biology were designed to accommodate a department of 24 faculty members, their research and teaching programs, the necessary research and teaching assistants, technicians, and other staff members. This number of faculty was predicted in a 10-year period. In 1977 the faculty totalled 27 and three faculty members had already been moved into the "Biology Annex" - which had formerly been the School of Pharmacy. That entire building is still used today as office for four faculty members, one classroom, and several research laboratories for the extensive research programs of Drs. Cates, Dahm, Gosz, and Molles. With the addition of more faculty to a total of 30, all facilities have become very crowded and many adjustments of space have been made. Adjustments have been made principally in response to the greatly expanded research activities of the majority of faculty members. Once again, faculty members soon may be housed in Marron Hall, which is an apparent sign that another addition to the Biology Building must be in the offing.

HELP ! ! ! ADDRESSES NEEDED

Please assist us and your colleagues by providing to us any information about the following UNM M.S. and Ph.D. biology graduates for whom we have no correct addresses:

1928-29	MS	Longnecker, Karl P.
1931-32	MS	Hough, Vera A.
1932-33	MS	Henry, Harriet P.
	MS	Russell, Paul
1936-37	MS	Blakely, Garth
1937-38	MS	Johnson, Avis D.
	MS	Shortle, Alice
1938-39	MS	Harrall, Richard E.
	MS	Norris, Theodore
1939-40	MS	Bretney, Portz
	MS	Gordon, Mollie, E.
1940-41	MS	Haddad, E. S.
	MS	Snyder, Evert A.
1945-46	MS	Johns, Mary E.
1948-49	MS	Reinhart, Justin H.
	MS	Sumrell, Fred
1949-50	MS	Watkyns, Roger S.
	MS	Williams, Lelia A.
1951-52	MS	Armstrong, Elizabeth
	MS	Fritz, Lolita H.
	MS	Goeke, E. Louis
1952-53	MS	Clawson, David L.
1953-54	MS	Lindholm, Astrid
1954-55	MS	Torgerson, Don L.
1955-56	MS	Bolsterli, Joan E.
1956-57	MS	Parrack, Duane W.
1958-59	MS	Romero, Emma
1961-62	MS	Dohner, Virden A.
1962-63	MS	Sheppard, Frances V.
1963-64	MS	Federer, Susan M.
	MS	Mayes, Mary G.
1964-65	MS	Flory, Margaret
	MS	Stalheim, William
1965-66	MS	Costillo, Modesto Del
1967-68	MS	Githiaga, Hitchinson
	MS	Robertson, Charles
	MS	Safford, Catherine Harroun
	MS	Weeks, Kenneth
1968-69	MS	Dillon, Kathleen S.
	MS	Finlay, Jean S.
	MS	Mitchell, Kabby, Jr.
	MS	Naberezny, Thomas
	PhD	Pilcher, Ben
	MS	Posedly, Marlene
	MS	Rubinson, Sidney
	MS	Wenzel, Walter J.
1970-71	MS	Albrecht, Steve
	PhD	Brockett, Royce
	MS	Dow, Richard
	MS	Hewitt, Charles H., Jr.
	MS	Jeung, Alicia (Mrs. Miller)
	MS	Lee, James A., Jr.
	MS	Nelson, Robert L.
1971-72	MS	Li, Ching-Chang
1972-73	MS	Ruby, Jean
	MS	Standiford, Donald R.
1973-74	PhD	Aldridge, Robert
	MS	Beckwith, Raana Azad
	MS	Dorrington, Michael L.
	MS	Fifield, Lynn F.
1974-75	MS	Brenowitz, Gene
	MS	Jackson, Shelton, R.
	MS	Jones, Judy L.
	MS	Mark, Graham
	MS	Pache, Peter
	MS	Secatore, Robert J.
1976-77	MS	McKee, Paul A.
	MS	Pavlicek, Kenneth A.
	MS	Srikantaiah, Radha
1977-78	MS	Cole, Donna
	MS	Dudley, Robert E.
	PhD	Mortensen, Kim
1978-79	MS	Harris, Jerod
	MS	Wetmore, Donna
	MS	Young, Susan A.
1980-81	MS	Simpson, Gary
1981-82	MS	Schiefer, Gregory E.
1982-83	MS	Pair, Randall

THE BIOLOGICAL SOCIETY OF NEW MEXICO

The Biology Department and the University have in recent years suffered under the dual constraints of increasing needs and costs of operation while appropriations have not kept pace. Although the research activity in the Department has continued to expand and the scientific productivity is truly

outstanding, there are many areas of teaching and research for which there is a lack of fiscal resources, but which are needed to attain the type of excellence for which we are striving. For example, unless research funds are available, faculty wishing to present a scientific paper at a national meeting are limited to university support for one meeting per year at 60% of air fare and no per diem. Some alumni have asked how they may support the increased excellence in biological education and research. To make this possible, The Biological Society of New Mexico has been formed.

A. Organization:

The Biological Society of New Mexico has been established in 1984 as a tax-exempt organization under the New Mexico Nonprofit Corporation Act and the United States Internal Revenue Code. The object of the Society is to establish and maintain endowments, trusts, and foundations and to administer grants and other funds, all for the purposes of encouraging, fostering, and pursuing the greatest degree of excellence in education in the Department of Biology at The University of New Mexico. Such purposes shall be pursued directly through sponsorship of educational programs, through support of education-related research, and any other activities, academic processes or programs to benefit the primary goal of excellence of biological science at The University of New Mexico.

The Society is authorized to receive, disburse, and administer funds, grants, stipends, honoraria, property, or any other interests for educational purposes. Tax-exempt gifts may be given with designation to be used for specific purposes, e.g., student fellowships, research support, or whatever, as long as the purpose fits the objectives of pursuing excellence in biological education and research at UNM. The funds will be administered by the Board of Directors under the laws of New Mexico governing non-profit corporations and the federal laws governing tax-exempt educatonal organizations as approved by the U.S. Internal Revenue Service.

B. Activities will include:

1. Student Recruitment: The Society will arrange for and pay part of the cost, as funds are available, for selected, high caliber applicants for Teaching and Research Assistantships to visit the Department of Biology, UNM.

2. Graduate Student Support: To recognize high achievement and scholarship, certain scholarships and/or research fellowships will be funded by the Society. We have already started a program of recognition of teaching excellence among Teaching Assistants. Funds for a cash award are needed.

3. Continuing Education and Professional Stature: As funds are available and as approved by the Society, assistance will be given, where money is not otherwise available, for graduate students and faculty to attend professional seminars and symposia to deliver papers on their research activities.

4. Local Seminars and Symposia: Funds may be allocated to sponsor seminars and symposia in Albuquerque to attract national attention to UNM and the Biology Department.

5. Newsletter: The Society will publish a Newsletter which will be made available to all graduate students, past and present, and to selected persons of the public who may be interested in joining and supporting our Society.

6. Designated Uses: As contributions are received to improve the caliber of biological education and research some of these may be for designated teaching areas, research projects, awards, or specialized equipment. Funds will be so earmarked and used for that purpose.

C. Memberships

1. Any person contributing an annual fee, on a calendar year basis, of $15 or more is appointed a member of the Society and will receive the Newsletter. As with membership in all professional societies this is a tax deduction.

2. Any person or organization contributing a lump sum of one thousand dollars or more is appointed a Patron of the Society. Patrons are entitled to membership benefits for life and will receive a Certificate of Patronage. Anyone contributing ten-thousand dollars or more will be considered a "Patron Saint" of the Society.

3. All memberships and contributions are tax exempt.

4. Please mail memberships and contributions by check payable to "The Biological Society of New Mexico" to:

Secretary-Treasurer, Biological Society of New Mexico
Biology Department
The University of New Mexico
Albuquerque, New Mexico 87131

The next Newsletter will include a summary of the current faculty and their research activities plus a summary of the 1984 calendar year from the departmental chairman.

- -

Name _____ UNM Degree ___ Year ____ Other Degrees _____

Current mailing address _____

Current occupation _____

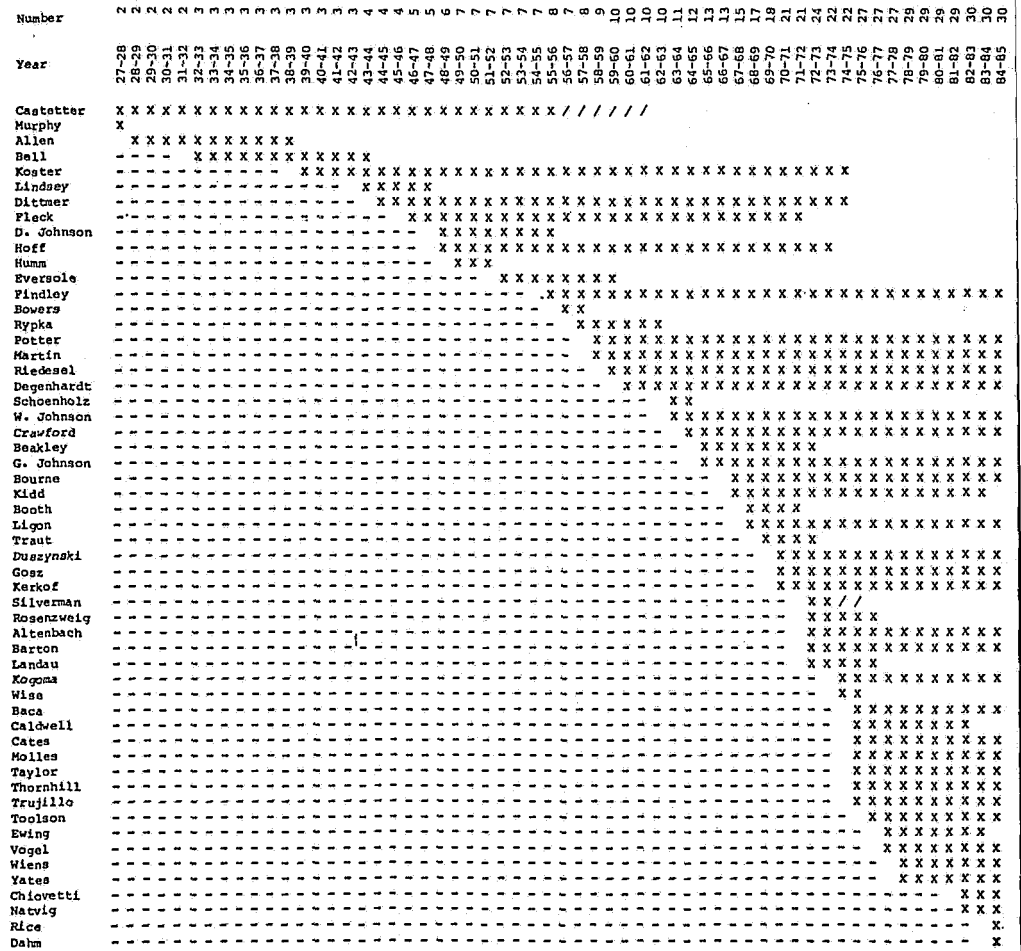
Other activities _____

_____

_____

Enclosed check $_____

Table 1. *Professorial faculty members in the Biology Department since FY 1927-28.*



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REPORT OF EXTERNAL COMMITTEE

TO REVIEW GRADUATE PROGRAM IN

DEPARTMENT OF BIOLOGY,

UNIVERSITY OF NEW MEXICO

July 1, 1985

Donald R. Strong
Department of Biology
Florida State University

Paul G. Risser
Illinois Natural History Survey

Marc Price
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University of New Mexico

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Massachusetts Institute of Technology

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Department of Genetics
University of Georgia

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I. SUMMARY

A. Strengths

The graduate program in the Biology Department at the University of new Mexico is strong by national and international standards. This strength is greatest in ecology and evolution, although a solid program in cellular and molecular biology is also developing. Productivity of faculty and graduate students is high. The graduate program, particularly in ecology and evolution, is attracting excellent students, and the department's record of job placement is strong. Physical facilities are good, and the systematic collections and natural environment are enviable assets. The departmental administration is dedicated, energetic, and effective.

B. Recommendations

The development of the department as a center for research and graduate training in ecology and evolution was a wise decision, and this emphasis should be continued.

The graduate curriculum should be broadened so that students in ecology and evolution learn more about molecular biology and its bearing on adaptation and evolution, and conversely, so that students in molecular and cellular biology learn more about the ecological context of molecular processes. Faculty members in molecular biology within the Biology Department should coordinate with their colleagues in the Medical School to develop a stronger graduate curriculum in molecular biology.

Additional courses in biometry should be introduced, and assistance in planning and analyzing data should be made available in the department. Microcomputers should be provided for computation, modeling, and word processing.

Additional faculty positions in the Biology Department are urgently needed; the department is about half the size it should be. Teaching loads of faculty and graduate assistants should be reduced. Salaries for faculty members and graduate students are low and should be increased significantly. Support for research and travel by graduate students pays high dividends in productivity and merits a dramatic increase in funding.

Open communication between the departmental administration and the faculty should be facilitated. The Review Committee recommends an incremental approach toward resolving the tensions between research and graduate programs in the areas of molecular biology and environmental biology within the department. This problem should not be allowed to divert the department or the higher administration from a recognition of more important issues outlined above, many of which require for their solution the provision of additional resources to the department.

The University of New Mexico can be proud of the Biology Department, which has brought it national and international recognition. The department has done much with modest resources, and the University can confidently expect a many-fold return in terms of productivity and reputation on an investment of additional resources.

II. INTRODUCTION

A. Background

The development of the Biology Department at the University of New Mexico over the past decade has been directed by Dean Wollman's memo of October, 1974, which may be summarized by the following quotation.

"...the Biology Department must focus its attention over the next few years on two objectives:

1. an undergraduate program at a minimum decency level, taking into account the several objectives that the undergraduate student body normally has;

2. a graduate program in the area of environmental biology at the highest level attainable, subject to meeting the first objective."

Ten years have passed since these objectives were stated. At the beginning of this academic year the department requested an external evaluation of its graduate program, and a committee was formed for this purpose by Dean McDermott. The members were chosen to represent a broad spectrum of research areas, as detailed below:

Jonathan King - molecular biology
Wyatt Anderson - genetics and evolution
Donald Strong - population and community ecology
Paul Risser - ecosystem ecology
Marc Price - internal evaluator; physics

B. Materials Available to the Committee

The department chairman organized a Graduate Self-Study Committee which undertook a thorough review of the entire graduate program in biology. The report of this committee, filling a large notebook, was mailed to each evaluator well ahead of the external review in Albuquerque.

The materials begin with careful statements of the department's objectives in research, education, and service. The role of each graduate faculty member in the graduate program is then discussed and his teaching contributions and research record are summarized. Complete curricula vitae for graduate faculty and graduate students are provided. Hiring procedures for faculty and the review process for membership on the Graduate Faculty are summarized. The graduate program is then discussed in detail, including requirements, financial support, and policies. The graduate student handbook is included. Finally, a statement of future plans is provided.

The review committee's task has been made considerably easier by the wealth of materials provided its members, and by the quality of the departmental self-study. The committee was able to begin its review with a detailed knowledge of the department.

C. Schedule During Review

The committee convened on Sunday evening, April 21, for an introductory meeting with the department chairman, Donald Duszynski. The next morning the committee met with Provost Hull, Associate Provosts Bliss and Scaletti, Dean Garcia, and Chairman Duszynski. Interviews with small groups of faculty, staff, and graduate students followed and occupied much of the committee's time. The committee also met separately with Dean Garcia. The committee began to outline its report on Tuesday and completed a detailed outline on Wednesday. The committee's findings and tentative statements of its recommendations were discussed during exit interviews with Graduate Dean McDermott, Provost Hull, Associate Provosts Bliss and Scaletti, Dean Garcia, and Chairman Duszynski.

D. Review Committee's Charge

The Review Committee has attempted to address the questions contained in the Academic Review Guidelines furnished by Dean McDermott. These questions are best summarized in the succinct charge to the committee by Provost Hull:

1. What are the strengths of the Biology Department?
2. What are its weaknesses?
3. Where is the Biology Department going?
4. What does it take to get there?

We have endeavored to organize our report around these questions.

During the on-site review in Albuquerque, committee members accepted responsibility for writing drafts of various sections of the report, and all members have participated in editing and revising the report into its final form.

E. MCMP and Environmental Biology

The issue of the department's emphasis on ecology and evolutionary biology and the effect of this emphasis on the development of a program in molecular, cellular, and physiological biology is a thorny one which was repeatedly brought to the review committee's attention. In the end,

we came to feel that this issue was given too much attention. We do not want it to shift the focus of our report from more important matters. Accordingly, we have chosen to discuss this matter in a separate section at the end of our report.

III. STRENGTHS

A. Research

1. Graduate education and research in biology at the University of New Mexico are strong by both national and international standards. The major focus of strength is in ecology and evolution. Several faculty in this area have achieved first rank in the research community. This excellence in ecology and evolution has been sustained over a sufficiently long period to gain a vitality and maturity that transcends any single faculty member.

2. A secondary focus of strength in biology is in molecular and cell biology, an area where a subset of mainly younger faculty have developed solid reputations and strong research programs within the last decade. Research excellence in this area enhances the intellectual climate of the department and presents opportunities for department-wide cooperation in new hybrid disciplines such as molecular evolution, metabolism of ecologically significant biomolecules, and microbial ecology.

3. An impressive atmosphere of shared ideas, critical appraisal, and collaboration has developed among students and faculty in ecology and evolution, leading to cooperation in research projects and applications for funds, sharing of equipment and space, and joint publications. We were struck by the optimistic and energetic attitudes of the graduate students in the face of heavy teaching loads and low pay. With few exceptions, the graduate students feel they are favorably served by the attitudes of faculty toward them and by the core graduate curriculum in ecology and evolution. The strength of the core curriculum stems largely from the fact that it is taught by faculty members in the forefront of research.

4. A high proportion of faculty and graduate students in the Biology Department is as productive in research, in obtaining extramural funding for research programs, and in graduate teaching as faculty at any institution.

The GRAC and SRAC grants to graduate students are inexpensive and powerful means to encourage productivity in research.

5. The faculty of the Biology Department are very well supported by state and federal research organizations. The annual amount of grants from the National Science Foundation is quite high for members of the ecology and evolution group. Much of their funding is concentrated in the panel for ecosystems studies, which addresses itself to large scale research projects requiring substantial sums of money. Several of the faculty in ecology and evolution have

support from other panels at the National Science Foundation: Population Biology; General Ecology; and Psychobiology. Although funding for these areas is typically smaller then for ecosystem ecology, the competition involved in winning these awards is no less fierce. It is noteworthy that more than one faculty member in the department maintains several simultaneous research grants.

An indicator of the diversity of research in the department is the substantial support from agencies other than the National Science Foundation, such as the National Institutes of Health, the United States Department of Agriculture, and the Environmental Protection Agency.

Graduate student funding from extramural agencies has also begun to appear, but it is not nearly as well developed as it might be.

6. The quality and number of scientists visiting the Biology Department at the University of New Mexico to deliver talks and to confer with faculty and students are outstanding. The seminar program is an important indication of excellence in the department. The department has dedicated a significant fraction of its resources to this function. The investment has paid off handsomely, and as a result there is little feeling of intellectual isolation, despite a geographical location midway between the corridors of research institutions on the west and east coasts.

B. Graduate Program

1. The graduate program is strong by any measure. The students are intelligent, well prepared for graduate work, and ambitious. The graduate program is large enough to acommodate a diversity of students and has strong master's and doctoral programs. We found student enthusiasm to be very high. Graduate students take the program seriously and have a detailed knowledge of the workings of graduate affairs in the department.

2. We found the graduate students committed to their teaching duties, which are predominantly at the undergraduate level. The teaching assistantship is the major form of graduate student support in biology, and the university and the state are receiving a great bonus in return for a modest investment. Most students, especially beginning ones, have heavy teaching loads with low pay, but the students voiced few complaints about these matters. Teaching appears to be coordinated well from the graduate students' viewpoint.

3. As we have implied above, the morale of graduate students is quite high, both in ecology and evolution and in cell and molecular biology. Students perceive that they are getting quality educations that will afford them good job opportunities after graduate school. They are excited and knowledgeable about ideas and progress in their respective disciplines and are pleased about having made the decision to study at the University of New Mexico.

The lifeline of graduate study is vigorous and frequent intellectual exchange between faculty and students. At New Mexico, graduate students generally have close intellectual ties with faculty. Students and faculty speak about substantive issues as a daily matter of course, in informal and formal courses and seminars.

4. M.S. and Ph.D. graduates of the University of New Mexico have found employment in academic, governmental, and private areas at an impressive rate in recent years. Graduates of the department in ecology and evolution have competed for and won very desirable positions at other institutions in North America and abroad, including Colorado State University, Bowling Green University, Florida State University, and the University of Sydney, Australia.

C. Curriculum for Graduate Students

1. Especially in the areas of ecology and evolution, graduate teaching is of high quality. The core curriculum in ecology and evolution is intense and difficult. It consumes much of the students' time and efforts during their first three semesters. Tests are demanding, and students expend a great deal of thought and effort in preparation for them.

2. Younger and older faculty alike show genuine concern for their graduate teaching areas and appreciate the resources of time, materials, and supplies that are required to teach graduate students effectively. In ecology and evolution, faculty sometimes offer rather specialized and high level courses that may not draw sufficient students.

D. Resources

1. The wisdom of the long-standing policy at UNM to emphasize ecology and evolution in research and graduate education takes advantage of a special resource that has cost nothing but continues to pay handsome rewards. The geography and environs of Albuquerque and the University provide a very special context to researchers in environmental and organismal biology in terms of spectacular and interesting habitats, plants, and animals. This resource base is not available to many longer-established departments of biology on the east and west coasts.

2. Far less obvious, but of great value to all sectors of the department, is the fine building housing the Biology Department. It is modern, well-designed, spacious for most of the department's functions, and adaptable to changing situations. The addition made to the building in the late 1960's is the key to the physical plant. Particularly impressive are the quarters dedicated to the systematic collections on the bottom floor. These are spacious, well compartmentalized, and dedicated to high-efficiency use of the collections.

3. Together, the collections of animals and higher plants are unusually large and well-curated at the University of New Mexico. Reviews of the mammal collection have recently rated it very highly

among all of those in North America. The bird collections are smaller and directed more toward regional and specific university needs, but they are no less excellent for their size. The plant collection is somewhat smaller and useful more in teaching than in basic research, but it is indispensible to New Mexico nonetheless. The university and department should continue to recognize the distinct value of the collections and the need to dedicate at least modest funds toward their support.

4. The Department has recently dedicated a faculty position and a fair amount of space to an electron microscope facility, which, as a research tool, is primarily of use to the molecular and cell biologists. This facility required much planning and administrative maneuvering on the part of the Department Chairman and demonstrates his dedication to progress for all sectors of biological science in the department.

E. Administration

The department's present strength owes much to a succession of intensely dedicated chairmen, who have given much from their individual careers to the betterment of biology at the University of New Mexico. The benefits are sometimes quite tangible, like the addition to the building which was made in the late 1960's as a result of the creative and dogged pursuit of extramural building funds by Chairman Potter. Successive chairmen have encouraged and shaped the growth in size and excellence of the department in terms of faculty, new disciplines, and distinguished professorships. The current chairman is highly dedicated to the growth of excellence in research, teaching, and service. He has energetically advertised the department's strengths to the university and to the broader community of New Mexico. He has found and encouraged support from the private sector for teaching and research within the department.

IV. AREAS IN NEED OF IMPROVEMENT

A. Curriculum

1. The curriculum does not pay sufficient attention to modern molecular approaches to biology. As a consequence, students, particularly those in ecology and evolution, do not have the background to assimilate new findings which include molecular biology.

2. The molecular and cellular biology component of the department is conversely lacking in awareness that organisms have in fact evolved from earlier ones, and that they all function in complex ecosystems, and students in this area do not take advantage of the strengths of the department in ecology and evolution.

3. The department lacks a coherent, well-designed graduate curriculum in molecular and cellular biology. Such a curriculum

provides the backbone of intellectual vigor for the training program and a structure for faculty teaching assignments.

4. Coordination with the Medical School in the area of graduate courses and curriculum is inadequate or nonexistent. This interface may require some administrative initiatives, for example a joint curriculum committee. This lack of communication should be remedied immediately. Graduate students in biology should be fully informed of courses offered in the medical school, and graduate students in the Medical School should be made aware of course offerings in the Biology Department.

The movement of the medical faculty into teaching undergraduate biochemistry raises questions about the general organization of the undergraduate curriculum and the likelihood of a rational curriculum development, but our committee did not review this area.

B. Quantitative Methods

Resources for use of quantitative methods in biostatistics, data collection, and analysis are inadequate.

1. Many students have to shop around to find appropriate expertise in statistics and data analysis.

2. Inadequate access to personal computers is a serious bottleneck.

3. Although a new faculty member possesses expertise in this area, he is rapidly being overburdened with informal consultation.

C. Faculty

1. The ratio of total biology faculty to biology majors is too small. Additional faculty appointments in biology would be valuable. Plant science, biometrics, and molecular evolution are examples of areas which deserve strengthening.

2. Though many groups are under-represented on the faculty, the very small number of women faculty is particularly disturbing, given the large pool of female Ph.D's. in biology.

3. Many of the faculty showed a marked lack of understanding and appreciation of the work of their colleagues. Such a lack of appreciation makes cooperation very difficult and harms teaching and other aspects of the departmental environment.

4. There has been some loss of sensitivity in the manner in which the chairman has dealt with faculty problems. Some faculty feel that access to the chariman, for instance on details of faculty evaluation, is too restricted.

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D. Graduate Students

1. Support from the university for graduate research funds and travel to meetings, particularly given the productivity of the students, is inadequate and underutilizes this talented and energetic group.

2. The teaching loads of graduate students are too high in comparison with comparable institutions.

3. Several students reported problems in getting access to their faculty advisors for guidance and for evaluation of research progress.

4. Access to journals and books is inadequate for a modern research department. This deficiency could be partially corrected by ready access to computer literature searches, but this recourse is not available in the department.

V. RECOMMENDATIONS

A. Breadth of Graduate Training

1. Well-trained graduate students in biology require an understanding of a range of biological topics. This breadth of training is important for developing innovative approaches to answering biological questions and for understanding the broad scientific implications of ideas and discoveries within the various subdisciplines of biology. Particularly in this department, graduate students have the opportunity, even the mandate, to become familiar with topics ranging from molecular biology to environmental biology. Thus, the committee recommends that the departmental curriculum be developed so as to ensure that those students whose primary interest is in environmental biology also have formal exposure to molecular biology. This exposure should emphasize the importance of molecular biology in understanding fundamental issues in biology and the ways that molecular biological approaches can contribute to understanding ecological problems. In a reciprocal manner, the departmental curriculum should ensure that students in molecular biology be formally exposed to environmental biology, emphasizing the need to understand basic ecological phenomena and the environmental context of molecular and cellular processes.

2. There are a number of exciting possibilities for satisfying this recommendation. For example, a molecular biology course could be required of all environmental biology students and, similarly, all programs for molecular biology students could require a portion of the environmental biology core or a specific environmental biology course. Or, one or a few of the faculty could develop a jointly-taught course in an area such

as molecular evolution which would be a portion of the core curriculum for all students in the department.

3. The subject matter of the core represents the breadth of ecology and evolution. In its first year, when the faculty for whom it was designed actually taught, the core inspired a deep appreciation for the subject material. We heard frequent, if not unanimous, concern from the graduate students that substitute faculty in the core, in semesters when regular core faculty are away, should be carefully chosen for a high degree of mastery of the subject matter. Neither this set of subjects nor this group of students is well served by a teacher who finds the material near the upper limit of his or her knowledge and experience.

B. Graduate Curriculum in Molecular Biology

1. Currently, there is no unified course structure for graduate students in the general area of cellular and molecular biology. The committee recommends that such a curriculum be developed to ensure that all graduate students in this area have a sufficient background in the full range of important topics of molecular and cellular biology. This unified curriculum could be built around a set of core courses, or it could include a specified series of interrelated courses taken by all molecular biology students. Developing such a curriculum will allow the faculty in molecular biology to think carefully about the subject matter which rightfully belongs in the training of all graduates. In so doing, it may be possible to develop an even more efficient course schedule for this portion of the department.

2. It is clear that an adequate molecular biology program cannot be developed fully by involving only the faculty of the department. Rather, the curriculum must involve the Medical School in parts or all of the curriculum. Therefore, the department must take the lead in coordinating curriculum development, involving, as necessary and desirable, the graduate degree program at the Medical School.

C. Coordination of Graduate Education in the Department and Medical School

As indicated in the previous recommendation, a strong program in molecular biology demands a cooperative effort between the Department and the Medical School. This cooperative effort should be facilitated by the university administration. At a minimum, the administration should explicitly encourage this coordination and should eliminate or minimize any administrative obstacles. To be more helpful, the administration should offer tangible incentives, such as graduate assistantships or program support.

B. Support in Quantitative Biology Skills and Hardware

1. Virtually all areas of biology now demand significant skills in techniques of data analysis. The committee recognized a serious deficiency in the resources directed toward this general effort in the department. Though students now take statistical and mathematical analysis courses in the Mathematics Department and Psychology Department, as well as the Medical School, and though some statistical assistance is available in the Mathematics Department, it is clear that students and faculty now overburden one new faculty member who is particularly strong in these quantitative skills. Thus, the need for statistical consulting is currently not being adequately met. This insufficiency retards the development of the best science and also slows the development of a young faculty member.

2. The need for more statistical assistance could be addressed in several ways. A statistical consultant could be made available to the department, either full time or part time. A new faculty member could be employed with the clear stipulation that a significant part of his or her time would be devoted to assisting faculty and graduate students.

3. On a related topic, the committee noted a conspicuous absence of microcomputers throughout the department. Indeed, the department appears to be at least three years behind the times in incorporating microcomputers as a standard tool in scientific research. The ready availability of microcomputers does not solve the need for additional statistical assistance, but this hardware would facilitate data collection and analysis. In simple fact, in most other biology departments virtually all faculty and many graduate students have microcomputers on their desks, and these machines are routinely used for data acquisition, storage, and analysis; for word processing; and for developing classroom materials and exercises. The university would do well to provide funds for the purchase of a number of microcomputers in the department, thereby advancing the sophistication of the department with a relatively modest expenditure.

4. The university must also recognize that the role of a central mainframe computer is rapidly changing. Mainframe computers in biology are used for manipulating large data matrices and for simulations with complex models. However, much of the computational power required in biology can be more efficiently accomplished with a microcomputer. As the Biology Department gains competence and experience in microcomputers, lesser demands will be made on the campus mainframe. It is imperative that the university recognize this inevitable trend and ensure that there are no bureaucratic or policy hindrances to the purchase and use of microcomputers.

E. Faculty and Graduate Student Salaries

Salaries for both faculty and graduate students are low within the region and significantly below the competition in world-class research universities. Solving this problem is clearly dependent upon the availability of resources, which are limited in New Mexico at the moment. However, the administration must clearly recognize that the present salaries are not an incentive for attracting high-quality faculty and students. Therefore, to build and maintain an excellent program, more adequate salaries will be necessary. Furthermore, retention of top-quality faculty will be difficult with the existing salary structure. In fact, this latter issue is playing a significant, if not overwhelming, role in a decision being made by a strong faculty member in the department at this very moment.

F. Number of Biology Faculty

1. The number of faculty in the Biology Department is dramatically lower than would be expected in a university the size of the University of New Mexico. Although comparisons depend upon the parameters invoked, the department is perhaps half the expected size. The consequence is that the faculty have heavy teaching loads. These teaching loads in turn have the consequences that less time is available for students and less time is available for reflective and thoughtful scholarly activity. It also means that the university is not in a strong competitive position for attracting and retaining faculty and graduate students.

2. The committee did not fully analyze the specific needs for additional faculty. However, there are several obvious topical areas which now have an inadequate number of faculty: biometry; molecular evolution; and plant science in general, and organismic plant physiology specifically.

G. General Direction of the Department

The committee endorses the environmental biology emphasis of the department as initially indicated by the 1974 Wollman memo. In fact, this strategy has produced a strong department of national and international stature. However, this emphasis should not preclude the need to develop a broad Department of Biology. Thus, the area of molecular biology should not be ignored, and elsewhere in this report are discussions of ways in which molecular biology can be strengthened by organizing internal resources and attracting external funds. The department should continue to build, however, on the existing strength in environmental biology.

H. Departmental Administration

1. The committee was impressed with the remarkable dedication of the current departmental chairman, as well as the two previous ones. These individuals clearly have committed enormous

amounts of energy toward developing and maintaining a high-quality department. The present chairman is vigorous, dedicated, and imaginative in his efforts to further an excellent organization, and he is to be commended for his efforts.

2. All organizations the size of this department require constant attention to communication. Although attention is obviously being paid to communication, more effort needs to be expended by both the departmental administration and the faculty and students. Proper communication is a two-way proposition. The chairman should seek to provide more information and to be certain that the faculty participate in as many decisions as possible. Likewise, the faculty must do its fair share in enhancing communication and in participating fairly and thoughtfully in decision-making processes.

3. Communication with the graduate students might be enhanced by either committing a single staff member part time to this responsibility or by establishing a Graduate Program Committee which might develop policy decisions and include responsibility for guiding graduate student programs. This committee would free the administrative assistant to help the chair with such functions as publicizing the department's program and accomplishments.

4. Faculty evaluation is always a difficult but important task of a department. This process will operate most smoothly if the criteria and procedural steps are thoroughly understood by all the participants. In this instance, the department may wish to formalize an advisory group to the chairman.

I. Women and Minorities

It is important that the departmental faculty include a rich cultural composition and that role models be available for students. Thus, the department should be especially sensitive to the need to recruit female and minority colleagues.

J. Placement of Graduate Students

The Department has been comparatively quite successful in placing its graduates. This success is an indication of the department's strength and the dedication of its faculty. However, there is room for improvement. The faculty must be aware that successful placement of graduates is an integral part of the educational process and a function of strong departments. Indeed, faculty evaluations should include some measure of the success enjoyed by graduate students of each faculty member.

K. Travel and Research Support for Graduate Students

Support for travel and for graduate student research in the department is very modest by comparison with most research universities. This is not to ignore the efforts being made by the

university and the department toward meeting these needs. However, it is obvious to the committee that additional funds made available to students for these purposes would reap large rewards in producing strong research projects, better trained graduate students, and advantageous recognition across the country. We recommend an immediate increase in funding of this sort.

L. Contact Hours

Among the most important tasks of the departmental and university administrations are the encouragement and nurturing of faculty productivity. Lowered contact hours for young faculty and for productive older faculty are essential. Along these lines, if reporting and accounting for "FTE" and contact hours were shifted to a "by department" basis from the current "by individual" (faculty or teaching assistant) basis, a tremendous increase in incentive for research and graduate teaching could be placed in the hands of the departmental administration. It is our opinion that the extent of "per individual" attention directed at teaching and contact hours at the University of New Mexico is distinctly greater than at most large universities today.

VI. THE DIVISION BETWEEN CELLULAR BIOLOGY AND ENVIRONMENTAL BIOLOGY IN THE DEPARTMENT

A. Issue

1. Beginning in 1974 with a memorandum by the Dean of Arts and Sciences, the department has emphasized environmental biology. This directive did not preclude a broadly based program in biology, but it recognized that with limited resources, departments could achieve excellence only in selected disciplines. As a consequence of this decision, the department has indeed developed a national and international reputation in environmental biology.

2. The department also includes several individuals with strong research programs in molecular biology. Moreover, there is a predictable desire to increase the strength of the molecular biology program. Since there are few additional resources for the department, the inability to emphasize molecular biology has also led to a frustration which has existed for the past decade.

B. Situation

Although described too briefly, the present situation can be characterized by the following statements.

1. The current divisiveness is discrediting the department in the opinion of the administration, is disruptive to the faculty, and is a disservice to students in the department.

726 2. The environmental biologists have failed to recognize the importance of molecular biological approaches as contributions to understanding ecological and environmental issues. The molecular biologists have failed to recognize the need to understand molecular and cellular issues in an ecological context.

3. Strength in environmental biology should not be dissipated in an effort to strengthen other areas in biology.

4. With increasing programs in the Medical School in microbiology, molecular biology, and biochemistry, there is no likelihood that the university will build two strong programs in molecular biology.

5. Although one or two new positions might be obtainable, even this modest increase in staff members is not assured.

6. Though there may be small disparities in teaching loads of individuals in the department, more planning and imaginative scheduling can reduce most of these differences.

7. Although there are some strong individual programs in molecular biology, there are also several faculty members whose overall performance is not satisfactory in the context of a major state university.

8. Because resources are limited, any realistic plan to increase the molecular biology program must incorporate: (a) collaborating with the health center; (b) reorganizing the program within the Biology Department; (c) encouraging greater participation of the graduate student population in molecular biology; and (d) obtaining training grants, research grants, and other outside support.

C. Remedy

The department must recognize that over a long term it has allowed itself to arrive at a contentious issue which jeopardizes future growth and professional stature. The issues are now primarily personal and not scientific. Only the department can resolve the issue, and given the duration and personal nature of the current status, the problem will not be immediately and dramatically solved. Rather, the faculty must realize the severity of the issue, and seek to solve the problem incrementally. This incremental solution should involve the following events.

1. The graduate curricula in molecular biology and environmental biology need attention, as discussed elsewhere. In addressing these curricula, the department should decide upon a course structure which ensures that environmental biology students and molecular biology students are adequately exposed to the other general discipline. This could be accomplished by any number

of approaches, including a team-taught course, segments in core courses, and seminars.

2. The faculty in molecular biology need to design the best possible curriculum in molecular biology. This may mean changes in course structure, changes in research emphasis, and collaboration with the Medical School.

3. Developing a semi-autonomous program in MCMP within the Department of Biology is not a desirable way to build strength in the molecular area. Such a program would only widen the gulf between the molecular and environmental areas. The faculty must work together to build a broad department, recognizing that ecology and evolution will be the primary focus.

4. The faculty in molecular biology need to aggressively pursue outside program funding sources, e.g. training grants. Perhaps a collaborative effort with the Medical School could be undertaken.

5. Both the molecular biologists and the environmental biologists need to explicitly recognize the accomplishments of everyone on the faculty. This might be helped by casual interactions, and perhaps the department should institute a faculty-only seminar during the next year where each faculty member discusses his or her research. The same approach could be taken for curriculum reform.

6. The departmental administrator needs to bend over backwards to be sure communication is clear and complete.

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Fort Hays State University

600 Park Street *Hays, Kansas 67601-4099*

Fort Hays State Museums
Museum of the High Plains (913) 628-5664
Sternberg Memorial Museum (913) 628-4286

24 January 1985

M E M O R A N D U M

To: Dr. T. L. Yates, Curator of Mammals
Dr. J. S. Findley, Director of Museum
Dr. D. W. Duszynski, Chairman of Biology
Dr. F. C. Garcia, Dean of Arts and Sciences
Dr. McAllister Hull, Provost

From: J. R. Choate, Acting Chairman JRC
Committee on Systematic Collections,
American Society of Mammalogists

Re: Reaccreditation of the Collection of Mammals in the Museum of Southwestern Biology, University of New Mexico

The collection of mammals of the Museum of Southwestern Biology at the University of New Mexico was approved in 1975 as meeting the minimal curatorial standards established by the American Society of Mammalogists' Committee on Systematic Collections. Initial approval of the collection was based on the experience of members of the committee, and there was no on-site evaluation.

On 3-4 October 1984, a panel of the committee visited the University of New Mexico to reassess the status of its collection of mammals. Members of the panel were: Dr. J. R. Choate (Director of Museums, Fort Hays State University); Dr. H. H. Genoways (Curator of Mammals, Carnegie Museum of Natural History); Dr. M. L. Johnson (Director Emeritus, Puget Sound Museum of Natural History); Dr. C. Jones (Director of The Museum, Texas Tech University); Dr. D. J. Schmidly (Curator of Mammals, Texas A&M University). This memorandum and the attached report summarize the findings and recommendations of the panel.

The collection of mammals of the Museum of Southwestern Biololgy is the largest collection of its kind in the Southwest and one of the 10 or so largest in North America. The Museum of Southwestern Biology is a departmental museum, and the collection of mammals therefore does not receive line-item funding. Nevertheless, the collection is extremely active in terms of research and education, and is growing at a rate exceeded only by

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the National Museum of Natural History and the Carnegie Museum of Natural History. It is a nationally-recognized resource of considerable importance to its university and state, the nation, and society at large.

The evaluation conducted by the panel was comprehensive and constructive. The collection is well curated and meets the minimal standards of maintenance established by the committee, as summarized on the attached collection evaluation worksheet. The panel did, however, find areas beyond the minimal standards in which improvements are needed. These areas of needed improvement are listed below in the form of a series of recommendations of the committee. Some of the recommendations are directed to the curatorial staff and some to the departmental and university administration.

1. Ultraviolet filters should be placed on all flourescent lights in the room in which specimens of mammals are housed.

2. The dermestid colony for skeletal preparation is totally inadequate. Additional space in which to maintain the colony and process skeletal materials added to or removed from the colony is necessary if the collection is to remain active and continue to grow. The additional space should be isolated from the collection, as is the present space, and should have adequate heating, ventilation, and environmental controls. Additional chambers for the colony, such as old freezers, should be obtained.

3. The preparation lab also is inadequate, in part because it must be used as a storage facility for curatorial and preparation materials. Such materials should be removed from the lab so to enable more effective use of that space.

4. The curatorial staff should insure that scientific names are on labels in all skull vials and on all skeletal boxes in the collection.

5. All skeletal materials of sufficient size should be numbered so to reduce the likelihood of accidental interchange of parts among specimens.

6. Loans received from other institutions in cardboard boxes or other unsuitable containers should be returned in appropriate wooden boxes with a request that the boxes be mailed back to the Museum of Southwestern Biology.

7. The collection is in serious need of storage space. Boxes and other stored materials should be removed from the collection room and from the vicinity of gas lines and other hazards. Storage space should be accessible to the collection room and should comply with fire marshall standards.

8. The curatorial staff should review its fumigation procedures. The committee recommends that fumigant be allowed to remain in cases for no more than 10 days at a time, perhaps twice per year (more often if evidence of infestation is found).

9. Curation of the collection does not cease when classes are not in session. Accordingly, the curator should have a 12-month appointment, perhaps with the summer portion returnable if that time is covered by grant funds.

10. The museum publication series brings prestige to the entire university, and the university should assume some or all of the cost of its production.

11. The curator of the collection of mammals (and curators of other collections as well) should produce annual reports for use by the Museum Director and the Department Chairman. Forms generated for this purpose would insure that the annual reports for different collections include comparable information.

12. It is urgent that the University Administration begin planning now for increased specimen storage space for the collection. Cases can be double-stacked for the next few years, but resultant reduction of lay-out space will markedly reduce productivity and effectiveness in curation and will impede research. If a new facility is constructed, it should include more than double the space presently available for the collection of mammals, and should house adequate preparation and storage rooms.

13. The committee recommends that, if a new facility is constructed, it also should include a separate, fire-proof room for storage of the alcoholic collection.

14. The curatorial staff should continue to identify specimens used as standards for biological purposes. This inovative activity was recognized by the committee as having considerable scientific importance for future investigators.

15. Staffing for the collection is adequate but minimal. It is important that the level of staffing not diminish if, in the

future, federal support for the collection is not available. In this regard, the collection manager position should be 100% line-item rather than the present 50%.

16. The committee recommends the use of wardrobe-type cabinets for storage of large, tanned skins.

17. The University Administration should consider establishing a departmental or museum library to be maintained by a professional librarian and to be housed near the collection facilities.

In review, the Museum of Southwestern Biology houses one of the most important and active collections of mammals in North America. The collection is well maintained and, with only minor improvements, could serve as a model for other institutions to emulate. The Committee on Systematic Collections of the American Society of Mammalogists therefore approves the collection of mammals of the Museum of Southwestern Biology for reaccreditation.

Some members of the committee had qualms about the administrative hierarchy of which the museum is a part. The committee therefore recommends that curatorial personnel and the Museum Director monitor future changes in departmental administration with an eye toward removal of the museum from departmental stewardship if and when it is judged desirable to do so.

Finally, the committee congratulates the staff of the Museum of Southwestern Biology for its dedicated efforts with respect to the collection of mammals, and compliments the administration of the University of New Mexico for its continuing support of the Museum of Southwestern Biology.

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ANNUAL REPORT OF PROFESSIONAL ACTIVITIES

CASTETTER LABORATORY OF ETHNOBOTANICAL STUDIES (CLES)

FY 1984-85

CLES Technical Series #123-148

#123. Toll, Mollie S. Floral remains from late Basketmaker/early Pueblo sites in the Rio Puerco Valley, N.M. Elena Gallegos Land Exchange: Atrisco Parcel. USDA-FS P.O. #40-8371-3-594. Ms. on file, USDA-FS, Albuquerque. Joseph Tainter, Principal Investigator; Carol Raisch, Project Director. 28 pp. July 19, 1984.

#124. Toll, Mollie S. Flotation from the Fairchild Site (LA 45732), near Alamogordo, N.M. USDA-FS P.O. #40-8371-3-594. Ms. on file, OCA, UNM, Albuquerque. Roger Anyon, Project Director. 2 pp. Aug. 9, 1984.

#125. Toll, Mollie S. Botanical materials from late pithouse occupations in the El Moro Valley, N.M. USDA-FS P.O. #40-8371-3-594. Ms. on file, USDA-FS, Albuquerque. Joseph Tainter, Principal Investigator; Roger Anyon, Project Director. 17 pp. Sept. 6, 1984.

#126. Toll, Mollie S. Botanical evidence of subsistence at a PII pithouse village (LA 45884) and a Piro fieldhouse (LA 45885) in the Rio Abajo. Ms. on file, Laboratory of Anthropology, Museum of New Mexico, Santa Fe. Yvonne Oakes, Project Director. 10 pp. Sept. 20, 1984.

#127. Clary, Karen H. Pollen analysis of a Late Mesilla Period archaeological site, Fairchild (LA 45732), near Alamogordo, N.M. Ms. on file, OCA, UNM, Albuquerque. Roger Anyon, Director. 15 pp. Oct 4, 1984.

#128. Cully, Anne C. Pollen analysis at four sites, Guadalupe County and Bernalillo County, N.M. Ms. on file, Public Service Company of New Mexico, Albuquerque. Mark Harlan, Project Director. 11 pp.

#129. Toll, Mollie S. Archaic and historic botanical materials from Cerrososo Canyon Sites, Northeastern N.M. Ms. on file, Carson National Forest, Taos. Jon Young, Project Director. 22 pp. Oct. 25, 1984.

#130. Cully, Anne C. Pollen analysis at five Archaic Period sites on Vermejo Period site and one historic site, Colfax County, Northeastern N.M. Ms. on file, Carson National Forest, Taos. Jon Young, Project Director. 33 pp. Dec. 12, 1984.

#131. Cully, Anne C. Preliminary plant list, Bureau of Land Management Wild and Scenic River and Guadalupe Mountain, Taos County, N.M. Ms. on file, Bureau of Land Management Wild and Scenic River, Questa. Patricia Kennedy, Project Director. 7 pp. Dec. 15, 1984.

#132. Clary, Karen H. Progress Report: An analysis of pollen from Coastal Sediment Cores, and Ladrones Cave, Projecto Santa Maria, Panama. Ms. on file, Department of Anthropology, Temple University, Philadelphia and Smithsonian Tropical Research Institute, Ancon, Republic of Panama. 20 pp. Jan. 25, 1985.

#133. Toll, Mollie S. Plant utilization at Pueblo Alto, a chocoan town site: Flotation and macrobotanical analyses. Ms. on file, Division of Cultural Research, National Park Service, Albuquerque. W. James Judge, Chief. 158 pp. Jan. 31, 1985.

#134. Cully, Anne C. and Jack F. Cully. Vegetative cover, diversity, and annual productivity, Chaco Canyon, N.M. Ms. on file, Division of Cultural Research, National Park Service, Albuquerque. W. James Judge, Chief. 40 pp. Feb. 8, 1985.

#135. Clary, Karen H. An analysis of two pollen samples (LA 16769), a Spanish colonial farming locale, on the Santa Fe River, south of Santa Fe, N.M. Ms. on file, Public Service Company of New Mexico, Albuquerque. Mark Harlan, Project Director. 10 pp. Feb. 11, 1985.

#136. Toll, Mollie S. Flotation Scan from Shallow Dune Sites in the Carlsbad, N.M. area. MNM Project 41.347; Contract no. 73-905-41.0068. Ms. on file, Laboratory of Anthropology, Museum of New Mexico, Santa Fe. Yvonne Oakes, Project Director. 2 pp. Febuary 1985.

#137. Toll, Mollie S. Flotation at a spanish colonial farm (LA 16769) along the Santa Fe River, N.M. Ms. on file, Public Service Company of New Mexico, Albuquerque. Mark Harlan, Project Director. 3 pp. March 7, 1985.

#138. Cully, Anne C. Indian ricegrass (Oryzopsis hymeusides): A potentially useful wild grass species adapted to dunal habitats. Ms. on file, Rocky Mountain Forest & Range Experiment Station, Foresty Sciences Laboratory, Arizona State University, Tempe, Arizona, 82587. Dr. David Patton, Project Leader. 30 pp. March 18, 1985.

#139. Clary, Karen H. Preliminary Report. An analysis of pollen from archaeological sites, the Projecto Prehistorico Arenal, Costa Rica: Evidence for site environment and subsistence activities. 20 pp. March 22, 1984.

#140. Clary, Karen H. Results of a pollen scan from samples from archaeological sites near Carlsbad, N.M. (LAs 36564, 36565, 36766, 36567). Ms. on file, Laboratory of Anthropology, Museum of New Mexico, Santa Fe. Yvonne Oakes, Project Director. 7 pp. March 27, 1985.

#141. Toll, Mollie A. An overview of Chaco Canyon macrobotanical materials and analyses to date. Ms. on file, National Park Service, Chaco Center, Albuquerque. 44 pp. March 31, 1985.

#142. Cully, Anne C. Pollen analysis at Sikyatuupela (PAO-83-33), a Basketmaker III/Pueblo II site, Northeastern Arizona. Ms. on file, Office of Contract Archeology, UNM, Albuquerque. Lynne Sebastian, Project Manager. 37 pp. April 4, 1985.

#143. Toll, Mollie S. Flotation and macrobotanical remains from Basketmaker and Pueblo II occupations (PAO-83-33), northeastern Arizona. Ms. on file, Office of Contract Archeology, UNM, Albuquerque. Lynne Sebastian, Project Director. 20 pp. April 8, 1985.

#144. Clary, Karen H. An analysis of pollen from a 10th century Pueblo II Period pit structure (5MT8371) and a heating feature (5MT8286) in Negro Canyon, southwestern Colorado. Ms. on file, Division of Conservation Archaeology, N.M. Doug Dykeman, Project Director. 16 pp. June 11, 1985.

#145. Toll, Mollie S. Two flotation samples from a small puebloan site (LA 49060) near Algodones, N.M. Ms. on file, OCA, UNM, Albuquerque. Patrick Hogan, Project Director. 2 pp. June 17, 1985.

#146. Clary, Karen H. An analysis of 49 pollen samples from the Abiquiu Reservoir District, north-central N.M. Ms. on file, Chambers Consultants & Planners, Albuquerque. Dr. William Reynolds, Project Director. 59 pp. June 26, 1985.

#147. Toll, Mollie S. Return to Rowe Pueblo: Further excavations reveal substantially better preservation of floral remains in flotation samples. Ms. on file, UNM Archeological Field School, Dept. of Anthropology, Albuquerque. Dr. Linda Cordell, Director. 17 pp. June 28, 1985.

#148. Toll, Mollie S. Flotation analysis at an isolated 10th century pit structure (5MT8371) near Yellow Jacket, Colorado. Ms. on file, Division of Conservation Archaeology, Farmington. Doug Dykeman, Project Director. 18 pp. July 11, 1985.

Papers Delivered at Professional Meetings

Cully, Anne C. "Indian ricegrass (Oryzopsis hymeusides): a potentially useful wild grass species adapted to dunal habitats." Meeting on Management and Utilization of Arid Land Plants, Saltillo, Coahuila, Mexico. Jointly sponsored by Secretary of Agriculture, Mexico, and U.S. Department of Agriculture. February 1985.

Cully, Anne C., Marcia Donaldson, Mollie Toll, Klara Kelly. "Estimating prehistoric agricultural potential: an interdisciplinary approach." Society for American Archaeology, Denver. May 1985.

Toll, Mollie S., Anne Cully. "Archaic subsistence and seasonal population flow, northwest New Mexico." Society for American Archaeology, Denver. May 1985.

Toll, Mollie S. "Flotation sampling: problems and some solutions." Society for American Archaeology, Denver. May 1985.

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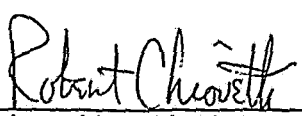
1984
ANNUAL REPORT

ELECTRON MICROSCOPY FACILITY

Department of Biology
University of New Mexico
Albuquerque, New Mexico



Robert Chiovetti, Ph.D
Assistant Professor
Director, Electron Microscopy Facility

INTRODUCTION

January of 1985 marks the completion of the first full year of operation for the Electron Microscopy Facility, and it gives me great pleasure to inaugurate a series of Annual Reports with this issue. These reports will be prepared on a calendar year basis and will be distributed to all faculty in the Department of Biology. The distribution list also includes my colleagues in the UNM School of Medicine and several other laboratories and EM facilities at other institutions.

The Annual Report is not meant to be a scientific treatise on electron microscopy. I would prefer to use it as an instrument to critically appraise the progress of the EM Facility, to identify emerging ideas and advances in the field of electron microscopy and to explain our own contributions to the rapidly expanding discipline of specimen preparation. I will not use copious references to the literature, but these will be provided to those of you who would like more information.

The EM Facility is still in its infancy. Consequently our problems are somewhat greater than in a well-established facility, and many of the problems are related to funding. This is not unusual for any laboratory, but the situation is especially exacerbated when one is trying to set up a facility from "scratch." In spite of major investments in renovation and equipment over the past two years (over $60,000), the investment has just begun. Especially on the topic of funding, you will notice that I have spoken candidly in the following pages.

It became very clear to me during 1984 that many of my colleagues had no idea what an electron microscopist does, nor how he does his work. There also seems to be a general lack of understanding about the functioning of the EM Facility and its role in the mission of the Department of Biology. The EM

Facility participates in three missions: teaching, research and service. The concept of an EM service facility for the Department of Biology has not been adequately addressed, and this is something that simply must be done. I hope the Annual Report stimulates some dialogue between the faculty members on this subject. On the subject of service, I would only add that a large amount of what has transpired over the past year has been for the express purpose of creating some good public relations for the Department with the larger University community, North Campus and the community of Albuquerque. As it turns out, we have succeeded in not only reaching into the community but also into other regions of the state. Much of this work has been centered around both service and teaching, and the two are frequently not easily separated.

On the subject of research, there is much to be investigated with respect to specimen preparation, but we should bear in mind that any research grant proposals dealing with this subject stand very little chance of being funded when the EM Facility is less than adequately equipped. It therefore seems in the best interest of all concerned to begin with collaborations, and to establish some "proof of principle" before seeking extramural funding. I have therefore made it a top priority to deal extensively with the School of Medicine, with several departments on North Campus and with Sandia and Los Alamos National Laboratories.

Teaching has perhaps the most immediate feedback, and during 1984 the EM curriculum has been particularly rewarding. I take a great deal of pride in the fact that the EM courses are fully booked a year in advance. The next available slots in Biol 547 Transmission EM and Biol 548 Scanning EM are for the 1986-87 academic year. Students have commuted from as far as Los Alamos National Laboratories to take the EM courses which we offer in the Department of Biology.

I hope you will find the Annual Report interesting reading. Many annual reports are totally boring and are probably read by less than one percent of the distribution list. One reason for this is our tendency to replace an exciting statement with a dreary table (is there really safety in numbers?). Our editorial eye is constantly on the lookout for sentences which might be too inflammatory, too defamatory, too condescending, too elitist. We attempt to reach the linguistic equivalent of a least common denominator.

I have deliberately avoided organizing the Annual Report in such a fashion. Its main function is communication. To the best of my knowledge there is no substitute for written language when the purpose is to convey an idea.

A SHORT HISTORY OF THE EM FACILITY

I came to the Department of Biology in October, 1982 and I was given the tasks of upgrading and expanding the departmental electron microscopy facility, or organizing and teaching two courses in EM (transmission and scanning EM), and of preparing grant proposals to purchase some badly needed instrumentation. In 1982 the entire EM area, including darkroom facilities, was jammed into slightly less than 400 square feet; the microscope room served four functions since it was also an office, a negative developing darkroom and a specimen preparation laboratory. A storage room under a stairwell served as the ultramicrotomy room.

The first six months were spent cleaning and repairing the equipment and teaching a course in transmission electron microscopy. For each laboratory demonstration we had to schedule three sessions because the EM facility could not comfortably accommodate more than three persons at a time. We began making the drawings and the floorplan for an expanded facility; the new area was to include Rooms 7, 9 and 11 in Castetter Hall. The actual construction began

halfway into the Spring 1983 semester and continued through the summer. The entire EM program had to be shut down during this time. While the laboratory was closed several of us in the department submitted a proposal to the NSF for a scanning electron microscope and a new transmission electron microscope. The proposal was not funded. We resubmitted the proposal ($118,000) for a transmission EM only, and at this writing the NSF Biological Instrumentation Program panel is still in deliberation. We received a telephone call from the NSF shortly before Christmas, informing us there was a very good possibility of funding. However we have not yet been officially notified.

We also have pending a proposal to the National Institutes of Health ($95,700) for a new transmission electron microscope. The NIH request is being made to the Minority Biomedical Research Support Program via the office of Dr. Alonzo C. Atencio in the School of Medicine.

Although I am cautiously optimistic about the proposals, we must face the fact that the NSF and the NIH are much more likely to fund proposals from well established EM laboratories with a strong track record in ultrastructural research and a history of strong support from their institutional hierarchies. The laboratories which were funded last year were requesting funds for intermediate- and high-voltage microscopes, computer assisted X-ray microanalysis, electron energy loss spectroscopy, image analysis, etc. The Department of Biology's EM Facility is not yet capable of competing with large, well-staffed ultrastructure laboratories; but I see no reason why we cannot become competitive within five to eight years. For the present we simply need good, basic scanning and transmission electron microscopes to adequately meet the research and teaching needs of our faculty and graduate students.

We have made considerable headway in the past two years. We have increased the floor space devoted to EM by about 300%; all laboratory and office spaces have been renovated; we have purchased a state-of-the-art Sorvall MT-5000 ultramicrotome, a Denton vacuum evaporator and Balzers critical point dryer. The vacuum evaporator is equipped for carbon and metal evaporation, sputter coating, glow discharge and low-angle rotary shadowing.

In other words, we have gone about as far as we can with very limited financial support from UNM and with departmental funds. The next step is a large and expensive one. We must somehow replace our aging (vintage 1965) transmission electron microscope and purchase a scanning electron microscope.

FUTURE PLANS

The very real problem of money must now be faced. Electron microscopy is an expensive business, and the returns on a substantial capital investment are painfully slow.

We are basically in a "Catch-22" situation, since Federal funding sources are not willing to finance programs that do not have a strong history of extramural support. In the past, the Department of biology has not had a strong track record of funding for EM because the facilities were nonexistent. Put another way, low levels of funding mean no new equipment, and no new equipment ensures our continued low levels of funding.

How do we break this circle? We need an infusion of funds, that is clear. What is not clear is from where those funds should come. Federal dollars are not easily obtained for a new endeavor, especially considering the intense competition for a limited Federal research budget. The NSF is currently funding about 20% of the proposals which it receives.

Should we then call upon the state or the University to partially fund the purchase of new equipment? The lack of institutional support has been a problem in the past, and this was mentioned by two of the external reviewers of our last equipment proposal to NSF. The prospects for a commitment from the State of New Mexico or the University may be very slight this year. The 1985 Legislative Session is now under way, and the initial reports from Santa Fe indicate that although education will have a high priority on the agenda, new revenues are lagging behind new requests and the recommendations from the Board of Educational Finance.[1]

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[1]The Albuquerque Tribune, January 9, 1985, p. 1.

TEACHING

Two new courses in electron microscopy have been organized and are now regularly offered: Biol 547 Transmission Electron Microscopy and Biol 548 Scanning Electron Microscopy. In addition, the Spring 1985 semester is seeing the debut of a course entitled "Cellular Ultrastructure." This course will be offered as a 402/502 until its performance is critically evaluated. Pending a favorable review, the course will be assigned a regular number in 1986.

Except for a course in advanced microscopy which is taught in the Medical School, our courses are the only ones in electron microscopy which are offered anywhere in Albuquerque or in this region of New Mexico. We frequently draw students from the Medical Center to our electron microscopy courses. As I mentioned in the Introduction, we have even had senior research personnel from Los Alamos National Laboratories commute to Albuquerque just to take the EM courses.

The popularity of these courses indicates that they fulfill a definite need. Some would consider the time spent in one-on-one instruction to be a burden, but there is no other way to teach a rigorous course in electron microscopy. The students must spend a minimum of three hours in closely supervised instruction on all preparative equipment such as critical point dryers, vacuum evaporators, ultramicrotomes, etc. The instruction time on the electron microscopes is usually six to eight hours. The students are then given a final "check-out" on each piece of equipment before they are permitted to use it without supervision. We find that this arrangement is best for all concerned; the students are thoroughly familiar with the equipment, and the instrumentation suffers fewer insults due to user error. Because of the time involved in the teaching, I have placed a maximal enrollment of six students in each EM course. The disadvantage

of small classes is that they usually fill very quickly, and waiting lists are not uncommon. At the present time both classes are filled until the 1986-87 academic year.

Although the first teaching commitment of the EM Facility must be to the graduate students in the Department of Biology, we should not discount the good which can come from accommodating students and research personnel from other institutions whenever this is possible. A sampling of past and future enrollments reveals that by the end of 1985 we will have had persons from the following organizations as students in the EM curriculum:

Life Sciences Division, Los Alamos National Laboratories
Department of Cell Biology, School of Medicine, UNM
Department of Pathology, School of Medicine, UNM
Department of Anatomy, School of Medicine, UNM
Department of Physical Anthropology, UNM
Veterinary Diagnostics Laboratory, State Health Laboratories
Biological Sciences Bureau, State Health Laboratories
Intel, Inc.
Albuquerque Public Schools

The first five organizations were represented in the 1984 classes; the last four organizations will be represented during 1985 classes.

BIOL 547 TRANSMISSION ELECTRON MICROSCOPY (Offered Fall Semester Only)

The philosophy behind this course is that students should not only know how to operate the equipment but they should also have an understanding of how the equipment is constructed and the theory behind its operation. Biol 547 is therefore designed to give the students a balanced exposure to the theory of electron microscopy as well as instruction in the major steps of specimen preparation, ultramicrotomy, electron microscopy, photography and darkroom techniques. Each student is evaluated at every major step throughout the course to insure that he/she has mastered the techniques and the equipment.

The textbook for this course is one which I have written. This 80-page laboratory manual offers the student a self-paced guide through specimen preparation from fixation of the material to the final electron micrograph.

Biol 547 is organized around a weekly lecture period and a separate laboratory session. The total formal instruction time is three hours per week, but most students devote two to three times this amount in the laboratory. Keys are available during evening and weekend hours so that the students can work at times which are convenient to their schedules. The formal laboratory sessions last for approximately two-thirds of the course. The last portion of the course is left free so the students may work on individual projects. The following class schedule reflects an average semester's offering.

WEEK NO.	LECTURE	LAB
1	Organizational Meeting	Organizational Meeting
2	Specimen Preparation	Embedding
3	Specimen Preparation	Embedding
4	Theory of EM: Electron Scattering	Grid Coating
5	Image vs. Object	Knifemaking
6	Resolution; Interaction of Electrons with Magnetic Fields	Block Trimming
7	The Electromagnetic Lens and Lens Aberrations	Ultramicrotome Instruction
8	Lens Aberrations; Beam-Specimen Interactions	Microscope Instruction
9	The TEM	Microscope Instruction and Darkroom Instruction
10	The TEM	Microscope Instruction
11	Vacuum Technology	Individual Projects
12	Photography: Light vs. Electrons	" "
13	Work on Individual Projects	" "
14	" " " "	" "

BIOL 548 SCANNING ELECTRON MICROSCOPY (Offered Spring Semester Only)

Since the Biology Department does not have a scanning electron microscope we must rely on our colleagues in the Department of Anatomy to provide the instru-

mentation for this course. Biol 548 is team-taught between Dr. Robert Waterman in Anatomy and myself. Because the Anatomy Department's SEM is primarily dedicated to research, we must necessarily walk a thin line to gain access to the SEM for teaching. I am particularly indebted to Dr. Robert Waterman and Dr. Robert Kelley, Chairman, and to the EM Users' Committee for understanding the importance of graduate education in electron microscopy and for making us feel welcome in the Biomedical Research Facility.

This course is still undergoing refinement and I must say that we have not been without some trying times. Most of the problems have been associated with students misusing some rather delicate and very expensive equipment which is the property of the Anatomy Department. Most of the problems should be alleviated in the future by the following:

The Biology Department now provides a preparation laboratory, critical point dryer, vacuum evaporator and all supplies for the course.

Specific periods of time are set aside for teaching on the SEM (two half-days per week). During these times either Dr. Waterman or I are in the facility and are "on call" for problems and questions.

Because of the popularity of this course and the delicate nature of the instrumentation, we have made Biol 548 a restricted course (orange card required). We also suggest that only students who anticipate using scanning EM in their research should enroll in the course. Enrollment is limited to six students. The problem of access to the SEM could of course be solved if we could secure the funds to purchase a scanning EM (ca. $85,000) for the Biology Department, but for the reasons which I have already discussed this is not likely in the near future.

The organization of Biol 548 assumes that the student has already taken Biol 547 and has a firm foundation in the theory of electron microscopy and electron

optics. Only those aspects of the SEM which differ from the TEM are discussed in formal lectures. As a consequence the students start working on the microscope much sooner, and they begin small "mini-projects" during the second week of class. Most of the "mini" and "maxi-projects" are designed as problem solving exercises. The student usually varies one parameter in specimen preparation or imaging and studies the effects of this parameter on the final electron micrograph. A typical semester's schedule is as follows:

WEEK NO.	LECTURE	LAB
1	Introduction to Course	SEM Instruction
2	Specimen Preparation	Drying/Coating
3	Photography/Darkroom	Darkroom
4	The SEM	SEM Instruction
5	The SEM	SEM Instruction
6	The SEM	Project #1
7	The SEM	Project #1
8	Interpretation of Micrographs	Project #1
9	Advanced Darkroom Techniques	Project #2
10	Beam-Specimen Interactions	Photocopying for Slides
11	Visit Microprobe Lab, Geology	Project #2
12	No Lecture	Project #2
13	No Lecture	Project #2
14	Class Presentations	No Laboratory

BIOL 402/502 CELLULAR ULTRASTRUCTURE (Offered Spring Semester Only)

At this writing, the details for Cellular Ultrastructure have not been completely worked out, but the course is designed around a seminar format. Students form "teams" for seminar presentation, and the teams are in charge of each class session on a rotating basis. The students are given a reading list of significant papers in electron microscopy and cell biology, and they do their bibliographic research both in Zimmerman Library and in the Medical Center Library.

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Each member of a "team" presents one paper to the class for discussion. Students briefly abstract one paper per week unless they are scheduled to make a formal presentation to the class during any particular week.

The reading list will cover certain "classical" papers in electron microscopy as well as the current literature in cell biology and ultrastructural research. The topics to be covered include, but are not limited to, the following:

The extracellular matrix - collagen, elastin, proteoglycans
The plasma membrane - structure, composition, fluidity, fusion
The cytosol fraction - soluble enzymes, polysomes
Internal membranes - coated pits/vesicles, mitochondria, chloroplasts, Golgi, endoplasmic reticulum, peroxisomes, glyoxisomes, endocytosis
The nucleus - nuclear matrix, structure of chromosomes, nuclear membranes, pore complexes
The cytoskeleton - microtubules, microfilaments, intermediate filaments
Investigative techniques - scanning and transmission EM, high voltage EM, autoradiography, freeze-fracture EM, low temperature embedding, immunoelectron microscopy, histochemistry

TRENDS IN ELECTRON MICROSCOPY

Electron microscopy is a field which is continually growing and evolving. There is no doubt that we now have the technology to produce "pretty pictures". But the more we learn about biological material, its preparation for electron microscopy and the conditions of electron imaging, the more we realize how little we really know.

Just in the field of specimen preparation, for example, we have seen tremendous strides during the past few years. Fixation, the chemical cross-linking of biological material, is usually the first step in preparing samples for electron microscopy. There have literally been books written on just this step. An

excellent example is Professor M. A. Hayat's 500 page tome on the subject[1]. There are also conferences which are exclusively devoted to specimen preparation[2].

Our electrical and mechanical engineering skills have made possible the manufacture of sophisticated, extremely sensitive electron microscopes. These instruments are frequently computer-assisted and are capable of X-ray microanalysis and electron energy loss spectroscopy; the information can be digitized, stored on tape and recalled for later image analysis, artificial color enhancement, etc. An electron microscope that only a few years ago was called "high voltage" is now called an "intermediate voltage" instrument. The Philips Corporation, for example, now commercially offers a 300,000 electron-volt microscope.

The other side of the coin, however, reveals that our knowledge about specimen preparation techniques is lagging miserably behing our ability to manufacture microscopes. Osmium tetroxide has been used as an EM fixative for 35 years, and there is still much controversy about how osmium fixes tissue. The same controversy is raging about glutaraldehyde, another EM fixative. The superb fixation by glutaraldehyde may be partly the result of polymeric impurities in the reagent. Indeed, some investigators have deliberately treated glutaraldehyde to induce its partial polymerization, and they report a better structural preservation with polymerized glutaraldehyde than with the pure, monomeric dialdehyde!

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[1]Hayat, M.A. (1981). Fixation for Electron Microscopy. Academic Press, New York, 501 pp.

[2]Revel, J.-P., Barnard, T. and Haggis, G.H. (eds.). (1984). The Science of Biological Specimen Preparation for Microscopy and Microanalysis. SEM, Inc., AMF O'Hare, IL., 245 pp.

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There have been some significant advances in specimen preparation during the past few years, such as the designing of low temperature plastic embedding media[1,2]. These resins were designed to overcome the denaturing effects of dehydration with organic solvents and polymerization with heat. Lowicryl resins can be used at -50 to -20°C, and they are polymerized with ultraviolet light in a temperature-independent fashion. Lowicryl K4M has especially been of advantage in localizing proteins within cells and tissues by using tagged antibodies, probably because the low temperatures which are used during embedding result in less denaturation of the sample.

Another series of significant advances have been made in the freezing of samples. One now speaks of "chemical" fixation to distinguish it from "physical" fixation by freezing. Frozen sectioning used to be applicable only to light microscopy, but now all of the major ultramicrotome manufacturers offer kits for frozen sectioning for electron microscopy (commonly called cryoultramicrotomy). Of course, one is then faced with the problem of what to do with a frozen hydrated thin section; how do we observe it in the electron microscope? Since the column of the electron microscope must be under vacuum, the stage with the section must be kept cold to avoid the sublimation (evaporation) of the frozen water. This is usually done by cooling the stage to ca. 4°K with liquid helium.

There are other applications with frozen specimens; they may be fractured open to examine the hydrophobic cores of membranes; frozen cells can be broken open and the ice deliberately removed by sublimation (deep etching) so that the

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[1]Armbruster, B.L. et al. (1982). J. Microscopy, 126:77-85.

[2]Chiovetti, R. (1982). Lowicryl K4M and HM20 Instructions for Use. Chemische Werke Lowi Gmblt, Waldkraiburg, FRG.

interior faces of membranes can be seen directly. Also, the ice can be removed completely by sublimation (called "freeze-drying" or "lyophilization"). In the latter case, freeze drying provides an alternative to the more routine ways of dehydrating samples, e.g. with organic solvents. The dried specimens can then be placed directly in a plastic resin and polymerized.

Our lab has recently made some rather startling discoveries about the use of freeze-drying in the preparation of biological material for electron microscopy. In collaboration with Dr. Linda McGuffee, Department of Pharmacology, we have shown that chemically fixed tissue can be embedded and sectioned for electron microscopy. This may be highly significant for the study of cellular ultrastructure and cytochemistry. Our findings are discussed in the RESEARCH section of this report.

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RESEARCH

Unless an electron microscopy laboratory is very large, well-staffed and self-contained, the research efforts of the laboratory are best advanced by collaboration with other investigators. This fact tends to blur the line between research and service; I would suggest that any attempt to separate these two functions is highly arbitrary and is doomed to failure. How can one predict, for example, when a "research" effort into specimen preparation or electron imaging may turn into a "service" because the finding is so dramatic that several laboratories wish to utilize the new technology in their own research programs? In such a case, the electron microscopist's original research then becomes service-oriented work.

A partial distinction can be drawn between research and service, however. We can separate the projects into those in which the microscopist is actively involved and has more than a casual interest, and projects in which the microscopist merely serves as a resource person, answering occasional questions or providing technical assistance when needed. The projects listed below are of the former category, i.e., those in which I am actively involved, or have been involved, during 1984.

1. Application of Low Temperature Embedding:

The field of low temperature embedding to minimize protein denaturation has been of major significance to electron microscopy, because it permits us to to localize compounds and substances in cells with sensitive cytochemical and immunocytochemical probes.[1]

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[1]Armbruster, B.L, Kellenberger, E., Carlemalm, E., Villiger, W., Garavito, R.M., Hobot, J.A., Chiovetti, R. and Acetarin, J.-D. (1984). Lowicryl Resins - present and future applications. In: The Science of Biological Specimen Preparation for Microscopy and Microanalysis. J. P. Revel, T. Barnard and G.H. Haggis, eds., SEM, Inc., AMF O'Hare, IL 60666, 77-81.

As a first step in establishing a resource facility for low temperature embedding here at UNM, I applied to the National Institutes of Health Biomedical Research Support Grant program for funds to construct the necessary equipment. The funds were provided in 1983, and we now have a low temperature embedding apparatus in the newly renovated EM Facility. The equipment is already too small to adequately handle large experiments, and I am in the process of designing a larger version. I will attempt to obtain the necessary funds in 1985. In the meantime, I am collaborating with my colleagues in the School of Medicine to construct a larger embedding apparatus which will be housed in the Department of Anatomy's EM facility. The construction of the current equipment has sparked several collaborative research efforts with laboratories in both the United States and Europe, which are outlined below.

2. A Significant Advance in Specimen Preparation: The Embedding of Chemically Unfixed Tissue for Electron Microscopy

In collaboration with: Dr. Linda J. McGuffee
Department of Pharmacology
University of New Mexico School of Medicine

As I mentioned in a previous section (TRENDS IN ELECTRON MICROSCOPY), many investigators are now realizing that classical embedding schemes are not necessarily the best avenues to follow in all cases. There is a significant amount of specimen denaturation during the processing of biological samples for thin section electron microscopy, and this denaturation has three main causes:

1. Chemical fixation -- glutaraldehyde is a powerful cross-linker of proteins, and it can cause changes in tertiary structure; osmium tetroxide is a potent oxidizing agent and can be highly proteolytic, even cleaving peptide bonds.

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2. Dehydration with organic solvents -- the precipitation of proteins by ethanol and acetone are well known and are even used to purify water soluble proteins. These solvents are two of the favorite dehydrating agents which are used in electron microscopy.

3. Polymerization of the plastic embedding medium with heat -- most of the embedding resins must be polymerized by "cooking" the plastic at 60-70°C for 1-3 days. Biological molecules do not as a rule withstand prolonged periods at such high temperatures.

Dr. McGuffee and I reasoned that it may be possible to bypass all three of these denaturing steps, and we have indeed just proven this.[1]

As a result of our findings, we have been invited to write an article for the Journal of Electron Microscopy Technique and we have been invited to present our work at the fourth annual Pfefferkorn Conference on the Science of Biological Specimen Preparation in March at Grand Canyon, AZ.

3. Lectin Labeling of Freeze-dried Tissue.

In collaboration with: Dr. Jurgen Roth
Abteilung Mikrobiologie
Biozentrum
Basel, Switzerland

As described in (2) above, we can prepare tissue without exposing it to chemical fixatives or organic solvents. The morphology of such tissue is quite different from classical preparations. For example, we do not use osmium to stain membranes, so the plasma membrane and internal membranes are not well-

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[1]Chiovetti, R., McGuffee, L.J. and Little, S. 1984. A new approach to low temperature embedding: quick freezing, lyophilization and direct infiltration with Lowicryl resins. Amer. Soc. Cell Biol., Kansas City, MO.

defined. It is thought that at least part of the reason we see trilaminar membranes in routine preparations is because of denaturation and precipitation. In other words, the view of the membrane may be partly an artifact, and it is perhaps serendipity that we see a bilayer membrane which conforms to our knowledge of membrane structure, composition and function.

The absence of well-defined plasma membranes in our new specimen preparations raises some interesting questions: Are components of the membranes still there, but just not visible? Have the membranes been extracted because of the time spent in the liquid resin before polymerization? If so, have just the lipids been extracted (i.e., is there a proteinaceous membrane "skeleton" remaining)? Do any remaining membrane components retain their antigenic or lectin binding capabilities?

In an effort to answer some of these questions, our laboratory is collaborating with Dr. Jurgen Roth in Switzerland. In an initial series of experiments, we are sending Dr. Roth the embedded blocks of our freeze-dried tissue, and he is sectioning them and investigating the binding of lectin-tagged colloidal gold particles to thin sections. It is known that lectins bind preferentially to the plasma membranes of cells, and not in other locations. Future studies may involve the binding of antibodies to thin sections of the freeze-dried tissue.

4. Ionic Distributions in Low Temperature Embedded Tissue: Ion Microscope Studies.

In collaboration with: Dr. Subhash Chandra
Department of Chemistry
Cornell University

As a result of our studies on low temperature embedding we are collaborating with Dr. Chandra to study the distribution of intracellular ions in embedded biological tissue. Dr. Chandra specializes in ion microscopy; he has in his laboratory what is basically a mass spectrometer microscope. The resolution of this microscope is ca 0.5 μm, so its resolution is basically the same as a light microscope, but it gives elemental maps of calcium, magnesium, phosphorus, chloride, sulfur, etc.

There is some controversy about whether low temperature embedding results in less leakage of small diffusible ions from cells. This question could also be answered by using a scanning transmission electron microscope with electron energy loss spectroscopy to make elemental maps at the ultrastructural level, but no such microscope is available in the immediate vicinity of Albuquerque.

SERVICE

Service is perhaps the most nebulous function which an individual can perform. One can be of service to the Department by being on committees; to the University by serving on the Faculty Senate or other governance bodies or committees; to the community by being actively engaged in various civic programs.

In addition, the very nature of an electron microscopy laboratory also qualifies it as being a service, since it should be of assistance to faculty members and graduate students who require histological or ultrastructural techniques in the performance of their research. We should also not forget that an electron microscopy facility can be an extremely interesting place to bring a group of school children or parents for a visit.

During 1984, the Electron Microscopy Facility hosted tours for two elementary school field trips and for Parents' Day during the university-wide Open House.

In a professional role, the facility provided support services for six faculty members and eight graduate students in the Department of Biology. In addition, we provided technical assistance to the following:

Rocky Mountain Sciences -- electron microscopy/photography
Department of Pathology -- low temperature embedding
Department of Anatomy -- low temperature embedding/immunohistochemistry
Department of Pharmacology -- low temperature embedding
Veterans Administration Hospital -- low temperature embedding
Los Alamos National laboratories, Life Sciences Division -- low temperature embedding/immunohistochemistry
Department of Physical Anthropology -- specimen preparation for scanning electron microscopy
Department of Chemistry, Cornell University -- low temperature embedding
Department of Microbiology, Biozentrum, University of Basel, Switzerland -- low temperature embedding
Department of Physiology and Cell Biology, University of Kansas -- low temperature embedding

Unquestionably, the high point for service during 1984, which had a direct impact on the largest number of people, had absolutely nothing to do with electron microscopy. In September of 1983, I wrote to a very dear friend who I admire very much, Dr. Elisabeth Kubler-Ross. I asked Elisabeth if she would like to come to Albuquerque to give a public lecture, and I received a very enthusiastic reply in the affirmative.

Six months later, on Saturday, February 18, 1984, over 2,000 people were sitting in Popejoy Hall, transfixed by Elisabeth as she talked for three hours about her work with terminally ill and dying patients and the resolution of grief which we must go through when we lose someone we love.

A group of people from several organizations worked together to bring Elisabeth to Albuquerque; her lecture was jointly sponsored by the Department of Biology, the Wellness, New Mexico Association, the Bernalillo County Mental Health/Mental Retardation Center, the American Lung Association and St. Joseph Hospital.

As a public service, Elisabeth's lecture drew people from several states to the UNM campus. During the months before the lecture we filled ticket orders from Denver, El Paso, Tucson, Phoenix and Oklahoma City. The Biology Department's share of the proceeds was donated to the Biological Society of New Mexico.

After 27 years of service
to the Biology Department,
the University, New Mexico
and the Southwest,

DR. LOREN D. POTTER

is retiring May 31, 1985

As professor of plant ecology, Dr. Potter has made a lasting contribution to the international reputation of the Department. Dr. Potter was hired as Chairman in 1958 and served in this position for 14 years. During his chairmanship, he raised money and developed preliminary plans for a new wing of our building. The additional laboratory, teaching, museum, and office space facilitated the development of the Biology Department to its present size and reputation in teaching, research, and service to the people of this state.

Dr. Potter was a student of Dr. Paul B. Sears, one of the founders of the journal *American Plant Ecology*. As a scientist, Dr. Potter has carried on Paul Sears' emphasis of applying the findings of basic research to solving daily problems in range management, mine reclamation, management of nuclear and chemical reactors, forestry management, and management of the recreational use of our National Forests, Monuments, and Parks. One of his outstanding achievements was to develop land reclamation procedures which are now used by mining companies throughout the area. The procedures are unique in that they are based on a thorough knowledge of the ecology of arid land plants. The methods are also within the capabilities of the mining companies, which are required by law to reclaim strip-mined land. Dr. Potter and his student, Dr. Edward Kelley, have been instrumental in developing some of the toughest, but also practical, mine reclamation laws in the United States. Many other of his graduate students continue to work in the field of ecology. They also fill important positions in state and federal government agencies, consulting firms, and mining companies, where they are instrumental in developing methods for reclaiming uranium mine tailings and long-term biological surveillance and monitoring at low-level nuclear storage sites. Dr. Robert Woodmansee, a former graduate student of Loren's, recently finished a two year appointment with the National Science Foundation. Dr. Woodmansee was head of the Ecosystems Program at NSF and gave direction to work in this important research area as the division leader. Dr. Potter also made major contributions to the field of Palynology and brought ecological expertise to locating archeological sites in northwestern New Mexico. His most recent publications include a volume on water resources in the Southern Rockies and High Plains, a co-authored vegetative key to the grasses, and numerous journal articles, symposia, and research reports.

Dr. Potter served as a USAID consultant in India in 1965 and 1968, and as Director of NSF-AEC Radiation Biology Institutes for Secondary and College School Teachers from 1960 to 1965. He was a member of the Advisory Council for Academic Year Institutes from 1961 to 1965. He has been the Vice-President for Research of the Eisenhower Consortium for Western Environmental Forestry Research from 1972 to 1983; during 1984 he served as President.

Loren Potter has spent 40 years as a field plant ecologist. His ecological research includes investigations in Alaska, North Dakota, Utah, Colorado, Arizona, and Texas; he has been particularly active in New Mexico and the Southwest. His research for the U.S. Forest Service, the National Park Service, and the Bureau of Land Management has been applied in nature. It has encompassed the role of fire in natural ecosystems, the effects of different logging procedures on forest ecosystems, the effects of grazing, the effects of varying water flows on the riparian vegetation in two major western rivers, and the effects of recreation on our national wildlands.

We invite you to join us in honoring this man for his many contributions to ecology and natural resource management by contributing to the Loren D. Potter Endowment Fund. The money generated by this endowment will be used to fund the Loren D. Potter Endowed Chair in Plant Ecology at the Biology Department, UNM, and to fund research in plant ecology. As alumni of the Biology Department, we have a responsibility to encourage basic research and the application of ecological principles to economic development and natural resource management. Your contributions will help continue the work begun by Dr. Potter.

Please make your check payable to the UNM Foundation L. D. Potter Endowment Fund and return in the enclosed self-addressed envelope. Thanks very much for your thoughtful assistance. If you have already contributed to the Loren D. Potter Endowment Fund through the Biological Society of New Mexico, thank you for your contribution.

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THE UNIVERSITY OF NEW MEXICO

DATE: May 17, 1985

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TO: James Wiegmann, Director of Budget

FROM: Donald W. Duszynski, Chair, Biology

SUBJECT: Loren D. Potter Quasi-Endowment Account

This Endowment is established to provide research support for a person occupying the Loren D. Potter Chair in Plant Ecology. The Chair was created by our Department to commemorate the substantial research efforts of Dr. Potter in field plant ecology because we recognize the importance of plant ecological studies as they pertain to our natural resources. This area of study has remained a strong tradition in this Department since the first course in "Plant Ecology/Field Botany" was taught during FY 1908-9 and we believe it is now proper and fitting to formally recognize this strength, in perpetuity, with the establishment of Biology's first endowed chair.

The chair will be awarded only to a tenured plant ecologist who (1) is a member of the UNM Biology Department and (2) has attained national recognition for his/her work that emphasizes field studies in plant ecology.

Only the annual interest income from the investment of the principal through the UNM Endowment Fund will be available to the holder of the Potter Chair. Such monies, as they become available to the Potter Chair on an annual basis, may be used for any purpose, except summer salary supplement, as long as it supports his/her scholarly activities (e.g., travel, supplies, equipment, technical assistance, publication costs, page charges, supplement to sabbatical leave salary, et cetera).

The selection of the holder of the Potter Chair shall be made by the Chairperson of the Biology Department (or most suitable authority in case the Department is divided into subunits or undergoes a name change) in consultation with at least three botanists or field ecologists, who, themselves, would not be candidates for the Chair.

At five-year intervals, after the first Chair is named, the holder of the Chair shall submit a written report to the Biology Department Chairperson who, in consultation as outlined in Paragraph four (above), shall decide whether to (1) extend the tenure of the Chair to the current holder for another five years or (2) reassign the Chair to someone else. The decision should be based, in part, on evaluations (by at least four nationally prominent plant ecologists outside UNM) of the recent scientific contributions of the holder of the Chair to field plant ecology.

On behalf of the Biology Department I am in agreement with the following conditions concerning the establishment of the Potter Chair in Plant Ecology.

1. Upon receipt of this document, the University will fund a quasi-endowment account in the amount of $63,215. Only the interest income from this account is to be used, in perpetuity, by the Biology Department to support the research and related scholarly activities of the holder of the Potter Chair as specified above.

2. The $63,215 represents the current market value of a 2.0-acre tract of land (Deed No. 63389) and a 2.857-acre tract of land (Deed No. 62987) which were given to UNM by Harry Ross and Arthur Brown for the benefit of the Biology Department.

3. The Biology Department acknowledges that it will have no further claim to any proceeds resulting from a future sale of these properties by UNM.

4. The Endowment shall be called the Ross-Brown Endowment and Mr. Ross and Mr. Brown should be notified how their gift has been used.

5. The first Potter Chair will be named 1 July 1991. Until that date, all interest accrued by the principal $63,215 shall be added to the principal.

THE UNIVERSITY OF NEW MEXICO

DATE: May 17, 1985

TO: Paul Zon, Accountant, General Accounting

FROM: James Wiegmann, Director of Budget

SUBJECT: Establishment of the Loren D. Potter Quasi-Endowment Accounting

Please establish, immediately, a quasi-endowment account in the principal amount of $63,215. The $63,215 should be transferred from plant funds to endowments. The investment income from this account is to be added to the principal for the next six (6) fiscal years. Beginning 1 July 1991 the investment income from the principal at that time will be used to support the research program of the UNM Biology Department as specified in the attached memo from Donald W. Duszynski, Chairman of Biology.

Two of the UNM-owned land tracts on Albuquerque's West Mesa (deeds numbered 63389 and 62987) should be transferred from endowments to plant.

The quasi-endowment account should be titled the "Ross-Brown Endowment" which will be specifically and solely used to support the Loren D. Potter Chair of Plant Ecology.

Account references: Principal (492-031-001) - untouched in perpituity
Income (292-031-100) - turned back into principal through 30 June 1991. Available to holder of the Potter Chair after 1 July 1991.
Expenditures (292-031-160)

lb

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THE UNIVERSITY OF NEW MEXICO

762

DATE: June 25, 1985

TO: Chuck Vickers, Assistant Director, Development Office, UNM Foundation

FROM: Don Duszynski, Chair, Biology

SUBJECT: Loren D. Potter Endowment Fund

This Endowment is established to provide research support for a person occupying the Loren D. Potter Chair in Plant Ecology. The Chair was created by our Department to commemorate the substantial research efforts of Dr. Potter in field plant ecology because we recognize the importance of plant ecological studies as they pertain to our natural resources. This area of study has remained a strong tradition in this Department since the first course in "Plant Ecology/Field Botany" was taught during FY 1908-9 and we believe it is now proper and fitting to formally recognize this strength, in perpetuity, with the establishment of Biology's first endowed chair.

The chair will be awarded only to a tenured plant ecologist who (1) is a member of the UNM Biology Department and (2) has attained national recognition for his/her work that emphasizes field studies in plant ecology.

Only the annual interest income from the investment of the principal through the UNM Foundation will be available to the holder of the Potter Chair. Such monies, as they become available to the Potter Chair on an annual basis, may be used for any purpose, except summer salary supplement as long as it supports his/her scholarly activities (e.g., travel, supplies, equipment, technical assistance, publication costs, page charges, supplement to sabbatical leave salary, et cetera).

The selection of the holder of the Potter Chair shall be made by the Chairperson of the Biology Department (or most suitable authority in case the Department is divided into subunits or undergoes a name change) in consultation with at least three botanists or field ecologists, who, themselves, would not be candidates for the Chair.

At five-year intervals, after the first Chair is named, the holder of the Chair shall submit a written report to the Biology Department Chairperson who, in consultation as outlined in Paragraph four (above), shall decide whether to (1) extend the tenure of the Chair to the current holder for another five years or (2) reassign the Chair to someone else. The decision should be based, in part, on evaluations (by at least four nationally prominent plant ecologists outside UNM) of the recent scientific contributions of the holder of the Chair to field plant ecology.

On behalf of the Biology Department I am in agreement with the following conditions concerning the establishment of the L. D. Potter Chair in Plant Ecology.

1. Upon receipt of this document, the UNM Foundation will establish an endowment account to include:
   (a) all monies, both past and future, donated specifically to the Loren D. Potter Endowment Fund through the Foundation; at this time my records show that amount to be approximately $895; and
   (b) the enclosed amount, $977.43, which includes all unencumbered donations toward the Potter Chair made through the Biological Society of New Mexico.

2. Only the interest income from this account is to be used, in perpetuity, by the Biology Department to support the research and related scholarly activities of the holder of the Potter Chair as specified in this document.

3. The first Potter Chair will be named 1 July 1991. Until that date, all interest accrued by the current (approximately $1,872.43) and future principal balances shall be added to the principal.

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THE BIOLOGICAL SOCIETY OF NEW MEXICO
C/O DEPARTMENT OF BIOLOGY
THE UNIVERSITY OF NEW MEXICO
ALBUQUERQUE, NEW MEXICO 87131
184

0137

26 June 1985

75-148/919

Pay to the order of Loren D. Potter Endowment Fund $ 977.43

Nine hundred seventy-seven and 43/100 Dollars

TO: NEW MEXICO EDUCATORS FEDERAL CREDIT UNION
P.O. Box 8530 1401 San Pedro, NE Albuquerque, New Mexico 87198

Payable Through: FIRST BANK (N.A.) - NORTHFIELD, MN.

For Potter Chair/UNM Foundation

Donald R. Dreyspale

⑆091901480⑆ 2380003624017⑈ 0137

Rocky Mountain Bank Note 8-3 Floral Accents

COLLEGE OF ARTS AND SCIENCES

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THE REPORT OF THE DEPARTMENT OF CHEMISTRY

July 1, 1984 to June 30, 1985

Riley Schaeffer, Chairman

I. General Departmental Information

A. Significant Achievements During the Academic Year 1984-85

Significant progress was made during the year on the important Departmental objective of strengthening its graduate education and research capabilities. Major milestones include the award to Peter Ogilby of a three year NSF Grant (at the end of his second year on the faculty), major NSF Grants to Robert Paine and to Jim Satterlee and a five year competetive renewal of an NIH Grant to Jim as well.

The Department made substantial efforts to recruit faculty at the senior level to replace both Guido Daub and Robert Tapscott. Offers, formal or informal were made to two inorganic chemists but these were unfortunately not accepted. Both individuals were from chemical industry and both eventually accepted appointments at other universities. Efforts to recruit at the assistant professor level were hampered by the low salary scales within the department. Only one offer was made to an individual who subsequently accepted an offer elsewhere. Efforts then turned to the problem of adjusting the salary scale within the Department to allow more competetive hiring. These efforts were partly successful but much remains to be done in the coming academic year.

The Fourth Annual Milton Kahn lecture was delivered May 3 by Dr. John D. Corbett from the Department of Chemistry, Iowa State University of Science and Technology, Ames, Iowa. The lecture was well attended by both local people and by associates of Prof. Kahn's from Los Alamos. A reception and dinner followed the lecture and was attended by fifty five people including guests. The custom of honoring students was repeated at this dinner. Students receiving awards from the department and their parents were invited to the dinner as guests of the Department and the awards were presented after dinner. Dr. Kahn was recovering form a broken bone and was unable to attend this years lecture or dinner.

One of the most important activities that the Department carries out in conjunction with graduate education is the active series of seminars (including special lectures such as that mentioned above) by which both students and faculty are introduced to current research as carried out in both this country and abroad. Visitors to this Department during the past academic year came from other universities, as well as industrial and governmental laboratories. A list of seminar speakers is given in Appendix A. A special feature of this years program was the fact that the inorganic seminar course was presented almost entirely by staff from Sandia National Laboratory. The series was primarily focused on problems and methods in the glass and ceramic field. It provided useful background for both students and faculty of the department who are interested in applying

chemistry to problems of importance in the area of materials science.

During the 1984-85 year 7 students were graduated with a B.S. degree in chemistry; 4 of our graduates were men and 3 were women. 9 students graduated with a B.A. degree in Chemistry; 7 of these graduates were men and 2 were women. In addition to the 16 chemistry majors, 25 men and 22 women took a minor in chemistry. At the graduate level, 6 men and 4 woman were awarded the M.S. degree and 7 men were awarded the Ph.D. in Chemistry. Students receiving degrees in Chemistry are listed below.

Students receiving the B.A. Degree in Chemistry in 1984-85

Haviva ALBERT
Daniel C. DAUBE, Jr
Daniel C. ESPINOSA
Timothy M. SLAMAN
Michael L. THOMAS
Stephen W. CARROLL
Joseph C. DESOTO
Michael N. JASPERSON
Cleotilde R. TAFOYA

Students receiving the B.S. Degree in Chemistry in 1984-85

Mark D. CHAVEZ
David A. JOHNSON
Rebecca L. MEKETA
Catherine D. TORRES
Kristine W. FULLMER
Randy W. LARSEN
Donald T. ROBERTSON

Students completing the Master's Degree in Chemistry in 1984-85

Sharon L. BLAHA
Myeong-Hee KIM
John K. NEWMAN
Mark A. VICKERS
Mary Carol WILLIAMS
Fuh-Been JIANG
Daniel J. MCCABE
Suchada UTAMAPANYA
K. Sam WELLS
Gary L. WOOD

Students completing the Doctor of Philosophy Degree in Chemistry in 1984-85

Harold D. BEESON
Robert J. FRAATZ
William E. MICKOLS
I-Hsiung YIN
Donn A. DUBOIS
Steven D. HORNUNG
Steven M. THORNBERG

A number of the students receiving the bachelors degree will go on for advanced study. Three of these will go to Medical School and three will pursue graduate studies in this department. One student has applied for graduate studies in Chemistry at another university.

The Department of Chemistry presented the following awards for academic excellence to majors during the 1984-85 year:

Mr. Mark Vickers was presented the Graduate Scholarship in Chemistry given each year to an outstanding student in the Graduate Program.

Ms. Cecilia DeBlasi was named recipient of the Steven A. Bernitsky Memorial Presidential Scholarship which is awarded each year to a senior Presidential Scholar who is majoring in Chemistry. Mr. Daniel Daube was awarded the Mike Millican Prize and the Charles LeRoy Gibson Prize.

Mr. David Johnson was presented the Ann Kahn Award. Mr. Arthur A. Russell was awarded the American Institute of Chemists Recognition Award. Mr. Rhett Alden, Mr. Lars Stangebye and Ms. Kimberly Cline were awarded the Dean Uhl Fellowship for being outstanding junior chemistry majors.

Mr. Neil B. Morley was awarded the CRC Press Freshman Chemistry Achievement Award for scholastic achievement during the freshman year.

Ms. Cecilia DeBlasi and Ms. Kathryn Graham were presented the Riebsomer Award for being the most outstanding sophomores majoring in Chemistry. Mr. Preston Herrington was awarded the

John D. Clark award for the most outstanding B.S. Freshmen chemistry major.

A list of the current faculty, staff and graduate students is given in Appendix B.

B. Significant Plans and Recommendations for the Near Future

The Department approaches the new year with the major tasks of recruitment at both faculty and graduate student levels as the most important tasks ahead. The Departmental decision was renewed to give emphasis to establishing a new area of strength in the area of materials chemistry. Initial moves to begin recruiting have been made to enable advertisements to appear in early August. Emphasis will be given to attracting one new individual in each of three areas: analytical, organic and inorganic. A major problem bound to arise in this effort is the lack of sufficient, in hand funds to establish three new research programs.

The Department undertook graduate student recruiting during the 1984-85 year with renewed vigor and was rewarded with better success in both number recruited and quality. This problem remains the number one problem of the Department. Institution of the Science and Engineering Assistantships has been of some help. Unfortunately, these have never been funded to the extent necessary to attract top quality students.

A summary of our graduate student recruiting is given in Appendix C.

The total value of accountable equipment has increased from $1,322,200 in 1983 to $2,635,159 at the end of the accounting period in 1984. Major pieces of equipment (over $10,000 purchase price) acquired during that reporting year were:

Major Equipment Additions 1983-84

166761	Nicolet Spectrometer	406,900.

C. Appointments to Staff

Ms. Barbara J. Hargis joined the staff on 17 September 1984 as a Clerical Specialist V - Accounting Clerk and Mr. David Otero joined the staff on 27 September 1984 as a Storekeeper I. Mr. Fred Husher joined the staff on 31 August 1984 and Mr. Leonard A. Stensland joined on 14 January 1985 as Instrumentation Technicians. Ms. Esther V. Gugliotta joined the staff as Editorial Assistant II on 28 February 1985.

D. Separations

Mr. Jay D. Miller, III, resigned effective 3 August 1984.

Ms. Carmen J. Cereceres resigned effective 19 September 1984.

Mr. Russell R. Hallett resigned on 21 September 1984.

Ms. Barbara M. Mosiello resigned effective 28 February 1985.

Mr. Earle E. George retired from University service on 28 June 1985.

770 E. Sponsored Research

The Department has become increasingly aggressive in the search for outside funds to support its research program. In the 1981-82 academic year the Department had active grants in the amount of $1,150,719. During the present reporting year this figure has risen to $2,035,166. Furthermore, grant request proposals for over $4,500,000 were submitted. Sixteen of the faculty submitted one or more proposals during the year and eighteen faculty had some grant support during the past year. This corresponds to about three quarters of the faculty with grants.

GRANTS ACTIVE DURING THE 1984-85 FISCAL YEAR

GRANT #	INVESTIGATOR	END DATE	SOURCE	AMOUNT
020 812 x	Allen	6/15/85	RAC	20,000
281 253 1	Allen, Bust. Ond	7/17/84	DOD	102,087
281 217 1	Bustamante	Open	Research	10,000
281 254 2	Bustamante	6/30/85	NIH	73,369
281 273 2	Bustamante	10/30/84	SURP	29,997
281 326 1	Bustamante	Open	Searle	157,500
282 659 3	Bustamante	12/31/84	MBS	15,476
020 812 x	Deck	6/15/85	RAC	800
281 156 1	Holder	8/31/84	AMCHEM	45,000
282 523 2	Hollstein	OPEN	Kotobuki	12,604
282 676 4	Litchman	12/31/85	DHHS	7,446
695 080 1	Maple	OPEN	AGENCY	8,000
281 270 2	Morrow	6/30/85	UofC	36,488
282 631 4	Morrow	12/30/85	DHHS	19,783
282 633 4	Niemczyk	12/31/85	DHHS	10,950
020 812 x	Ogilby	6/15/85	RAC	2,500
281 273 6	Ogilby	10/31/84	SURP	29,995
281 311 1	Ogilby	2/1/85	Res. Corp.	15,000
281 321 1	Ogilby	2/28/86	PRF	15,000
281 411 1	Ogilby	9/30/85	Sandia	30,000
281 273 1	Ondrias	10/31/84	SURP	29,988
281 285 1	Ondrias	12/31/84	ACS	15,000
281 296 1	Ondrias	Open	Res. Corp.	7,900
281 355 1	Ondrias	6/30/85	DHHS	73,568
281 422 1	Ondrias	2/28/85	LANL	8,721
282 664 3	Ondrias	12/31/85	DHHS	16,206
281 273 7	Ortiz	10/31/84	SURP	22,000
281 373 1	Ortiz	7/17/85	JETPROPUL	35,930
281 377 1	Ortiz	8/31/86	ACS	15,000
281 411 2	Ortiz	9/30/85	SANDIA	30,000
281 023 1	Paine	8/31/84	Am Chem	45,000
281 381 1	Paine	8/31/87	Am Chem	52,500
281 415 1	Paine	10/31/85	LANL	29,988
281 420 1	Paine/Schaeffer	12/31/85	Sandia	20,360
281 827 4	Paine	5/30/85	DOE	72,988
281 632 1	Papadopoulos	OPEN	Am. Cyan	14,382
282 636 4	Park	12/31/85	DHHS	7,446
281 194 3	Satterlee	8/31/85	PHS	59,476
281 239 1	Satterlee	9/15/85	Sloan	25,000
281 371 1	Satterlee	2/28/86	NSF	75,000
281 258 1	Schaeffer	5/31/85	ONR	73,000
281 420 1	Schaeffer/Paine	12/31/85	Sandia	20,360
281 170 1	Walters	9/30/84	AF	70,125
281 230 1	Walters	6/30/85	Sandia	45,328
		TOTAL		1,489,261

Grant Applications 1984-85

Allen	NSF	238,203
Park	NSF	255,979
Litchman	NSF	402,493
Litchman	NIH	287,023
Niemczyk	ONR	365,400
Niemczyk	U.S. Army	365,400
Niemczyk	NSF	9,947,205
Niemczyk/Walters	IBM	13,020
Ogilby	DOE	NA
Ogilby	NSF	293,064
Ogilby	RAC	3,060
Ondrias/Bustamante	NIH	133,560
Ondrias	PHS-NIH	63,861
Ondrias	LANL	5,580
Ondrias	NSF	354,673
Ondrias	ACS	52,440
Ortiz	NSF	184,250
Ortiz	DOE	184,751
Ortiz	JPL	35,930
Ortiz	Cal Tch	61,120
Paine	Sandia	17,000
Paine	LANL	29,988
Paine	NSF	252,548
Paine	DOE	251,324
Paine	PRF	52,500
Paine	Lawrence Livermore	4,438
Park	Gas Research Institute	176,085
Satterlee	NSF	225,000
Satterlee	DHHS-NIH	597,189
Satterlee	DHHS-NIH	72,205
Satterlee	Alf. P. Sloan Found	750.
Satterlee	DHHS-NIH	259,280
Schaeffer/Paine	Sandia	40,719
Schaeffer/Allen	NSF	369,000
Schaeffer	Searle Scholars Program	157,470
Schaeffer	NSF	369,000
Schaeffer	NSF Presidential Young Invest.	25,000
Schaeffer	PYI	312,500
Tapscott	NIH	113,227
Walters	AFWL-AFSC	34,887
Deck	RAC	2,000
Deck	NSF	150,000
Hollstein	Public Health Svcs	141,869
	TOTAL	$16,734,117

APPENDIX A

Seminar Speakers Fall 1984

Dr. Harold T. Babcock Michigan State Univ. July 19, 1984	"The Proton and Electron Transfer Mechanisms of Cytochrome Oxidase as Studied by Resonance Raman Scattering"
Dr. Al Sattleberger Los Alamos Nat Lab. August 31, 1984	"Low Valent Tantalum and Niobium Chem."
Dr. E. Eiceman New Mex State Univ. Sept. 7, 1984	"Part A. "Ion Mobility Spectrometry in Chemistry" and Part B. "Aspects of Organic Hazardous Wastes in Production and Processing of Natural Gas in N. M."
Dr. Len Interrante General Electric Schnectady, NY Sept. 12, 1984	"Coordination Chemistry Applied to the Generation of Novel Solid State Materials?"
Dr. R. Rye Sandia National Lab. Sept. 21, 1984	"Local Chemical Information in Auger Spectroscopy"
Dr. Linus Pauling Linus Pauling Institute Sept. 28, 1984	"Metals"
Dr. Veit Witzemann Max Planch Institute Gottingen, FRG Oct. 1, 1984	"Acetylcholine Receptor from Torpedo Marmorata and Associated Proteins"
Dr. John A. Panitz Sandia National Lab. Oct. 3, 1984	"Surface Analysis at One Hundred Million Volts Per Centimeter"
Dr. E. M. Eyring University of Utah Oct. 5, 1984	"Photoacoustic Spectroscopy of Conducting Organic Polymers"
Dr. G. Leroi Michigan State Univ. Oct. 12, 1984	"Laser Initiated Photophysics"
Dr. John H. Richards Caltech Oct. 19, 1984	"Synthetic Molecular Biology Structure-Function Relations in Proteins: B-Lactamase"

Dr. G. A. Crosby Washington State Univ. Oct. 23, 1984	"Spectroscopic Assignment of the Excited States of Trans-$(N_2)_2M(Ph_2PCH_2CH_2-CH_2PPh_2)_2$[M=W,Mo]
Dr. T. F. George University of Rochester Oct. 24, 1984	"Laser-Induced Molecular Dynamics and Spectroscopy at Gas-Solid Interfaces"
Dr. Derek A. Davenport Purdue University Oct. 26, 1984	"On the Comparitive Unimportance of the Invective Effect in Physical Organic Chemistry"
Dr. J. W. Mintmire Naval Research Lab. Nov. 2, 1984	"Heteroatom Effects in Heterocyclic Ring Chain Polymers"
Dr. F. Mathey Equipe CNRS-SNPE Thiais, France Nov. 6, 1984	"The Development of Carbene-Like Chemistry of Phosphinidenes"
Dr. J. Ackerman Washington University Nov. 9, 1984	"NMR Spectroscopy of Evolving Metabolism"
Dr. Rauchfuss University of Illinois Nov. 15, 1984	"Recent Developments in the Chemistry of Old Sulfur Ligands: Polysulfides and Thiopyenes"
Dr. William Evans Univiversity of California-Irvine Nov. 16, 1984	"Synthesis and Reactivity of Organometallic Complexes of Yttrium and the Lanthanide Metals"
Dr. Yngve Ohrn University of Utah Nov. 30, 1984	"A New Approach to Molecular Electronic Structure and Spectra"
Dr. James A. Holcombe NSF-Univ of Texas-Austin Dec. 7, 1984	"Graphite Furnace Atomic Absorption: The Analysis of an Analytical Technique"
Dr. William F. Coleman Wellesley College Dec. 11, 1984	"What Goes Up Must Come Down - Non Radiative Processes in Transition Metal Complexes"

Seminar Speakers - Spring 1985

Dr. W. Woodruff Los Alamos Nat. Lab. Jan. 18, 1985	"Resonance Raman Studies of Blue Copper Proteins: Effects of Structure, Temperature, and Isotopic Substitution"
Dr. Paul S. Engel Rice University Jan. 25, 1985	"Unexpected Photoreactions of Reluctant Azoalkanes"
Dr. Marvin Rausch Univ. of Massachusetts Feb. 5, 1985	"Recent Developments in Cyclopentadienyl-Metal Chemistry"
Dr. Mark Ondrias Univ. of New Mexico Feb. 8, 1985	"Resonance Raman Spectroscopy as a Probe of Heme-Protein Dynamics"
Dr. Hrvoje Petek Univ. of Calif-Berkeley Feb. 14, 1985	"Spectroscopy and Dynamics of Singlet Methylene"
Dr. John Grubbs Caltech Feb. 15, 1985	"Titanium-Alkyl and Aldylidene Intermediates in Olefin Polymerization Reactions"
Dr. Peter Bernath University of Arizona Feb. 21, 1985	"Laser and Fourier Transform Spectroscopoy of Transient Molecules: Diatomics to Organometallics"
Dr. J. O. Bockris Texas A&M Feb. 22, 1985	"Photosplitting of Water"
Dr. Shimshan Gotlesfeld Univ. of Tel Aviv/ Los Alamos National Lab March 1, 1985	"Photoluminescence Decay in the Pico-Second Time Domain from Emersed Semiconductors - Study of Photocharge-Transfer Mechanism"
Dr. Jean-Pierre Majoral Universite' Paul Sabatier Toulouse, France March 4, 1985	"Azides of Main Group Elements"
Dr. Martin Jones Univ. of North Dakota March 22, 1985	"Friedel-Crafts Polymerizations of Homo- and Heteraromatic Nuclei"
Dr. Marvin Carmack Indiana University March 27, 1985	"The Phermomes of Mammals - Making Sense of Scents"

Dr. Wm. Bickel Arizona State March 29, 1985	"Information Content in Polarized Light Scattered from Small Irregular Particles"
Dr. Robert Williams UNM Ph.D. Graduate March 29, 1985	"Micraporefilters - Theory and Practice of Design"
Dr. Robert Williams UNM Ph.D. Graduate April 1, 1985	"Carboncations and Boranes"
Dr. Arlan Norman University of Colorado April 12, 1985	"New Chemistry of Amino-Di-Hexaphosphines"
Dr. Dean Peterson Los Alamos National Lab April 18, 1985	"Actinide Thermochemistry"
Dr. Donald Gaines University of Wisconsin April 19, 1985	"The Elucidation of Cluster Rearrangement Mechanism Uing Isotopically Labelled Boron Hydrides"
Dr. Pat Callahan Northwestern Unversity April 25, 1985	"Spectroscopic Studies of the Photosynthetic Light Harvesting Protein from R. Rubrum"
Dr. William F. Brinkman Sandia National Lab April 26, 1985	"The Nature of Blue Phases in Cholesteric Liquid Crystals"
Dr. John D. Corbett Iowa State University May 3, 1985	"The Joy of Discovery: Some Synthetic, Structural and Bonding Results for Metal Halides"
Dr. Carlos Bustamante University of New Mexico May 10, 1985	"Advances in the Optical Activity of Large Chiral Systems"
Dr. Robert West University of Wisconsin May 24, 1985	"The Chemistry of Silicon-Silicon Double Bond"

Sandia Seminar Series

Dr. Ron Loehman Sandia National Lab. October 4, 1985	"Introduction to Glass Science. Part I"
Dr. Ron Loehman Sandia National Lab October 11, 1985	"Introduction to Glass Science. Part II"
Dr. Rod Quinn Sandia National Lab October 18, 1985	"Ceramics and Glass Research at Sandia. An Overview"
Dr. Jeff Brinker Sandia National Lab October 25, 1985	"Sol-Gels"
Dr. Keith Keefer Sandia National Lab November 1, 1985	"Small-Angle X-Ray Scattering"
Dr. Bruce Bunker Sandia National Lab November 8, 1985	"Dissolution of Glasses"
Dr. Tim Gardner Sandia National Lab November 15, 1985	"Powder Processing of Ceramics"
Dr. Bruch Bunker and Dr. Terry Michalske Sandia National Lab November 29, 1985	"Stress-Corrosion of Glasses"
Dr. John Hellman Sandia National Lab December 6, 1985	"Composites"
Dr. Pauline Ho Sandia National Lab January 17, 1985	"Laser Diagnostics using CVD"
Dr. John Ziegler Sandia National Lab January 24, 1985	"Organosilicon Polymers"
Dr. Ruth Whan Sandia National Lab January 31, 1985	"Materials Characterization"

Dr. Tom Headley Sandia National Lab February 7, 1985	"TEM"
Dr. Suzanne Weissman and Dr. Dave Tallant Sandia National Lab February 14, 1985	"Characterization of Glasses using ICP and Raman
Dr. Bob Hughes Sandia National Lab February 21, 1985	"Chemical Microsensors"
Dr. Bob Biefeld Sandia National Lab February 28, 1985	"Preparation and Characterization of Strained Layer Structures
Dr. Don L. Kendall EE Dept. UNM March 7, 1985	"Wet Chemical Micro-Machining of Silicon"
Dr. David Emin Sandia National Lab April 4, 1985	"Boron Rich Borides"
Dr. John Shelnutt Sandia National Lab April 11, 1985	Resonance Raman Studies of Porphyrin Based Photosythotic Systems

APPENDIX B

FACULTY AND STAFF OF THE DEPARTMENT OF CHEMISTRY

FULL PROFESSORS:

CATON, Roy D., Ph.D., 1963, Oregon State University
HOLLSTEIN, Ulrich, Ph.D., 1956, University of Amsterdam
PAINE, Robert T., Ph.D., 1970, University of Michigan
SCHAEFFER, Riley, Ph.D., 1949, University of Illinois
VANDER JAGT, David, Ph.D., 1967, Purdue University

ASSOCIATE PROFESSORS:

ALLEN, Fritz S., Ph.D., 1969, University of Illinois
HOLDER, Richard W., Ph.D., 1970, Yale University
LITCHMAN, William M., Ph.D., 1965, University of Utah
MCLAUGHLIN, Donald R., Ph.D., 1965, University of Utah
MORROW, Cary J., Ph.D., 1970, Tulane University
NIEMCZYK, Thomas M., Ph.D., 1972, Michigan State Univ.
PAPADOPOULOS, E. Paul, Ph.D., 1961, University of Kansas
PARK, Su-Moon, Ph.D., 1975, University of Texas, Austin
SATTERLEE, James D., Ph.D., 1975, Univ. of California-Davis
WALTERS, Edward A., Ph.D., 1966, University of Minnesota

ASSISTANT PROFESSORS:

BUSTAMANTE, Carlos J., Ph.D., 1981, Univ. of Calif.-Berkeley
MAPLE, Jon R., Ph.D., 1980, Northern Illinois University
OGILBY, Peter R., Ph.D., 1981, Univ. of Calif.-Los Angeles
ONDRIAS, Mark R, Ph.D., 1979, Michigan State Univ.
ORTIZ, Joseph V., Ph.D., 1981, Univ. of Florida

INSTRUCTORS:
DECK, Lorraine, M.S., 1968, University of New Mexico
MALM, Miriam, M.S., 1964, University of New Mexico

EMERITUS PROFESSORS:
KAHN, Milton, Ph.D., 1950, Washington University

ADJUNCT PROFESSORS:
ROSENBLATT, Gerd M., Ph.D., 1960, Princeton University
WHALEY, Thomas W., Ph.D., 1971, University of New Mexico

VISITING FACULTY:
BRABSON, George Dana, Ph.D., 1965, Univ. of Calif.-Berkeley
NIMITZ, Jonathan Shelley, Ph.D., 1981, Stanford University
SVEUM, Larry K, Ph.D., 1970, Texas Tech University

Appendix B (Continued)

STAFF SCIENTIST:
DUESLER, Eileen, Ph.D., 1973, Univ. of Calif-Berkeley

CHEMICAL ANALYST:
JU, Ruby K.Y., B.S., 1956, Univ. of Illinois

SCIENTIFIC GLASSBLOWER (AND PART-TIME LECTURER III)
ROENSCH, Arno, B.S., 1953, Highlands Univ.

INSTRUMENTATION TECHNICIAN
HUSHER, Frederick K, B.S.E.E. 1978, Univ. of New Mexico
STENSLAND, Leonard A

OTHER STAFF
GUGLIOTTA, Esther V, Editorial Asst.
HARGIS, Barbara J, Bookkeeper
HILTON, Carl, Storekeeper III
KARICHNER, Wanda, Editorial Asst.
ORTIZ, Leonard, Storekeeper I
OTERO, David , Storekeeper I
RUE, Ruth, Departmental Secretary
SCHNOEBELEN, Albert, Administrative Assistant
WILLIAMS, Beth, Storekeeper I

GRADUATE STUDENTS

		Source
BEACH, D		MBS
BEESON, H	GA	
BIZZARI, N	TA/RA	NIH
BLAHA, S	GA	
BUILES, E	TA	
CARSON, S	RA	NIH
CHANG, P	TA	
CONARY, G	TA	
CONSTANTINIDIS, I	RA	NIH
COOPER, M	TA	
CRAWFORD, B	TA	
DECK, L	GA	
DEWHURST, K.	GA	
DUBOIS, D	RA	ACS
EDEN, G	GA	
ERIDON, J.	TA	
FERNANDEZ, P	TA	
FINDSEN, E	RA	NM/ACS
FINZI, L	RA	NIH
FRAATZ, R	GA	
HILL, R.	GA	

Appendix B (Continued)

HOOD, W	TA	
HORNUNG, S	GA	
HSHEEN, Y	TA	
HUI, E	TA	
IU, K	TA	
IWATA, Y	TA	
JANIK, J	TA/RA	ACS
JIANG, F	GA	
JOHNSON, K	TA	
KIM, M.	RA	NM
KOCH, C	TA	
LEE, H	GA	
LII, F	TA	
LIN, J.	TA	
MAGNUS-ARYITEY, G	TA	
MARIATEGUI, F	RA	ONR
MARTINEZ, D	RA	MBS
MAY, J	TA/RA	NM
MC CABE, D	RA	DOE
MC NAMARA, W	RA	DOE
MENDOZA, P	GA	
MINTOROVITCH, J	RA	NIH
NEWMAN, C	RA/GA	NM
NEWMAN, J	RA	USAF
NUSSER, B	GA	
OVITZ, D	TA	
PACE, C	TA/RA	NM
PALMER, M	GA	
PAULTER, N	GA	
PYUN, C	TA	
RODACY, P	GA	
SANTANDREA, C	TA	
SCURLOCK, R	TA	
SEE, F	RA	SANDIA
SHACKLETT, A	TA/RA	SANDIA
STILWELL, D	TA	
THOMPSON, B	GA	
TIKKANEN, M	GA	
UHLAND, D	GA	
USSERY, D	RA/TA	SANDIA
UTAMAPANYA, S	GA	
VICKERS, M	TA	
WEED, C	TA	
WELLS, S	RA	NM
WILLIAMS, M	GA	
WOOD, G	RA/TA	DOE
YANG, S	TA	
YIN, I	TA	
ZHANG, C	TA	
ZIETZ, P	TA	

APPENDIX C

Applications Received for Graduate Study in Chemistry

1984-1985

State	APP	APR	DIS	INC	DEC	ENR
Alabama	1	1			1	
Arizona	3	2		1	1	1
California	7	5		2	2	3
Colorado	6	4	1	1	2	2
Connecticut	1	1			1	
Delaware	1			1		
Dist. of Columbia	1	1				1
Florida	3	2		1	1	1
Georgia	2			2		
Illinois	3	1		2		1
Indiana	3		2	1		
Iowa	2	1		1	1	
Kentucky	1		1			
Maryland	2	2			2	
Michigan	2	2			1	1
Montana	1	1				1
New Hampshire	1	1			1	
New Mexico	8	4	2	2		4
New York	3	2		1	1	1
North Carolina	1		1			
Ohio	1			1		
Oklahoma	3	2		1		2
Pennsylvania	4	2	2		1	1
Puerto Rico	1	1				1
South Carolina	2	1		1	1	
Texas	5	1	1	3		1
Virginia	1	1			1	
Washington	2		2			
Wyoming	1			1		
TOTALS:						
GRADUATES OF US SCHOOLS:	72	38	12	22	17	21

APP = Applied
APR = Approved
DIS = Disapproved
INC = Incomplete
DEC = Declined our offer
ENR = Students that we anticipate will enroll

Appendix C
(Continued)

Applications Received for Graduate Study in Chemistry

1984-1985

International Student Applications

Country	APP	APR	DIS	INC	DEC	ENR
Algeria	1			1		
Australia	1	1				1
Bangladesh	2		1	1		
Burma	1	1				1
China	8	4	1	3		4
Egypt	2			2		
England	1	1			1	
France	1			1		
Ghana	2	2				2
India	10	1	5	4	1	
Iran	2		1	1		
Iraq	3		1	2		
Ireland	1			1		
Israel	1			1		
Italy	1	1				1
Korea	2			2		
Mexico	1	1				1
Nigeria	1			1		
Peru	1			1		
Philippines	1	1				1
Saudi Arabia	2			2		
Sri Lanka	1			1		
Switzerland	1		1			
Taiwan	12	5	2	5	2	3
Turkey	1	1				1
TOTALS:						
GRADUATES OF FOREIGN SCHOOLS:	60	19	12	29	4	15
GRAND TOTALS:	132	57	24	51	21	36

APP = Applied
APR = Approved
DIS = Disapproved
INC = Incomplete
DEC = Declined our offer
ENR = Students that we anticipate will enroll

DEPARTMENT OF COMMUNICATIVE DISORDERS
ANNUAL REPORT
July 1, 1984 - June 30, 1985
By: Richard B. Hood, Chairperson

A. Significant Achievements

1. Master's Degree Program

a. Accreditation. In February, 1985, a three-person team from the American Speech-Language-Hearing Association (ASHA) performed a site visit for the purpose of evaluating our master's degree programs in speech-language pathology and in audiology. Such a site visit is scheduled every five years for all programs accredited by ASHA. I am happy to report that both programs were re-accredited. Our programs are the only ones accredited by ASHA in the state of New Mexico.

b. Enrollment. The number of graduate students enrolled in each area of emphasis during the past three semesters, were as follows:

	Fall 1984	Spring 1985	Summer 1985
Speech-language pathology	26	23	24
Audiology	5	6	6
Total	31	29	30

c. Employment of Graduates. Seventeen students received master's degrees. Of the 13 who majored in speech-language pathology, 11 are employed by Albuquerque Public Schools, one is employed by a company which contracts for speech-language services with senior citizens, and one is temporarily unemployed because she recently gave birth to her first child. Of the four

who majored in audiology, one is employed by the Los Lunas State Home and Training School, one is employed by the Department of Ear, Nose and Throat in the UNM Medical School Hospital, one works at Sandia Hearing Services in Albuquerque, and one is not employed in the profession.

2. Service

Because all of our graduate students must obtain at least 300 hours of practicum in order to fulfill requirements for the master's degree and for certification by the American Speech-Language-Hearing Association, clinical services are an important mission of our department. In addition, our faculty are active in performing services related to our community. The following sections describe these services.

a. On-campus services by graduate students in speech-language pathology, reported in numbers of hours of service by age category, from June, 1984 through May, 1985. All supervision was provided by UNM faculty.

Number of Hours of Service On-Campus

Type of Service	Preschool	School	Adult	Total
Articulation therapy	327	145	38	510
Language therapy	662	154	455	1271
Voice therapy	9	41	99	149
Stuttering therapy	52	142	28	222
Hearing-impaired therapy	97	53	0	150
Speech-language evals	229	120	91	440
Screenings	4	0	0	4
Complimentary Hear Tests	0	2	91	92
Totals	1380	657	801	2838

b. Off-campus services in speech-language pathology, reported same as above. Supervision of most of these services was provided by professionals not employed by UNM.

Numbers of Hours of Service Off-Campus

Type of Service	Preschool	School	Adult	Total
Articulation therapy	45	253	13	311
Language therapy	151	997	149	1297
Voice therapy	0	102	29	131
Stuttering therapy	0	48	0	48
Hearing-impaired therapy	26	0	0	26
Speech-language evals	87	260	125	472
Screenings	73	43	0	116
Totals	382	1703	316	2401

c. On-campus services in audiology at UNM Hospital, July, 1984 through June, 1985. Approximately two thirds of these services were provided by graduate students under supervision. The remaining services were provided by our audiology supervisor, Jan Lewis, and by the audiologist employed by the Ear, Nose and Throat Department (currently Mary Barker). It is more convenient to report these figures in numbers of patients served, rather than in hours. However, the average time of each patient visit is about one hour (the range is from 15 minutes to two hours), so the total number of patients would be approximately equal the number of hours of service.

Number of Patients Served On-Campus (UNM)

Type of Service Age:	0-6	7-18	Over 18	Total
Audiological evals	343	88	522	953
Middle-ear impedance tests only	198	24	17	239
Auditory brainstem response tests	143	4	5	152
Hearing aid eval	18	2	40	60
Hearing aid follow-up	14	0	14	28
Swim molds and misc.	13	5	2	20
Totals	729	123	600	1452

d. Off-campus services by graduate students in audiology, reported in numbers of hours for each age category, from July, 1984 through June, 1985. Except for hearing screening, all supervision was provided by professionals not employed by UNM.

	Numbers of Hours of Service Off-Campus			
Type of Service	Preschool	School	Adult	Total
Audiological evals	180	161	245	586
Hearing aid evals and aural rehabilitation	16	107	133	256
Hearing screenings	0	65	0	65
Totals	196	333	378	907

In summary, in the past year we have provided approximately 7,600 hours of clinical services in speech-language pathology and audiology. Most of these services were performed by our graduate students. Fifty-six percent of the services were performed in

our facilities and were supervised by our faculty. The remainder of the services were performed in other facilities, most of them in New Mexico, but several hundred hours were in other states, and the graduate students were supervised by professionals in the respective facilities.

e. University and Professional Service

With one exception, these services will not be listed for the "teaching faculty" (Butt, Hood, Lamb, Riensche, Shirkey, and Wilcox) because they can be found in the annual biographical supplements. The exception that is worthy of including in this report is a major (two days) workshop conducted by Dolores Butt on Electronic Aids for the Handicapped, in May 1985. There were 90 participants, most of these speech-language pathologists, physical therapists, or occupational therapists.

Our "professional staff," or supervisory faculty (Bolton, Elledge, Greenbaum, Lewis and Williams) are also very service-oriented. The two who are the most active are Mary Bolton and Judy Williams.

1) Mary Bolton has conducted 11 workshops on speech therapy for Head Start teachers and aides throughout New Mexico in the last three years, and will continue this consultancy. She is also one of the two elected Legislative Councilors from New Mexico for the American Speech-Language-Hearing Association.

2) Judy Williams was elected President of the Board of Regents of the New Mexico School for the Deaf in 1985, having been first appointed to the Board by Governor Anaya in 1983. As immediate past-president of the New Mexico Speech, Language, and Hearing Association, she is serving on its Executive Council.

She is also a member of the Advisory Committee on UNM's Women's Studies Program.

3. Special Projects and Improvements in the Master's Program

a. The interdisciplinary effort between the Department of Special Education and our department (described in last year's report) to prepare classroom teachers of communicatively disordered children was started in the Fall of 1984. Approximately 15 students have started to work on this teaching credential by taking Dolores Butt's courses, Development of Speech and Language, and Language Disorders in Children. In addition, we instituted a new course, Com Ds 582, Teaching Communicatively Disordered Children, in the summer of 1985, which was taught by Dr. Butt and Ann Marquis (APS speech-language pathologist assigned to the Dept. of Special Education), and which was taken by 15 students.

b. Dolores Butt has made substantial progress on her non-oral communication program, in cooperation with APS. She has established a laboratory in our department for the assessment of the efficiency of various instruments to be used by children and adults who are unable to speak due to such causes as cerebral palsy, head injury, stroke, head and neck cancer, and diseases of the central nervous system. Because of limited staff and faculty time, she has confined her services to only the most severe cases. She is currently providing therapy to a three year-old boy who became speechless after a severe illness. He is gradually learning to speak again with the assistance of computerized programs.

c. Dispensing of hearing aids was started in the audiology clinic in the spring, 1985. As mentioned in last

year's report's plans for the future, this will enable our graduate students to gain this experience, which is a rapidly growing and integral part of the profession of audiology.

4. Undergraduate Program in Communicative Disorders

a. Enrollment. The spring 1985 majors listing includes 51 students in this major, but we know that there are more who have not officially declared us a major.

b. Curriculum changes

1) Com Ds 435, Processes of Phonation, was deleted.

2) Com Ds 436, Stuttering and Com Ds 437, Stuttering Laboratory were changed to a graduate level course, Com Ds 538.

3) Com Ds 325, Processes of Articulation, and the accompanying lab (326) were deleted.

4) Com Ds 360, Speech Disorders, and Com Ds 460, Speech Sound Disorders in Children, were added.

5) Com Ds 451, Aphasia and Related Disorders, was changed to a graduate level course, Com Ds 507.

5. Undergraduate Program in Sign Language Interpreting

I am especially proud of our Sign Language Interpreting Program, which has been in existence only two years, and is one of only five or six bachelor's degree programs of its kind in the country. Mainly due to the efforts of its originator, Phyllis Wilcox, it has already achieved national prominence. Mrs. Wilcox has been invited to present many papers about the program at national conferences. One of the majors, Sue Bottomly, recently

placed first in a national scholarship competition sponsored by the Registry of Interpreters for the Deaf. The current 17 majors are a group of bright, dedicated, and enthusiastic students. There are nine more majors starting next fall, out of over 50 applicants. As far as I know, this is the only undergraduate major in the university which is so selective in accepting students as majors.

Mrs. Wilcox has been assisted by Jeff Davis, temporary half-time instructor, who has taught two courses per semester and has assisted in other ways. He has more than earned his small salary. He is on our budget for half-time for the next academic year. She has also been assisted by Irma Correa-Chavira, who has worked half-time this year in the program, teaching and developing curriculum. Unfortunately, her challenge assistantship ended in May. We will miss her and her valuable contributions. By losing her, the program is especially in need of another instructor or assistant professor.

6. Other achievements

a. In September, 1984 I had the job titles and descriptions of our professional staff changed to more appropriate and accurate terminology. Whereas they were formerly all Speech Therapist I or II, now there are positions for Speech-Language Pathologist I - IV and Audiologist I - IV. I also obtained a new job description for Director of Clinical Services in Speech-Language Pathology.

b. Promotions

1) On July 1, 1984, Linda Riensche was awarded

tenure and was promoted to Associate Professor.

2) On July 1, 1984, Mary Bolton was promoted from Grade 16 to Grade 20, Director of Clinical Services in Speech-Language Pathology (officially called Program Manager in Personnel's records).

3) In August, 1984, Florence Gonzales was promoted from Department Secretary (Grade 5) to Staff Assistant (Grade 8).

4) In January, 1985, Judy Williams, was promoted from Speech-Language Pathologist II to III (Grade 16 to Grade 18).

B. Significant Plans and Recommendations for the Future

1. Plans. Overall, the planned improvements in the department, and the implementation of the Sign Language Interpreting major, have been accomplished. Our general goals are as follows:

a. To continue to provide high quality education, including clinical practicum, for our graduate students. Other reports to Arts and Sciences and to President Farer have pointed out that we are the primary training institution in speech-language pathology and audiology in the state, and the only one accredited by ASHA. New Mexico has approximately 50 vacant positions for these professionals, and it is incumbent on us to help fill this need with well-trained personnel.

However, we are currently in a crisis situation in the master's degree program in speech-language pathology, which is the single, most important and time-consuming component of our department. For many years, we have had a grant from the U.S.

Department of Education (recently for $71,000 per year) which has paid the salaries of 2.2 supervisors and one secretary. As of June 1, 1985, that grant was terminated and the application to continue that funding was approved but not funded. The College of Arts and Sciences has almost miraculously managed to provide salaries for 1.2 of the supervisors temporarily for the next year, but we are without the services of one full-time supervisor and one full-time secretary. The immediate result is that we will have to reduce the number of graduate students in the spring of 1986 by four or five from the usual number; and if no funding is obtained by fall, 1985, the graduate program in speech-language pathology will be in jeopardy. Obviously our plans are to try to obtain funding from the university, from new grants, or from contributions.

b. To increase the number of undergraduate majors in Communicative Disorders and in Sign Language Interpreting.

c. To increase research productivity. I am optimistic that this will occur, partly due to our recent committment that professional staff (supervisors) will spend one-half day per week in research activities. Of course other faculty members spend more than one-tenth of their time on research.

d. To be relocated to the main campus. As stated last year and in other reports, it would be advantageous for us to be relocated on the main campus. Our efficiency would be increased, our interdisciplinary relationships with other departments would be strengthened, and our research space might be increased. Currently it seems possible that such a relocation might occur, as we are included in the temporary planning of the proposed new Communications Building.

e. To be active in the planning of a new major in early childhood at UNM. Dolores Butt will be our representative on the planning committee.

2. Recommendations

a. That funding be appropriated for a full-time assistant professor to replace the half-time instructor in the Sign Language Interpreting major.

b. That funding be appropriated, on a gradual basis, for 2.2 supervisors and one secretary, from the UNM budget. This assumes that our department will be successful in obtaining grant money to pay most of those salaries the first year, with decreasing amounts in succeeding years.

c. That our department continue to be included in the plans for the proposed new Communications Building.

C. Appointments to Staff

1. Marci Greenbaum, M.S., as Speech-Language Pathologist II (supervisor), on March 1, 1985.

2. Anna Ontiveros as half-time secretary, on 12-3-84.

D. Separations from Staff

1. Judi Barnes, M.S., as Speech-Language Pathologist II (supervisor) on January 15, 1985, to start a private practice.

2. Mercy Salazar, as half-time staff secretary, on 5-23-84.

3. Wayne Swisher, Ph.D., half-time associate professor, on May 29, 1985 to become Chairperson, Dept. Communicative Disorders, North Dakota State University. Dr. Swisher's courses will be taught by Dr. Bruce Porch, part-time faculty member in our department since 1968, and by Dr. William Ryan, Chief of Speech Pathology and Audiology, Veterans Administration Medical Center, Albuquerque.

4. Carolyn Cosentino, as secretary, on June 30, 1985, because of expiration of U.S. Department of Education grant.

E. Sponsored Projects

Richard Hood and Phyllis Wilcox submitted grant applications to U.S. Department of Education, Division of Personnel Preparation. Neither was approved for funding.

Department of Economics Annual Report

July 1, 1984 - June 30 1985

Alfred L. Parker, Chairman

A. Significant Achievements During the Academic Year

There are a number of areas in which the Department of Economics has achieved results that are worthy of note.

1. Research Money Generated - Support for Graduate Students

As stressed in this Department's Annual Report in each of the last four academic years, the department of economics experienced a significant decline in sponsored research as result of the cuts in research funds available to the social sciences from NSF, DOE, EPA and others. Last year and again during 1984-85 academic year members of the economics faculty made an effort to increase the dollar amount of sponsored research generated by this department.

Table 1 provides a clear picture of the decline in sponsored research monies generated and the modest, but significant, recovery that has been achieved by the department.

The release time money generated by sponsored research has been and continues to be an important source of financial support for graduate students in our graduate programs. As indicated in Table 2 the decline in sponsored research resulted in a substantial reduction in the number of graduate students receiving financial support. The department has struggled but has been able to maintain a level of support beyond that made possible by budgeted TA positions.

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Table 1 -- UNM Department of Economics

Sponsored Research Money

Academic Year	
1979-80	$1,371,552
1980-81	997,210
1981-82	194,826
1982-83	57,591
1983-84	103,533
1984-85	522,298

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Table 2 -- Financial Support to Graduate Students

Academic Year	Regular TAs	Special TAs	RAs	Scholarships	Total
1980-81	7	8	16	1	32
1981-82	7	8	16	1	32
1982-83	7	6	7	1	21
1983-84	7	7	6	2	22
1984-85	7	7	1	2	17
1985-86	8	7	1	1	17

The reduction in the number of graduate students receiving financial support has resulted in a decline in the size of graduate enrollment and some deterioration in the quality of graduate students in our graduate program. As a direct result of the level of financial support available for economics graduate students, the number of Ph.D. students has delined. Although we continue to get applications from students with strong academic records our inability to respond in a positive manner to these students in a timely fashion has made it impossible to attract the quality of students and the numbers required for a high quality Ph.D. program.

2. Reorganization of Fields

Recognizing the changes in our graduate student population the Department of Economics has undertaken a significant reorganization of the econometrics and applied resource economics fields. The reorganization of these fields have been designed to better meet the needs of masters level students who would be seeking employment in government, public utilities and industry. Master's level students completing the new econometrics sequence will have the background necessary to apply basic econometrics to a variety of economic uses. Master's level students completing the new resource economics sequence will have a strong background in applied resource economics and be in a position to deal effectively with a wide a range environmental and resource related issues. The Ph.D. level courses in the econometrics and resource economics fields have been retained as a part of the department's curriculum, however, it is anticipated that these courses will be offered less often given the current level of Ph.D. student enrollment.

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3. A Micro-Computer Lab

With the help of the UNM Computing Center a new micro-computer lab is now being constructed in a classroom in the Economics-Sociology Building (1915 Roma N.E.) for use by statistics and econometrics classes. The availability of this new facility will make it possible for the economics faculty to provide undergraduate and graduate students with experience on IBM compatiable PCs. The department feels strongly that this experience is an essential part of both undergraduate and graduate education for economics students. While the development of classroom materials and/or the adaptation of existing materials for use in the new facility will require a considerable effort on the part of economics faculty responsible for teaching the introductory statistics and econometrics courses, we believe that it will be of significant benefit to our students.

4. The Economics Student Council

The Economics Student Council (ESC) continues to develop and expand its programs for undergraduate students. It is the major objective of the ESC to provide the undergraduate students with an opportunity to learn more about employment opportunities for economics majors. The guest speaker program initiated in 1983 under the sponsorship of ESC has continued to expand and attract greater student participation and present speakers from a wide range of industries within the state. Guest speakers appearing as part of this program during the 1984-85 academic included:

Mr. Gig Brummell, Dean Witter Reynolds Inc.,
Mr. Bob Blagg, Equitable Life Insurance Company,
Ms. Leslie Neil, Training Supervisor, Sunwest Bank,
Mr. Bruce Williamson, Graduate Student, Department of Economics, UNM,
Mr. Bill McClintock, and McClintock Paper Company Incorporated.

B. Significant Plans and Recommendations

1. The Appointment of Undergraduate and Graduate Coordinators.

The Economics Department Chairman is currently in the process of identifying members of the economics faculty who will serve as the undergraduate coordinator and the graduate coordinator for this department during 1985-86 academic year.

It will be the responsiblity of the faculty members accepting these positions to carry out many of the tasks and accept many of the responsibilities currently handled by the department chairman. In the case of the Undergraduate Coordinator these duties and responsibilities will include but will not necessarily be limited to the following:

1. Recruitment of economics majors and minors;
2. Advisement of undergraduate students;
3. Development of the undergraduate class schedule;
4. Sponsor the Economics Student Council;
5. Development of brochures and other materials describing the UNM undergraduate program in economics;
6. Curriculum development activities within the undergraduate program;
7. The development of student recognition programs.

The faculty member serving as the Graduate Coordinator will have duties and responsibilites relating to the operation of the department's graduate programs including but not necessarily limited to the following:

1. The recruitment of graduate students;
2. Correspondence with applicants for the graduate programs;
3. Recommendations concerning awarding of financial support to graduate students;
4. Advisement of graduate students;
5. Sponsor of ODE (graduate student organization);
6. Development of the graduate class schedule;

7. Curriculum development within the graduate program;
8. Development of graduate student recognition programs;
9. Development of job placement program for economics graduate students;
10. Department representative on the Arts and Sciences College graduate committee.

It is anticipated that the faculty members accepting these two new positions will receive one-third release time each semester in order for them to carry out the responsibilities associated with each position.

The creation of these two new administrative positions within the department will make it possible for the department chairman to direct his attention to the development of Alumni relations, the development of a quality seminar program, and the development of financial support for department programs from outside the university.

2. Enrollment in Upper Division Classes.

High enrollment in a number of upper division economics classes continues to be a serious problem in the undergraduate economics program. During the 1984-85 academic year there were 12 sections of upper division classes with enrollments ranging from 50 to 130 students. All but one of these sections were in classes that must be labeled "core" courses, Econ 300, Intermediate Micro Theory and Econ 315, Money and Banking. During the 1984-85 academic year the following enrollments were experienced in upper division economics courses:

Fall 1984

Econ 300.001	Intermediate Micro Theory	61 Students (Sass)
Econ 300.004	Intermediate Micro Theory	53 Students (Goodwin)
Econ 300.005	Intermediate Micro Theory	59 Students (Brajer)

(Fall 1984 - continued)

Econ 315.001	Money and Banking	138 Students (Parker)
Econ 315.002	Money and Banking	92 Students (Chung)
Econ 330.001	Consumer Economics	50 Students (Hamilton)
Econ 350.001	Public Finance	65 Students (Boyle)

Spring 1985

Econ 300.003	Intermediate Micro Theory	53 Students (Oslund)
Econ 300.004	Intermediate Micro Theory	50 Students (Goodwin)
Econ 315.001	Money and Banking	86 Students (Chung)
Econ 315.002	Money and Banking	64 Students (Parker)
Econ 315.003	Money and Banking	66 Students (Chung)

Classes of the size listed above do not provide the undergraduate student with a classroom environment appropriate for the material developed in these classes. Accordingly, the Economics Department must continue to make every effort possible to increase the number of sections made available each semester for these courses in order to ensure that students are placed in an appropriate learning environment.

3. Finance Courses for Economics Undergraduate and Graduate Courses.

A number of economics undergraduate and graduate students continue to express interest in taking courses in finance. The Anderson Schools of Management has refused to cooperate in any way to make it possible for economics students to take courses appropriate for their field of study. Given the prerequisites currently placed on undergraduate and graduate finance courses, the Department of Economics appears to have no choice but to begin to develop its own finance courses.

As a first step in this direction the department has added to its staff Ms. Lynne Conrad who has extensive training in finance and an interest in teaching and developing courses in finance. It is our intention at this time to introduce a first finance course for economics undergraduate students and graduate students perhaps as early as the spring of 1986.

4. Economics Department Faculty - A Period of Transition.

For more than a decade the faculty of the UNM Department of Economics has been a very senior faculty. For more than 15 years there has been no period in which there was more than two assistant professors on staff while 85 to 90 percent of the faculty were at the full professor rank (or very senior associate professors). In the fall semester 1985 the economics department will have five assistant professors as members of its faculty. This appears to be just the beginning of a period of transition in which senior members of faculty will be retiring and will be replaced by perhaps, for the most part, junior faculty. During this period of transition the department must accept the responsibility for insuring that the new faculty maintain within the department a proper balance of both conservative and liberal views on economic issues, and cover the fields essential for a quality undergraduate and graduate program. It may be important to consider hiring at the associate and/or full professor rank in order to best meet the needs of the department as members of our senior faculty move into retirement.

C. Appointments to Staff

Three new Ph.D.s will be joining the economics faculty in August of 1985. The three new faculty members are listed below along with their research and teaching interests.

Ms. Christine Sauer
Ph.D. (expected September 1985), Brown University
Fields: International Trade and Finance
Econometrics
Aggregrate Economic Growth
Welfare Economics

Mr. Raymond Sauer, Jr. (no relation to Ms. Sauer)
Ph.D. (expected August 1985), University of Washington
Fields: Macroeconomics
Microeconomics
Industrial Organization

Ms. Lynne Conrad
Ph.D. (expected August 1985), Texas A & M University
Fields: Monetary Economics
Labor Economics
Mathematical Economics
Financial Economics

We are confident that these three new Ph.D.s will be excellent additions to our faculty.

D. Separation from Staff

Professor Sanford Cohen has retired effective June 30, 1985 after a long and distinguished career. During his tenure at the University of New Mexico Professor Cohen served as director ISRAD and Chairman of the Department of Economics during the early 1970s. He has been an active researcher and an excellent teacher in the labor economics field while a member of the faculty of this university. He has also been active in labor arbitration work and expects to continue his labor arbitration consultation after retirement.

Miss Patricia Oslund (ABD, University of Kansas) has resigned after three years as a lecturer in the Department of Economics. Miss Oslund plans to pursue employment opportunities outside of the academic world.

E. Sponsored Research or Other Projects

Eight (8) of the department's nineteen (19) full time faculty were involved in submitting project proposals to outside agencies for funding

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during 1984-85 academic year. This represents approximately 33% of the faculty of this department seeking funds for sponsored research.

Five (5) of the eight (8) proposals submitted to outside agencies were successful in obtaining awards. A listing of the projects funded during 1984-85 academic year and the dollar amount of their budgets is provided in Table 3.

F. The Economics Graduate Programs -- A status Report

Graduate enrollment in the Department of Economics has been declining over the past three academic years as a direct result of the decline in the financial support available for graduate students. As shown in Table 4 the average enrollment for the two semesters of the 1984-85 academic year was approximately 80% of the enrollment level during the 1981-82 academic year and approximately 70% of the 1975-76 academic year enrollment.

The decline in graduate enrollment is not yet reflected in the number of graduate degrees awarded by the Department of Economics. As shown in Table 5 the department awarded five Ph.D.s and one master's degree during 1984-85 academic year, this is approximately the same total number of graduate degrees awarded by the department during the preceding three academic years.

Table 6 has been prepared to provide an indication of the type of position that has been obtained by master's and Ph.D. students receiving degrees from this department. As indicated in this Table, Ph.D. students have been placed in quality academic programs, Oklahoma State University, Illinois State University, Holbart & William Smith Colleges, Purdue University and a number of government agencies, U.S. Department of Commerce and the City of Albuquerque and also in private industry, Citicorp and Gas Company of New Mexico.

Table 3 -- Funded Research Projects, 1984-85

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Land and Water Use Planning in State Lands	State Commission of Public Lands	$175,000	Cummings
State Appropriations of Unappropriated Ground Water in New Mexico	New Mexico Water Resources Research Institute	$134,438	Cummings
Contract Assistance in the Development of Water and Environmental Research Programs for John Muir Institute	John Muir Institute	$ 68,260	Brown
Contract Assistance in the Development of Water and Environmental Research Programs for John Muir Institute	John Muir Institute	$ 78,600	Brown
Projecting New Mexico's Electricity Demand	New Mexico Public Service Commission	$ 66,000	Parker
		$522,298	

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Table 4 -- UNM Department of Economics

Graduate Enrollment

Academic Year	Graduate Enrollment Fall Semester	Spring Semester
1974-75	50	51
1975-76	62	59
1976-77	49	42
1977-78	35	37
1978-79	37	41
1979-80	50	51
1980-81	54	53
1981-82	59	51
1982-83	53	48
1983-84	46	42
1984-85	46	40

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Table 5 -- Received Degrees Awarded by the UNM Department of Economics

Academic Year	Economics Majors	Economics Minors	Masters Degree	Ph.D. Degree
1980-81	45	12	6	3
1981-82	42	13	5	1
1982-83	59	16	4	3
1983-84	32	6	5	1
1984-85	47	1	1	5

Table 6 -- Employment of UNM 810

Economics Graduate Students

Received Graduate Degree from UNM

	Name	Current Position
1982-83	Melva R. Sharp (M.A.)	(Unknown)
	Jacques B. Blair (Ph.D.)	Gas Company of New Mexico, Albuquerque, NM
	Shirley S. Wozniak (M.A.)	Senior Planner, City of Albuquerque, Planning Division, Albuquerque, NM
	Keith Willett (Ph.D.)	Oklahoma State University Stillwater, OK
1983-84	Dean Latona (M.A.)	Military Service
	Douglas Kidd (M.A.)	Citicorp (Financial Analysist) Denver, CO
	Victor Brajer (Ph.D.)	Lecturer, ASM, UNM
	Rafael Celis (M.A.)	Ph.D. Program, UNM
	Philip Farah (M.A.)	Ph.D. Program, UNM
1984-85	Jeff Repichowski (M.A.)	(Unknown)
	Mark Walbert (Ph.D.)	Illinois State University Normal, IL
	Bill Waller (Ph.D.)	Holbart & William Smith College Geneva, NY
	Gretchen B. Berger (Ph.D.)	College of Santa Fe Santa Fe, NM
	Bob Patrick (Ph.D.)	Purdue University West Lafayette, IN
	Nick Stergioulas (Ph.D.)	U.S. Department of Commerce Bureau of Economic Analysis Washington, D.C.

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Although we believe that the employment record shown in Table 6 is a good one, we are convinced that given the current market that additional assistance should be provided. Accordingly, the department is planning to develop and implement during the fall semester of 1985 a program designed to assist economics graduate students in finding appropriate, rewarding employment in their chosen profession.

Composite of Information Requested on Individual Biographical Supplements

1. Advanced study.

Oslund, Patricia C.	Ph.D. Dissertation work: Disequilibrium Macroeconomic Models
Sass, Timothy R.	Ph.D. in Economics, University of Washington, August 1984.

2. Sabbaticals, leaves of absence, summer teaching elsewhere, travel, etc., during the period.

Ben-David, Shaul	Sabbatical/Research Fellow, East-West Center, Honolulu, Hawaii, Spring/Summer 1984.
Burness, H. Stuart	Sabbatical Leave, Fall 1984.
Cohen, Sanford	Sabbatical Leave, Spring 1984.
Cummings, Ronald G.	Mexico (Saltillo), Summer 1984 and Cairo, Egypt 12/27/84 - 1/5/85: Advisor to United Nations projects involving the use of plastics in agriculture.
Gisser, Micha	Sabbatical Leave, Fall 1984.
Gregory, Peter	Sabbatical Leave, Fall 1984. Travel to Mexico on research project.
Tailby, Donald G.	Summer 1984. Travels in England, Scotland.

3. New scholastic honors, fellowships, etc.

None.

4. Publications during the period

Ben-David, Shaul, Professor

New Mexico Energy Management Information System, New Mexico Energy Research and Development Institute, NMERDI 2-68-1103, Principal Investigator: Brian McDonald, March 1984 (with contributors Michael Byrnes, Rodrigo Lievano, and F. Lee Brown).

4. Publications (continued)

"The Sixty-City Limit," in Environmental Decision-Making, Vol. 2, Chapter 5, Eds. Yusuf J. Ahmad, Partha Dasgupta and Karl-Goran Maler, Hodder and Stougton Educational: Great Britain 1984 (with Thomas D. Crocker, William Schulze, and Allen V. Kneese), pp. 114-161.

Brown, F. Lee, Professor

"Water Rights and Market Transfers," with Charles T. DuMars in Water Scarcity, Impacts on Western Agriculture, University of California Press, Berkeley, 1984.

"The Role of Water in Energy Development," with David Abbey and Fred Roach in Paradoxes of Western Energy Development, Westview Press, Inc., Boulder, 1984.

Burness, H. Stuart, Professor

Scale Economics and Reliability in the Electric Utility Industry, Energy Journal, 1984.

Chung, Pham, Professor

"Modeling Growing Economies in Equilibrium and Disequilibrium," (review article), Journal of Economics, 1984.

Church, Albert M., Professor

Monetary Public Objectives for Natural Resource Tax Policy, Australian National University, forthcoming.

Two chapters in Tribal Tax Administration Manual - Keystone Center. "The Incidence of Natural Resource Revenues: Who Benefits and Who Pay" in Public Land Law Review.

"Local Choice: Selection and Effects of the Property Tax," in Proceedings of 7th International Symposium.

"Tribal Governments' Management of Tax Policy," American Indian Law Newsletter.

Cummings, Ronald G., Professor

Interstate Allocation and Management of Non-tributary Groundwater (with K. J. Burke and J. C. Mays), Western Governors Association, Denver, May, 1984 (168 pp).

4. Publications (continued)

"The States' Role in Managing and Conserving Groundwater: The Case for Establishing State Proprietary Interests in State Resources," (with C. Dollars, et.al.), Proceedings, Western States Water Council, Water Management Symposium, Salt Lake City, September 13-14, 1984.

"General Methods for Benefit Assessment," Chapter 6 in Benefit Assessments: The State of the Arts, Arthur D. Little, Inc., Acorn Park, MA, September 1984.

"Scale Economies and Reliability in the Electric Power Industry," (with Burness and Loose), Energy Journal, accerted for Publication.

Valuing Public Goods: An Assessment of the Contingent Valuation Method, (with D. Brookshire and W. Schulze), presently negotiating publications contract with Rowman and Allanheld.

"Institutional Inpediments to Urban Water Management: A Case Study of Albuquerque, N.M.," (with F. Lee Brown, et.al.), chapter in K. Frederricks (ed), Water Management Problems in the West, forthcoming from Johns Hopkins Press, Baltimore.

"A Model Treaty for Managing Transboundary Groundwater Resources," (with the Iztapa Study Group), forthcoming, Natural Resources Journal.

"Report of the State Water Law Study Committee," Institute of Public Law, UNM, January, 1984.

Gisser, Micha, Professor

"Competition vs. Optimal Control in Groundwater Pumping When Demand is Nonlinear," with Richard C. Allen, Water Resources Research, Vol. 20, July 1984.

"Price Leadership and Dynamic Aspects of Oligopoly in U.S. Manufacturing," Journal of Political Economy, Vol. 92, December 1984.

Gregory, Peter, Professor

"The Labor Market in Mexico, 1940-80," Comparative Development Perspectives, Gustav Ranis, et.al., eds. (Boulder: Westview Press 1984), pp. 245-79.

Economic Development and Employment in Mexico (Baltimore: Johns Hopkins Press, forthcoming).

4. Publications (continued)

Hamilton, David, Professor

"The Myth Is Not the Reality," published in Journal of Economic Issues, March 1984; also published as a chapter in Marc Tool AN INSTITUTIONALIST GUIDE TO ECONOMICS AND PUBLIC POLICY, (Mrmonk, N.Y.; M.E. Sharpe, Inc. 1984).

"Economics: Science or Legend", Journal of Economic Issues, June 1984.

Review of Roger S. Mason, CONSPICUOUS CONSUMPTION: A STUDY OF EXCEPTIONAL CONSUMER BEHAVIOR, Journal of Economic Issues, September 1984.

Review of Harrell R. Rogers, THE COST OF HUMAN NEGLECT, Journal of Economic Issues, September 1984.

Review of Jay Weinstein, SOCIOLOGY/TECHNOLOGY: FOUNDATIONS OF POSTACADEMIC SOCIAL SCIENCE, in The Social Science Quarterly, September 1984.

Jonas, Paul, Professor

A chapter in THE FIRST WAR BETWEEN SOCIALIST STATES (1984), "The Long Term Effects of the Revolution in Hungary," Paul Jonas, Editor Columbia University Press.

Norton, Roger D., Professor

"Nutritional Relationships in Farm Models," (with D. Salcedo), accepted for publication in the European Review of Agricultural Economics.

"A Note on Prudencio's Experimental Tests of the Coase Proposition," (with R.H. Patrick), accepted for publication in Journal of Environmental Economics and Management.

5. Other research projects or creative work in progess or completed during the period.

Ben-David, Shaul, Professor

Principal Investigator, The International Federation of Institutes for Advanced Study and the East-West Center, "Utilizations of Coastal Waters: The Strait of Malacca."

5. Other research projects (continued)

Boyle, Gerald, Professor

Completed work on the Economics of the sign ordinance for the City of Albuquerque ($4,500).

Gave 5 workshop/lectures to the staff of the State Budget Office in the budger Process ($2,500).

Brown, F. Lee, Professor

John Muir Institute, $68,260, Contract Assistance in the Development of Water and Environmental Research Programs for John Muir Institute, August 1, 1984 to July 31, 1985.

New Mexico Legislature, $134,438, Joint Proposal of the New Mexico Water Resources Research Institute of Public Law to Study the Feasibility of State Appropriation of the Unappropriated Groundwater in New Mexico, August 13, 1984 to January 31, 1986.

Burness, Stuart. H., Professor

Methods for Assessing Economic Returns from State Supported Research. (NMERDI)

Options for Non-Federal Private Funding of Water Projects. (WESPO)

Chung, Pham, Professor

"Environmental Imporvement Costs, the CPI, the Distribution of Income and Economic Growth."

"On Indexation and Stock Adjustment Dynamics."

"On Economic Policy Evaluation and Rational Expectations."

Chruch, Albert M., Professor

Boon on Investment and computer software in review.

Cohen, Sanford, Professor

In Progress - "Discharge Practice in the Work Place."

5. Other research projects (continued)

Cummings, Ronald G., Professor

State Water Law Study Committee. $100,000 funding from New Mexico State Legislature through the Institute of Public Law, UNM. Completed February 1984.

State Groundwater Appropriation Study. $200,000 Funding from State Legislature started June 1, 1984 for 1.5 years.

State Land and Water Use Planning. Principal Investigator. Funding of $175,000 from State Land Commissioners Office.

Goodwin, Thomas, Professor

Outside sponsored research: New Mexico Public Service Commission. Amount of Grant: $66,000. Title of Project: Projecting New Mexico's Electricity Demand; July 1, 1984 to March 31, 1985.

Gregory, Peter, Professor

An Evaluation of Government Policies Affecting Employment Levels and Conditions in Latin America. Sponsor - U.S. Agency for International Development. October 1984 to March 1985.

The Rural Labor Market in Mexico. Sponsor: The World Bank. October 1984 to December 1985.

Jonas, Paul, Professor

THE LIMITS OF REFORM IN EAST CENTRAL EUROPE, Paper to be presented in Sarasota at the conference on East Central Europe, University of South Florida.

"Kossuth's Maritime Policies," Paper to be presented in Thessaloniki (Greece), Balkan Institute of Greece. Papers will be published.

Norton, Roger D., Professor

A projectons model for U.S. - Mexico trade in agriculture, sponsored by Stanford University.

Oslund, Patricia C., Lecturer II

"Tariffs and Income Distribution," (draft of paper) written with Dr. Roger Norton. The paper was presented at the Mexico - U.S. Workshop on Agricultural Trade, August 1983.

5. Other research projects (continued)

Parker, Alfred L., Professor and Chairman

Principal Investigator, "Projecting New Mexico's Electricity Demand," sponsored by the New Mexico Public Service Commission, $66,000. Six months (on going).

Principal Investigator, "Legislature Finance Committee -- Economic Advisor," submitted jointly with NMSU, Department of Agricultural Economics, $36,600. (not funded).

"Coal Markets -- Institutional and Public Policy Aspects," submitted to the Office of Coal and Electricity Policy; $125,000. (pending).

"The Combination Gas - Electric Utility -- Performance Issues and Answers," prepared for the New Mexico Public Service Commission, March 1984.

"PNM Acquisition of GASCO -- Identifying the Issues," prepared for the New Mexico Public Service Commission Staff, November 1984.

Therkildsen, Paul, Professor

Final Report of the Citizens' Tax Study Committee oppointed by Governor Toney Anaya.

Chairman of the Sub-Committee on the New Mexico Severance Taxes.

6. Activities in learned and professional societies

Ben-David, Shaul, Professor

"Utilization of Coastal Waters: The Malacca Strait," paper presented at the Workshop on Marine Economics, East-West Center, Honolulu, Hawaii, April 1984.

Chung, Pham, Professor

Delivered paper entitled: "Econometric Policy Evaluations and Rational Expectations: Professor Lucas Seem to Want it Both Ways," at the annual conference of MVEA, Kansas City, Missouri, 1984.

Church, Albert M., Professor

Vice President, Western Tax Association, June 20-23, Las Vegas.

Paper - 7th International Symposium on the Property Tax Paper, Vienna, May 1984.

Paper - Conference on Fiscal Federalism and the Patchwork Quilt of Natural Resource Revenues - Missoula, May 1984.

6. Activities in learned and professional societies (continued)

Cohen, Sanford, Professor

Attended Meetings of National Academy of Arbitrators, Industrial Relations Research Association, American Economic Association.

Cummings, Ronald G., Professor

Post-President, Association of Environmental and Resource Economists; member Executive Committee, Hydrology section, American Geophysical Union.

Editor, Water Resources Research.

Member, Editorial Board:
Land Economics

Natural Resources Journal

Southwest Journal of Business and Economics

Papers read at professional meetings:
"State of the Art of the Contingent Valuation Method," Conference on Public Goods Valuation, Palo Alto, California, July 2, 1984.

"Interstate Compacts and Conflict Resolution," Meetings of the Western Governors Policy Office, Phoenix, February 20, 1984.

"The States Role in Managing and Conserving Groundwater: The Case for Establishing State Proprietary Interests in State Resources," Western States Water Council, Water Management Symposium, Salt Lake City, September 13-14, 1984.

"Settings Priorities for Western Water Resources," (W./T. Bahr), 20th Annual Conference of the American Water Resources Association, Washington, D.C., August 12-17, 1984.

Other meetings attended:
Anticipating Western Water Needs, Southen Methodist University, Dallas, April 4-6, 1984.

"Water Law in the West," WRRI, Las Cruces, April 26-27, 1984.

Annual meetings of the American Association of Agricultural Economists, Ithica, N.Y., August 6-8, 1984.

Bi-Annual Meetings of the American Geophysical Union, San Francisco, December 2-5, 1984.

Goodwin, Thomas, Professor

Attended Allied Social Sciences Association meetings, Dallas, Texas, December 28-30, 1984.

6. Activities in learned and professional societies (continued)

Hamilton, David, Professor

On the editoral board of the Journal of Economic Issues.

Read paper: Western Social Science Association meeting at San Diego, April 1984.

Read short paper: "Economics of Wendell Gordon," at American Economics Association meetings in Dallas, (AFEE) at presentation of Veblen/Commons award to Wendell Gordon.

Norton, Roger D., Professor

"A Model of Structural Adjustment in Agriculture," (with V. Santaniello), accepted for presentation at the annual meetings of the International Agricultural Economics Association, Spain, 1985.

7. Other professional activities

Ben-David, Shaul, Professor

Energy Economics Consultant, Los Alamos National Laboratory.

Boyle, Gerald, Professor

Chairman, Ph.D. Committee for James Cilke.
Chairman, Ph.D. Committee for Michael Hymel.
Member, Ph.D. Committee for Patrick Garcia, Educational Administration, College of Education.
Chairman, M.A. Committee for Steven Miller.

Brown, F. Lee, Professor

"Sporhase v. Nebraska - Changed Ownership Interest in Water: A Necessary Part of State Planning," with C. DuMars and R. Cummings, paper presented at Western States Water Council Symposium on Water Planning, Salt Lake City, September 13-14, 1984.

"Some Remarks on the Role of Markets in Managing Western Water," with Gilbert Bonem, presented to the Select Committee on Water Marketing of the Montana Legislature, Billings, Montana, July 14, 1984.

Presentation to the Ford Board of Trustees on Western Water Policy Issues, June 30, 1984.

7. Other professional activities (continued)

Church, Albert M., Professor

Three miscellaneous off-campus talks on taxes, current economic policy.

Cohen, Sanford, Professor

Arbitration of labor-management disputes.

Cummings, Ronald G., Professor

Consultant: United Nations: Plastics in Agriculture Project (Saltillo, Mexico).

Consultant: Three Affiliated Tribes, Ft. Berthold Reservation, North Dakota: "Fair Market Value and Just Compensation for Tribal Lands Taken by Condemnation."

Non-paid Consultant: Various New Mexico Citizen groups seeking advice concerning WIPP and the El Paso Water Suit.

Gregory, Peter, Professor

Consultancies: U.S. Agency for International Development and The World Bank.

Referee for: Economic Development and Cultural Change and Latin American Research Review.

Jonas, Paul, Professor

Ten lectures for various civic groups.

TV interview on the New Mexican Economy.

Norton, Roger D., Professor

Co-editor: The Southwestern Review of Management and Economics.

Advisor to:
The Peruvian government on agricultural policy.

The Turkish government on methods of policy analysis.

7. Other professional activities (continued)

Parker, Alfred L., Professor and Chairman

Consultant to:
Jicarilla Apache Tribe, oil and gas and tax questions.

Allotees of the Arapahoe and Shoshone Tribes, oil lease and royalty accounting issues.

A-1 Carting (antitrust case).

Gibson Discount Stores (contract dispute).

Blackfeet Tribe (oil and gas accounting issues).

Office of the New Mexico Attorney General, Antitrust Division (antitrust case).

New Mexico Public Service Commission, (variety of regulatory issues).

Preparation of paper, "Profit Is Not a Four Letter Word," for Wellborn Paint Manufacturing Company.

Tailby, Donald G. Associate Professor

Talk to Philosophers Anonymous, September 1984.

8. Non-teaching University service

Ben-David, Shaul, Professor

University of New Mexico Delegate to the Universities Council on Water Resources.

Brown, F. Lee, Professor

Named Co-Director of the Natural Resources Center.

Burness, Stuart H., Professor

Dissertation advisor for four (4) Ph.D. students.

Microeconomic theory and resource examination committee (departmental).

University Academic Freedom Promotion and Tenure Committee.

8. Non-teaching university service (continued)

Church, Albert M., Professor

Arts and Sciences promotion committee.

Cohen, Sanford, Professor

Advisor - Department of Economics, graduate students.

Cummings, Ronald G., Professor

Faculty Advisor: major professor for Ph.D. Committees for -
Gretchen Blumberg
Erick Erickson
Mark Walbert

Ph.D. Committee member for -
David Boldt
Robert Patrick
Wade Martin
Mr. Ramon

Committees:
Resources/environmental economics program.

Comprehensive Field Examination Committee (Chairman) July, 1984 exams.

Comprehensive Field Examination Committee (Chairman) August, 1984 exams.

Goodwin, Thomas , Professor

Service on seven Ph.D. dissertation and one M.A. thesis committee.

Service on three graudate field exam committees - Public Finance, Econometrics, and Natural Resources.

Service on the faculty search committee.

Service on committees to restructure the econometrics and natural resources course offerings.

Participation in Senior Day.

Compilation of an interest table for the Institute of Public Law (UNM Law School).

Review of a book chapter for Professor Lawrence Ross (Sociology).

8. Non-teaching university service (continued)

Reviewer for the Review of Economics and Statistics and Water Resources Research.

Gregory, Peter, Professor

President, Faculty Concilium on Latin America (Until May, 1984).

President of Policy Committee, Latin American Institute (Until May).

Budget Committee of L.A.I..

Research and Scholarship Awards Committee, L.A.I.

Recruitment Committee, Department of Economics.

Hamilton, David, Professor

Member of faculty senate first half of 1984.

Jonas, Paul, Professor

Curriculum Committee, Advisory Committee, Dean, University College.

Asian Studies Committee, Russian Studies Committee, European Studies Committee, Department: Micro Committee.

Norton, Roger D., Professor

Dissertation advisor for:
James Ross Thomas
Bernadette Lanciaux
Richard Lotspeich
Rafael Celis

Thesis advisor for Carlos Ulibarri.

Parker, Alfred L., Professor and Chairman

Member, Anderson Schools of Management Dean Search Committee.

Member, Arts and Sciences Committee on a New Science College.

Member, Athletic Council, summer only.

Tailby, Donald G., Professor

Various M.A. and Ph.D. Committees in Department of Economics.

9. Public Service

Boyle, Gerald J., Professor

Member, Governor Task Force on Medical Care Cost Containment.

Member, Executive Committee of Task Force.

Chairman, Committee on Medicaid Financing (of Task Force).

Brown, F. Lee, Professor

Assistant to the State Land Office on water questions.

Organized working group on the Upper Rio Grande water problems.

Burness, H. Stuart, Professor

Assistant Leader, Corrales Boy Scout Troop.

Cohen, Sanford, Professor

Board of Directors, Rio Grande Planned Parenthood Federation.

Hamilton, David, Professor

Currently the labor member of the City of Albuquerque Labor Relations Board.

Currently the public member of the New Mexico State Labor and Industrial Commission.

Member of the Educational/Advisory Board of Consumers Union.

Jonas, Paul, Professor

Chairman, Economic Committee, Goals for Albuquerque.

Parker, Alfred L., Professor and Chairman

Volunteer service for the Assistance League of Albuquerque (operative the Blue Portal, a Thrift Shop and mean service for senior citizens).

Tailby, Donald G., Professor

New Mexico Mountain Club - Trip Leader.

ANNUAL REPORT
DEPARTMENT OF ENGLISH
UNIVERSITY OF NEW MEXICO
1984-85

Chairman: Hamlin Hill
Associate Chairman: David McPherson
Policy & Personnel Committee: David McPherson, Chair, Robert Fleming, Louis Owens (spring), Pat Smith, Joe Zavadil (fall), Cheryl Fresch, Helen Damico, Lynn Beene, Chapel Petty Schmitt (TA), Judith Walker (TA)

Perhaps the most remarkable achievements within the English Department in 1984-85 were those of individuals, not of the Department as a unit. In the fall Lee Bartlett, Helen Damico, and Peter White all received Presidential Junior Professorships, which were two-year awards providing $2,000 per year in salary supplement and $500 for research expenses. What is remarkable is that many departments, even some large departments (e.g. mathematics), got no awards at all in this category (it is true that Peter White's award came through the American Studies Department, but we all know that he was 90% English). Then in the spring Morris Eaves received a Presidential Senior Professorship, a five-year award providing $5000 per year in salary supplement and $2,500 per year for research expenses. Again the English Department can be proud in that there were only six such awards in the entire College. Rudolfo Anaya continued to receive his prestigious multi-year Kellogg Foundation grant, and Professor Eaves spent the year as a fellow at the National Humanities Center in North Carolina. Other individual achievements (awards, honors, publications) may be found by consulting the annual biographical supplement for each professor.

Personnel changes during the year were not extensive. Christopher Madigan, an assistant professor at the University of Missouri, St.

Louis, was successfully recruited and will join the Department in fall 1985 as a specialist in composition. Professor Anne Dunn, a visiting assistant professor in 1984-85, accepted the offer of another year in that same category. Professor David Remley moved (100% FTE) from the English Department to the American Studies Department, effective fall 1985, and Professor Peter White increased his commitment to American Studies by going one-third time there, effective fall 1985. On the other hand Professor Sam Girgus, formerly paid 100% by American Studies, will now be paid 40% by English. The part-time instruction budget will be more stable in future. Instead of hiring everyone in that category on a semester-by-semester basis, we were able to hire five lecturers on an almost full-time basis (.88 FTE) for the whole year 1984-85. They were Krys Douglas, Janet Gaines, David Kammer, Stephanie Kauffman, and Alan Pope. These same five were given a similar contract for 1985-86, and the department is in the process of hiring two more such lecturers for 1985-86.

Enrollments in the Department as a whole held steady in 1984-85. Combined fall-spring enrollment for 1983-84 was 9,422 students, while in 1984-85 we had 9,399--a net decline of only 23 students. Freshman English continued to increase in size, while some other parts of the curriculum declined. Those who favor hiring additional specialists in composition will see this as one more piece of evidence in favor of their position. Indeed, the Department voted during the year to

try to recruit in 1985-86 just such a specialist to fill permanently the slot now being filled by Anne Dunn (herself a composition specialist). There was considerable sentiment for advertising for a beginning assistant professor rather than (as this year) for people already holding assistant professorships.

The biggest change in the curriculum in 1984-85 was the adoption by the Department (and then by all of the relevant agencies above departmental level) of the professional writing concentration for the undergraduate English major. Because of the curricular importance of this new concentration it receives a great deal of space in a later section of this report. Those interested in more detail are referred thither.

A word should be said for the benefit of historians about the unusual arrangements in 1984-85 concerning the Chair. Hamlin Hill, although on loan to the U.S. Information Agency in Washington all year, nevertheless continued to serve as chairman. The day-to-day handling of departmental affairs was, however, done by David McPherson, who is also the author of this portion of this report.

What follows are reports from key committee chairs: Bary Gaines, Director of Graduate Studies; Paul Davis, Director of Undergraduate Studies; Michael Hogan, Director of Freshman English; Lee Bartlett, Chair, Creative Writing Committee; and Scott Sanders, Director, Professional Writing Program.

GRADUATE PROGRAM

Graduate Director: Barry Gaines
Graduate Committee: Lee Bartlett, Pat Gallacher, Paul Hadella, David Jones (first semester), Ivan Melada (second semester)

In 1984-85, there were over 90 students enrolled in the English graduate program. Bill Balassi completed and successfully defended his Ph.D. dissertation, entitled "How It Probably Was: A Reconstruction of the Day-by-day Writing of the Manuscript of The Sun Also Rises," under the supervision of Bob Fleming. Under the direction of Pat Gallacher, Louis Lopez completed and defended his Ph.D. dissertation, "Composition of Place and Landscape Motif in Medieval Dream Poetry." Both of these students received the Ph.D. degree. Finally, Sharon Hileman defended her Ph.D. dissertation on George Eliot and narrative under the direction of Fred Warner and is awaiting graduation in the summer session.

Karen Sunde passed the doctoral comprehensives this year in the areas of 18th Century British Literature and Rhetoric and Composition. George Reynolds did not pass either of two attempts at the 19th Century British Literature Comprehensive and has left the program. New Ph.D. students took the Ph.D. diagnostic examination to indicate the range of their background outside of their field of major concentration. The diagnostic exam was successfully completed by David Harrell and Martine Ostap.

There were some fine performances on the M. A. examination, and

the following received degrees: Alan Blackstock, Peter Bochert, Gail Gilliland, Stephen Mathewson, Charles Schelberg, and Jon Tuttle in the Fall, and Mohammed Ali and Aurora Lawrence in the Spring. In creative writing, David Wright, Federico Mora, Kay Jimerson, Sören Johnson, and Sharon Lewis all completed their theses and received their degrees. Lisa Hart, Robert Stonecipher, and Jeff Gardner have also completed and successfully defended their theses in creative writing and are awaiting graduation. Graduate students also received their share of awards this year: Chuck Campbell, David Harrell, and Cassandra Sitterly received Graduate School Tuition Remission Fellowships; a $6000.00 Challenge Assistantship was awarded to Leslie Donovan, to support her project of computerizing the files of Shakespeare Studies and Blake/A Quarterly; Dixie Lee Larson was awarded a $2500.00 Legislatively-Endowed Fellowship and Chapel Petty Schmitt received a $1000.00 Achievement Fellowship as well as an American Association of University Women Fellowship.

FRESHMAN ENGLISH PROGRAM

The Freshman English program continued to grow in the 1984-85 academic year. We had almost 7000 students enrolled in English 101 and 102 last year (and an additional 20 sections of English 100 were staffed by the English Department in order to maintain smooth articulation between the General College English offering and the regular freshman offerings). The 7000 figure represents approximately a 5% increase over the previous year. 84-85 was the eighth

consecutive year in which the number of students taking English 101 and 102 has risen, with the total increase in the eight-year period approaching 40%.

As a result of enrollment patterns, we also saw a continued increasing reliance on Lecturers to staff FE courses. The allotment of Teaching Assistants in FE has remained constant at 45 for the year, and in 84-85, consistent with a three-year trend, we had fewer senior faculty teaching FE. Thus, the numbers on the involvement of Lecturers in the program are interesting:

Fall 1984	Spring 1985
14 part-time Lecturers taught 33 sections	13 part-time Lecturers taught 28 sections
5 year-long Lecturers taught 17 sections	5 year-long Lecturers taught 14 sections

Happily, we can look forward next year to continuing our 5 year-long Lecturer appointments and increasing the number by 2.

After a three-year period of essentially unchanged curriculum, the Freshman English Committee determined in its meetings during 84-85 to make several amendments, effective for 85-86. Two upcoming changes, in particular, deserve mention: 1) English 101 will next year have a rhetoric text (McCrimmon's Writing with a Purpose) as its principal text, with the language reader moved to a supplemental status; 2) in both 101 and 102 there will be built into the common

syllabi more direct attention to the interrelation of writing and reading skills (this also to show up in training sessions).

CREATIVE WRITING PROGRAM

Director: Lee Bartlett
Committee: Rudy Anaya, Gene Frumkin, David Johnson, Tom Mayer, Louis Owens, Pat Smith, Harvena Richter

This was again a good year for the creative writing program. No major changes were made in the program, though the general faculty agreed to make available to qualified graduate students an apprentice program in teaching writing workshops. The number of students enrolled in both the undergraduate and graduate creative writing program continue to increase, and the demand for workshops continued to grow. The theory of fiction and poetics courses, required of creative writing graduate students, continued to draw, along with the workshops, a number of students from outside our program, as well as auditors from the community. As of the end of the spring semester we have again admitted a number of new students into the program.

David Wright, Lisa Harte, Fred Mora, Kay Jimmerson, Jeff Gardner, and Bob Stonecipher successfully completed their oral examinations and theses for the M. A. in creative writing this year; additionally, nine undergraduates finished theses for the major.

Under the sponsorship of the office of the President, novelists

Ishmael Reed and Diane Johnson each did a week's residency here this spring. The writers met with a number of creative writing workshops as well as literature and film classes, and each gave a public lecture/reading. Further, under the sponsorship of the English Department, the Graduate Student Association, and ASUNM, the reading committee offered a number of readings this year; besides noon readings by graduate students and faculty members, readers included Anne Waldman, Stephen Rodefer, Tom Raworth, Ishmael Reed, Sandra Cisneros, Janet Rodney, Nathaniel Tarn, Miguel Algarin, William Oandasin, John Brandi, Arthur Sze, Shirley Kaufman, Michael Palmer, Phyllis Thompson, and Thom Gunn. Further, the committee again undertook a massive lobbying campaign to insure continued funding from ASUNM and GSA for the 1985-86 series.

Nancy Gage, who completed her M. A. in creative writing last spring, won first place in this year's Cosmopolitan short story contest, which brought her national recognition. This year's D. H. Lawrence Fellowship went to Alan Hines, a novelist living in New York City; the committee consisted of Pat Smith, Louis Owens, and Hugh Witemeyer, with Lee Bartlett acting as chair. James Mackie won the Academy of American Poets Prize (Mary Dougherty, judge); Lisa Harte won the newly created Short Fiction Prize (Wendy Bishop, judge). The D. H. Lawrence again drew over 400 letters of enquiry and 150 applications, while the poetry and fiction contests each gathered over 40 contestants.

While individual faculty member's achievements are outlined in the annual supplements to the biographical record of each, it is noteworthy that a number of the Creative Writing faculty were at the top of the English Department in the College's "point rating scale," which measures the quantity of one's publications; further, this year Rudy Anaya continued on his Kellogg Foundation Grant, Pat Smith continued to do research and travel on her Rockefeller Grant, and Gene Frumkin went to Hawaii on a teaching-exchange with Phyllis Thompson.

Penguin Dust, the Creative Writing newsletter, once again appeared four times this year. By all indications, the Creative Writing Program continues to thrive.

PROFESSIONAL WRITING PROGRAM

Director: Scott Sanders
Professional Writing Committee: Scott Sanders, Chair; Lynn Beene, David Dunaway, Anne Dunn, Michael Fischer, Michael Hogan; Paul Davis and Peter White attended frequently as ex officio members

The Professional Writing Concentration is new this year, the latest addition to the array of undergraduate concentrations the department offers to students pursuing an English degree.

The curriculum was designed by the professional writing committee during several meetings in August and September. The curriculum

proposal was approved by the Department's Undergraduate Committee, then by the Policy & Personnel Committee in late September and early October, and approved by the College of Arts and Sciences' Curriculum Committee in early November. The concentration received final approval in the first week of December.

The program promises to be popular. All five professional writing courses offered in 1984-85 easily achieved sufficient enrollment, and pre-registration indicates that the four courses in the concentration offered for Fall 1985 should also fill. Twelve students have formally declared for the concentration by completing counseling sheets. About a dozen more students are taking courses in the concentration as they consider it for their major.

The Curriculum -- The Professional Writing Concentration does not simply overlay the traditional literature degree with a few courses in writing. It combines 12 hours of coursework in writing beyond the six required hours of Freshman English with 21 hours of language and literature study. One hour of credit is granted for a required internship, completing the 34 hours of English courses required for the degree.

Nine of the twelve hours of writing courses are upper division, which balances exactly with the nine upper division hours required in literature and criticism. The effect is to make the concentration similar to an English Honors curriculum for students whose special

interests are in writing rather than in literature, and non-academic, professional employment rather than graduate school.

This similarity is strongest in the internship and senior project requirements. Instead of an honors seminar and senior thesis, professional writing students undertake an internship and then a research project that culminates in a written report of undergraduate thesis length and quality. The project report is also presented orally in a manner similar to the public defense of an honors thesis.

Students must also design a professional complement to their English study. For most students, the complement consists of nine upper division hours in a technical, professional, or scientific field. Some may elect to take nine hours distributed among these areas -- but the courses must still be upper division. The complement requirement encourages students to minor in such departments as computer science, business, or mathematics.

The curriculum does not require English 219, the service course in technical writing. Advanced technical writing will be offered, but as only one of several specific genre topics taught in upper division writing seminars. Not including 219 in the curriculum emphasizes that the program is a writing concentration within the English major -- not an expansion of the service curriculum in technical writing.

New Courses -- No new course numberings were created to accomodate the curriculum. New courses will be taught as specific topics for existing workshop courses. For instance, Advanced Technical Writing was taught in the spring semester as a section of English 320: Advanced Expository Writing; Writing in the Professions was taught as English 298: Workshop in Writing. We will offer many new writing courses in this manner over the next several semesters. Future course topics may include editing, grant and proposal writing, computer applications to writing, the teaching of writing, and others.

Establishing the Internship Program -- The internship ensures that all graduates will have a minimum of experience outside the classroom in the professional settings students can expect to encounter in their careers. Usually students must have completed their upper division coursework before they undertake the internship. Students must arrange their own internship placements in consultation with the Director. This makes the requirement a useful prelude to the post-graduation job-search.

Academic credit of one hour is granted for a proposal, progress report, and final report that students write based on their intern experience -- not for the experience itself. This distinction allows for the variety of internship arrangements that different students will make. Internships may be salaried or unsalaried, last four weeks or four months -- each would be evaluated equally on the basis of the written reports submitted by the student to the Professional

Writing Committee.

We are developing a file of possible intern placements. Seventy-five letters were mailed to professional writers working in banks, for the city, county, state, and federal governments, at Sandia and Los Alamos National Labs, in hospitals, at utility companies, for several large and small computer-related firms, as private consultants, and in other settings. Also, several other letters were sent to possible intern supervisors at UNM. To date, thirty potential intern supervisors have replied. Each is eager to work with our students.

One student, Eric Rajala, is interning at Software Solutions in Albuquerque. Eric is a paid, part-time summer employee. He has full responsibility for writing the specification manuals for two software programs the company markets. Management is pleased to have Eric. They hope he will accept their job offer after he graduates (probably as the first English Major -- Concentration in Professional Writing, with minors in Philosophy and Math) in December 1985.

Professional Writing Minor -- The minor continues to attract new students. Six students have officially declared the minor in 1984-85. Chris Larkin graduated in May with a Professional Writing Minor and an Economics major. She interned with Bob Julyan in the UNM Public Information Office, writing and editing such diverse documents as departmental publicity brochures and the program for

the WAC track meet.

The committee has voted to recommend two changes in the minor curriculum. Credit granted for the internship will be reduced from three hours to one, and students will be required to write a proposal, progress report, and final report -- making the minor internship consistent with the program in the major. To replace the lost credit hours, an interdisciplinary, elective requirement of one three-hour course numbered 300 or above will be added. The elective course may be in any department on any relevant subject; students must petition the committee to accept a specific course. These changes would increase the hours in the minor from 18 to 19. A formal proposal recommending that these changes be adopted will be sent to the appropriate departmental committees in August.

Changes in Committee Membership -- Michael Fischer resigned from the committee in April. Robert Fleming has agreed to join the committee in the fall. We look forward to the arrival of newly-hired Chris Madigan, whose expertise in composition and the use of computers in writing promises new topics for professional writing seminars.

Conclusion -- The Professional Writing Concentration is off to a good start. The curriculum is bringing new students into the Department, students who otherwise might not have considered an English major. The curriculum also strengthens the Department's role on campus and in the non-academic community as a center for teaching and research

in writing -- not just literary or creative writing -- but also the very necessary and very practical writing that professionals must do every day in their work.

UNDERGRADUATE PROGRAM

The undergraduate program continued to grow during the 1984-85 academic year. Overall the number of English majors and minors increased over the previous year and all of the major concentrations except comparative literature continued to interest students. Three areas -- the professional writing major and minor, the A & S General Education proposals, and the departmental honors program -- received the most attention from the Undergraduate Committee and the Undergraduate directors.

Professional Writing -- Under the leadership of Scott Sanders, a new professional writing major was proposed, developed, and approved by the college. We admitted the first students to the program during the Spring semester. Student interest in the major remains high; we may need to restrict enrollment in this major within the next few years, since faculty resources in professional writing will probably not be adequate to meet all of the student demand.

The new major combines a traditional English major, including a substantial component of literary study, with courses in language and rhetoric, a complementary area of technical study, and some practical work, both in the classroom and in an internship. Some of

the students who have entered the program are students who would probably have majored in either English literature or creative writing and are attracted by the vocational training in the major; others are students with technical interests and a flair for writing who would probably have majored in a technical area. Some of these students are taking professional writing as half of a double major.

Some minor changes were made in the already existing professional writing minor to make its requirements consistent with those for the new major.

The A & S General Education Proposals -- During the last two years the Undergraduate Committee has worked with some members of the Philosophy Department to develop the basic concepts and texts for the Western literature course in the proposed new requirements. If the A & S faculty approves the new program, the Undergraduate Committee is prepared to propose appropriate revisions in the sophomore literature program to respond to the changed requirements.

The latest version of the general education proposal provides two areas of the core curriculum in which English could offer courses. As well as the Western traditions area, the current proposal includes literature as one of the arts in the fine arts category. For many in the department who thought that the original proposal neglected the core of our discipline, this is a welcome change.

Departmental Honors Program -- Last year the Undergraduate Committee revised the procedures for the honors program so that the individual projects done by various students would be more consistent in their expectations and standards. The new procedures have been successful in encouraging more students to enter the program; there is still a good deal of faculty concern, however, about the quality of the work being done for some of the projects. Several suggestions for rescheduling the honors project to two semesters have been made by faculty members. The Undergraduate Committee will take up these suggestions in the fall.

Thanks -- To Peter White, who took over as Acting Director of Undergraduate Studies during the second semester while I was on leave. He freed my sabbatical from the very concerns that I needed to get away from.

Paul Davis, Director of Undergraduate Studies
Members of the Committee: Michael Fischer, Antonio Marquez, David Remley, Patricia Smith, Fred Warner, Mary Bess Whidden, Joseph Zavadil

ADDENDUM: Accidentally omitted from the Freshman English Committee report was the following:

Director: Michael Hogan
Freshman English Committee: James Thorson, Anne Dunn, Joyce Emert, Margaret White, Charles Poling, Nancy Gage, Greg Candala

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UNM Annual Report
Geography Department
July 1, 1984 to June 30, 1985

Prepared by:
Stanley A Morain
Chairman

UNM Annual Report
Geography Department
July 1, 1984 to June 30, 1985

1.0 Overview

Major activities for the academic year included 1) advertising and searching for a faculty member to teach computer cartography, geographic information systems and field methods; 2) initiating a departmental newsletter for distribution to geography alumni and friends; 3) participating in a new initiative to create a tri-state consortium in applied geography and land-use planning which would include Arizona State University at Tempe and University of Nevada, Reno; 4) taking a lead role in the design, logistics and execution of the Southwest Institute; and, 5) expanding the activities and opportunities for our student intern program

2.0 Departmental Achievements

2.1 Faculty member for cartography

The late resignation of Dr. Dennis Fitzsimons in June 1984 forced the department to initiate and search for a replacement throughout most of the 84/85 academic year. The marketplace for professional (research) cartographers is keen in the United States in both the academic and private sectors. UNM was fortunate in receiving some 25 applications from which two highly qualified individuals emerged. In April, 1985 Dr. Guy King accepted the invitation to join the faculty and to direct our instructional and research programs in cartography, field methods and geographic information system (GIS) development. Dr. King holds a Ph.D. degree from Utah and has worked for several years at the Defense Intelligence Agency in Washington. He is not only well versed on computer cartography technology but highly current in the applications and research potential of GIS.

2.2 Departmental Newsletter

A departmental newsletter was designed and the first two issues were released during the Fall and Spring semester (Attachments 1 & 2). Our distribution includes all known addresses of former geography graduate and undergraduate majors, local friends of geography, geography departments nationwide, and all state legislators. Our aim is to maintain contact with a wide sector of interested parties as well as to advertise program accomplishments and up-coming events. In time, it will also become an avenue for networking with former graduates and for fund raising activities.

2.3 Applied Geography Consortium

UNM, together with the geography departments at ASU in Tempe and UNR, participated in a series of planning and organizational meetings to explore the creation of a tri-state consortium in applied geography and land-use planning. The outcome of these meetings is briefed in Attachment # 3. All of the participants are encouraged by the assemblage of both unique and shared capabilities that form the base of future cooperation, and our immediate aim for AY 85/86 is to continue the dialog and commence implementing the "do-able and low cost" items on our agenda.

2.4 UNM Southwest Institute

Attachment 4 is the premier program announcement for UNM's Southwest Institute, conceived, organized and coordinated by Dr. Jerry Williams. It is a unique interdisciplinary effort to characterize the cultures and environments of the Southwest. This inaugural year focuses on the Rio Arriba-Rio Abajo in New Mexico and features a blend of lectures, field trips, exhibits and social functions to acquaint enrolled participants with those "scholars who teach, research, and write about the Southwest." Sponsorship of the institute is shared by the College of Arts and Sciences, the Graduate School, the Colleges of Education, Fine Arts and Architecture & Planning, the General Library, the Law School and Women's Studies. It is indeed rare for so many scholars and such a diverse array of academic units to forge a bond for purely educational rather than political or economic reasons. The department, and certainly many others, commend Dr. Williams for his mammoth effort.

2.5 Intern Program

During the Fall Semester six students were enrolled in the Department's intern program, and eight different students enrolled in the Spring. These were split roughly 50-50 between Drs. Morain and Williams and their experiences ranged between the U.S. Bureau of Land Management, the City of Albuquerque and other public and private employers.

3.0 Faculty Achievements

3.1 Publications

Elinore M. Barrett

Barrett, E.M., (in press), The Mexican Colonial Copper Industry, Instituto Nacional de Antropologia e Historia, Mexico.

Iven Bennett

Two papers were completed and submitted for publication: "Nightime cooling in the Desert Southwest"; "Temperature as a function of elevation and latitude: an example from New Mexico ."

Completed 15 maps of the climate of New Mexico, with accompanying tables and text. To be included in the 2nd ed. of New Mexico in Maps, J. Williams, ed., UNM Press, 1985.

Bradley T. Cullen

Cullen, B.T., 1984,"Energy Assistance For The Poor: An Evaluation And Alternative Allocation Procedure", Energy, Vol. 7, with James H. Johnson, pp. 571-581.

Cullen, B.T. (in press),"Wholesale And Retail Trade", in J. Williams, New Mexico In Maps, Albuquerque: University of New Mexico Press.

Cullen, B.T. (in press),"Manufacturing", in J. Williams, New Mexico In Maps, with J. Williams, Albuquerque: University of New Mexico Press.

Cullen, B.T. (in press), "Traffic Flow Patterns", in J. Williams, New Mexico In Maps, with J. Williams, Albuquerque: University of New Mexico Press.

Cullen, B.T., 1985, "New Mexico Pilot Project for Improved Environmental Decision-Making." Proposal submitted to US Environmental Protection Agency.

Stanley A. Morain

Morain S.A., 1984, Systematic and Regional Biogeography, New York: Van Nostrand Reinhold, Inc., 335 pp.

Morain, S.A. 1984 "Transfer and Commercialization of Remote Sensing Technology" International Journal of Remote Sensing 5(6): 1-11.

Susan E. Place

Susan E. Place., (in press),"Ecological Conservation and Rural Development in Latin America: The Case of Tortuguero, Costa Rica," in 1985 Yearbook of the Conference of Latin Americanist Geographers, edited by L. Pulsipher. Baton Rouge: Lousiana State University.

Susan E. Place., (in press),"Export Beef Production and Development Contradictions in Costa Rica," Tijdschrift voor Economische en Sociale Geographie.

Rodman E. Snead

Snead, R.E., 1984,Book review (BR). A volume by Cooke, Brunsden, Doornkamp, and Jones titled Urban Geomorphology in Drylands. Appeared in Professional Geographer, Vol. 36 No. 3 pp. 380-381.

Snead, R.E., 1984, "New Mexico" in The New Book of Knowledge, Vol. 13: 180-195.

Snead, R.E., 1984, "The Himalayas" in Funk and Wagnall's New Encyclopedia, Vol. 11: 192-193.

Snead, R.E., 1984, Slide Set No. 2130 Introduction to Regional Climates; Slide Set No. 2132 World Climates I; Tropical Rainforest (Af); Slide Set No. 2134 World Climates II; Tropical Monsoon (Am); Slide Set No. 2136 World Climates III; Tropical Savanna (Aw); Slide Set No. 2138 World Climates IV; Arid Regions (BW & BS); Slide Set No. 2140 World Climates V; Mediterranean (Cs); Slide Set No. 2142 World Climates VI; Humid Subtropical Climactic Regions (Cfa); Slide Set No. 2144 World Climates VII; Marine West Coast (Cfb, Cfc); Slide Set No. 2146 World Climates VIII; Humid Continental (D); Slide Set No. 2148 World Climates IX; Arctic Climatic Regions (Et, Ef); Slide Set No. 2150 World Climates X; Highland Climatic Regions, JLM Visuals, Slide Programs for the Natural Sciences, Grafton, Wis.

Snead, R.E., 1985, "Pakistan" in Eric C. Bird and Maurice L. Schwartz, The World's Coastline, Van Nostrand Reinhold Company, New York, pp. 735-739.

Snead, R.E., 1985, "Bangladesh" in Eric C. Bird and Maurice L. Schwartz, The World's Coastline, Van Nostrand Reinhold Company, New York, pp. 761-765.

Snead, R.E., 1985, Slide Set No. 1777 Satellite Views of North American Coastlines (30 slides); Slide Set No. 2090 Storms and Other Atmospheric Disturbances (20 slides) JLM Visuals, Slide Programs for the Natural Sciences, Grafton, Wis.

Stephen A. Thompson

Thompson, Stephen A. and Gilbert F. White, (in press), "Estimated Proportion of Land in Floodplain for the U.S." (map and article), Journal of Soil and Water Conservation

Jerry L. Williams

Williams, J. L., ed. (in press), New Mexico in Maps (2nd Edition), UNM Press.

3.2 Promotions and Other Recognition

Dr. Stan Morain was promoted to Full Professor. Dr. Stephen Thompson has been asked to present a paper in recognition of his former Ph.D. advisor, Dr. Gilbert White. The paper will be presented in August at a national ceremony honoring Dr. White's outstanding career as an educator and environmentalist. Dr. Susan Place has been awarded a Fullbright Scholarship to participate in a Summer Seminar on South America. She will spend the period from July 1 to August 15 travelling and speaking in Argentina, Bolivia, Ecuador and Colombia as one of ten U.S. faculty addressing political, social, economic and cultural developments since World War II.

4.0 Additions/Separations

4.1 Additions

Dr. Guy King was offered an assistant professorship to replace the position vacated by Dr. Dennis Fitzsimons. Dr. King will enter the faculty system at UNM as Code 1 @ $23,000 in August, 1985.

4.2 Separations

There were no separations from the faculty or staff during the fiscal year.

5.0..Funded Research

The department submitted proposals in the amount of $768,122. during the year. These are listed below in alphabetical order by Principle Investigator:

5.1. Cullen, B., with Stephen A. Thompson and Robert D. Campbell, "A Proposal to create and Integrated Water Resources Information and Project Evaluation System for the State of New Mexico." Proposal submitted to the New Mexico Water Resources Research Institute. $20,069.00

Cullen, B., with Susan Place in cooperation with New Mexico State University. "New Mexico Pilot Project for Improved Environmental Decision-Making." US Environmental Protection Agency, (march, 1985), coauthored American Sawmills".

5.2. Morain, S.A., 1984, "Development of a Model to Inventory and Measure Fuelwood Supplies in Semi-Arid Woodlands", Proposal submitted to National Aeronautics & Space Administration. $211,000.

Morain, S.A., 1984, "Acquisition of Image Processing Microcomputers and Computer Cartography Equipment for Earth Resources Research and Planning," Proposal submitted to National Science Foundation. $230,000.

Morain, S.A., 1985, "Analysis of Desertification Processes in the American Southwest," Proposal submitted to National Aeronautics & Space Administration. $299,900.

5.3 Thompson , Stephen A., with Bradley T. Cullen an Robert D. Campbell, "A Proposal to create and Integrated Water Resources Information and Project Evaluation System for the State of New Mexico." Proposal submitted to the New Mexico Water Resources Research Institute. $20,069.00

Thompson, Stephen A., 1984, "An Analysis of the Statutory Change in Determining the Duty of Water for Irrigation in New Mexico." Proposal submitted to the New Mexico Water Resources Research Institute. $ 7,153.00

6.0 Goals

6.1 Goals stated for 1984/85 that were accomplished.

Three of the six goals set for 1984/85 were met. A newsletter was created and distributed; the tri-state consortium carried out it organizational meetings and made recommendations to their respective deans; and several proposals were submitted for sponsored research.

6.2 Goals pending from 1984/85 and new goals for 1985/86.

Three goals were not addressed in 1984/85 primarily because of the time required to advertise and search for a faculty replacement in cartography. Hopefully, these will be addressed in the coming year. They include 1) creating a set of rules of governance for the department; 2) creating policies for the intern program; and 3) remodeling the MA program. The last of these ideas has recently become an item of importance considering the proposal from NMSU to create an MSc in Applied Geography. Primary goals for the coming year are to complete the backlog and to pursue our M.A. and future Ph.D. planning.

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University of New Mexico
Albuquerque, NM 87131

GEOGRAPHY

News Briefs

Vol. 1 #1 Fall 1984 Bandelier West, UNM, Albuquerque, New Mexico 87131

Inaugural Message

As part of Geography's twentieth birthday at UNM, we believe the time has come to inaugurate a newsletter for our many friends and colleagues around the nation and around the world. Our purpose in this effort is not only to link our former students by providing a point of contact, but to give ourselves a forum for announcing departmental activities and program achievements. We welcome your comments, opinions, and newsworthy items for future editions and hope you will use the newsletter for keeping in touch.

Believe It or Not

The department now has 33 undergraduate majors and 16 MA students, and in the past few years has been graduating in the neighborhood of 12-15 people. Of course this doesn't compare to larger departments but it seems about right for the local marketplace. In jobs and career opportunities. Our focus in the last few years has been on applied Geography, which means we are providing education and practical training in cartography, land-use planning, environmental studies, economic development and remote sensing.

New Faculty

Dr. Susan Place, who took her Ph.D. at UCLA and taught for several years at Radford University in Virginia, specializes in economic development and Latin America. Her primary interest right now is in the economics and environmental tradeoffs of cattle ranching in Costa Rica. North American demand for low cost beef is apparently so high that land use conversions associated with increased production are detrimental to the tropical ecosystem.

Dr. Steve Thompson recently graduated from the University of Colorado Natural Hazard Research Institute where he worked closely with Dr. Gilbert White. His interests are in water resources and the development of irrigation systems in the Southwest. System design, economics, and physical/environmental tradeoffs are all important aspects of water development and we are pleased to add these topics to our curriculum.

Dr. William Hodges, whom many of you may recall was graduated from our M.A. program in 1975, is a visiting assistant professor this semester while we continue our search and selection for a cartographer. Bill has actually been a visitor on the faculty since Fall 1982 teaching Introductory Physical Geography, World Regional, and several other environmentally oriented courses. In September he completed his doctorate at the University of Toronto.

Applied Geography Consortium

We have begun a dialog with Arizona State University at Tempe and the University of Nevada at Reno regarding the creation of an Applied Geography Consortium. Each of the three departments focuses on different aspects of our discipline so there may be mutual advantages if we share our resources. According to a recent editorial in Science Magazine, "Consortiums may be the outline for what universities will become in the next century...Geographically kindred campuses that are linked by agreements might be able to exchange people, courses, and equipment... to achieve wider research and educational opportunities while still preserving separate identities." Our first organizational meeting was held in Tempe, Arizona, in late September and will be followed by meetings at UNM and in Reno.

Faculty Notes

Rod Snead has just returned from seven months in New Zealand where he was an exchange professor at the University of Otago in Dunedin. His book on Coastal Landforms and Surface Features is also now available through Hutchinson Ross Publishers.

Jerry Williams spent most of last summer in Washington, DC, and spent some time working with the U. S. Agency for International Development. A revision and second edition of his New Mexico in Maps will be available this Fall from the UNM Press.

Stan Morain's book, Systematic and Regional Biogeography, was released in June through Van Nostrand Publishers. Last July/August he spent six weeks in China working with the United Nations Food and Agriculture Organization on a project involving Beijing Agricultural University and the Chinese Ministry of Agriculture.

Student Notes

A Geography Intern program was started by Jerry Williams in the Spring of 1983 and continues to show rapid growth and popularity. This semester Steve Tollefson and Ann Stevenson are working on a project with the Bureau of Land Management, while Bob Bewley and Susan McDuffie have moved into the BLM "Coop" program.

New Mexico Geographical Society

NMGS, an active society open to any individual with an interest in Geography, launched its Fall activities with an Open House on October 11. The objective of the society is to promote geographical endeavors through its ongoing colloquia series, field excursions, and social gatherings. Future activities include a fall outing to northern New Mexico, November 16-17, a Christmas party, and a student paper competition in the Spring.

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GEOGRAPHY

News Briefs

Vol. 1 #2 Spring 1985 Bandelier West, UNM, Albuquerque, New Mexico 87131

Applied Geography Consortium

The second organizational meeting of the UNM, ASU UN-R consortium in Applied Geography and Land Use Planning was held at UNM last November 16. Dean McDermott welcomed the group to our campus and reiterated her keen interest in our activities. So far the organizers have discussed prospects for exchanging faculty and students on either an individual lectureship or semester basis, allowing access to unique facilities and equipment, preparing joint research proposals on major environmental and planning problems, and conducting joint summer field camps. The third, and last, of the organizational meetings will be held in Reno on February 8 where a draft report of our deliberations will be prepared for circulation.

Colloquium Series to Highlight Spring Semester

A Wednesday afternoon colloquium series is being finalized for this spring. Dr. Will Swearingen will lead off on January 30 with a presentation of his research on Moroccan agricultural development. Each of the six public presentations is scheduled for Room 104 Bandelier West at 3:30. Subsequent speakers and titles will be announced for February 13, March 6 and 27, April 7, and May 8. The geography Graduate Student Association is organizing the series, and they hope to secure travel funds to invite speakers from other departments in the region.

Student Paper Competition

Another new initiative centers on the New Mexico Geographical Society's "paper competition." Both undergraduate and graduate majors are eligible to compete on separate occasions in late March. For each competition, two prizes will be awarded: a first prize of $50, and a second prize of $10. Undergraduate papers will be presented March 25 from 3-5pm in Woodward Hall. The graduate presentations will follow on Monday, April 1. If you are interested, you must submit an abstract by March 1, 1985, to Mike Springfield, Room 213, Bandelier West. Further details can also be obtained from Mike.

New Southwest Institute to be Inaugurated

Dr. Jerry Williams has been appointed director of the Southwest Institute at UNM, an interdisciplinary program which will provide a four-week classroom and field concentration on a geographic area of the Southwest. The focus for the summer of 1985 is "Rio Arriba-Rio Abajo in New Mexico." Faculty of the Institute are from the College of Arts and Sciences, Architecture and Planning, Fine Arts, College of Education, Library Services, Native American Studies, SW Hispanic Research Center, and Women's Studies. Students will be eligible for up to six hours of undergraduate or graduate credit through the Institute.

Social Events and Field Trips

On November 16 the department took a mass exodus to the D. H. Lawrence Ranch in northern New Mexico. The weekend was spent exploring ghost towns and northern New Mexico communities.

December 8 saw the occasion of the NMGS/departmental Christmas party. Host Rod Snead opened his home, pool, and jacuzzi to an evening of excellent food, suds, and plain good fun. Oh yes! the students also shocked the faculty with gifts. I guess we learned a thing or two! If the faculty could muster the strength to retaliate, we could inaugurate the first annual student awards assembly. But.....?

Student Notes

The department is pleased to announce that Denise Egolf (Class of 86) has been awarded a National Geographic Society internship for the spring semester 1985. Denise will work in Washington, DC, in the cartographic division of NGS from January to May. She was selected from a nationwide pool of 127 applicants!

Beth Mills, a graduate student specializing in the cultural geography of Latin America has been awarded funds from the UNM Latin American Institute and the Interamerican Foundation to carry out her thesis field work in Grenada. Her plans are to spend the spring and summer of '85 conducting research on the factors limiting agricultural productivity in resettlement communities.

David McCraw will present a paper titled "A Phytogeographic History of Larrea in the Desert Grasslands of Southwestern New Mexico" at the divisional meeting of the American Association for the Advancement of Science (AAAS) Conference in Tucson, Arizona, this March. The material for his paper is derived from his Master's thesis.

Faculty Notes

In October Dr. Susan Place traveled to Ottawa to present a paper at the meeting of the Conference of Latin American Geographers (CLAG). Her title was "Rural Economies and Ecological Conservation in Latin America." Susan also serves on the board of directors for CLAG.

Drs. Jerry Williams and Brad Cullen each presented papers at the annual meeting of the Southwest Division of the Association of American Geographers in Lubbock, Texas, last September. Jerry's paper was titled "Missouri Avenue on the Caprock" while Brad spoke on the "Analysis of a Household Energy Use Survey."

Dr. Iven Bennett has acquired a complete set of digital climatic data for New Mexico from the State Climatologist. The data are available on 1600 bpi tapes and can be accessed through Iven. This data set will be an important research tool on New Mexico-based environmental and planning issues, as well as a valuable asset to the proposed consortium on applied geography.

Dr. Rodman Snead just published a synopsis of the physical geography, economic geography, and cultural environments of New Mexico in the New Book of Knowledge published by Grolier Incorporated of Danbury, Connecticut.

Dr. Cullen's paper on "Distinguishing Energy Conservation Attitudes" has been selected as one of 35 papers considered to be "newsworthy" by the AAG Program Committee. It will be used in public relations efforts to promote the 1985 meeting in Detroit.

DATE: May 9, 1985

TO: Charlene McDermott, Dean, Graduate Studies

FROM: Stan Morain, Chairman, Geography

SUBJECT: Tri-State Land Resource Consortium

Attached is the "final" draft of the geography consortium planning document and progress report. It hasn't changed in any substantial way from the draft I shared with you a few weeks ago. The hope of our planning group is to conserve human, capital, and financial resources while enhancing our educational and research capacities through sharing. As always, however (and I have to chuckle as I say it), there is an up-front cost! We haven't achieved any economy yet and we're not likely to unless we are willing to invest in the prospect. Our "hidden" agenda further hopes that you will be in direct communique with Deans Woolf and Nellor to assess the level of mutual moral and financial support.

I certainly understand the financial crunch we all face. To the extent that I can crystal ball the future (and because TAC also stands to gain from the consortium), I will commit the necessary round trip airfare to Tempe and Reno for myself from TAC's FY87 travel funds. This will reduce our request to you to about $1,000. If we handle the situation as we have this year, I suggest we approve the money as, and when, needed during 85/86. In the longer term, however, it would be more desirable to line item the consortium and include it in the geography department budget.

I will be more than happy to discuss and/or clarify any questions you have, and look forward to your reaction to our effort.

jma

cc: Brad Cullen - Geography
Rick Richardson - Architecture and Planning

2 May 1985

To: Charles M. Woolf, Dean, Graduate College, Arizona State University

John E. Nellor, Dean, Graduate School and Director of Research, University of Nevada at Reno

A. Charlene McDermott, Dean of Graduate Studies, University of New Mexico at Abuquerque

FROM:

Frank T. Aldrich Patricia A. Gober John F. Lounsbury	Arizona State University
Glen W. Atkinson Phillip E. Davis Christopher H. Exline	University of Nevada, Reno
Bradley T. Cullen Stanley A. Morain Richard Richardson	University of New Mexico, Albuquerque

Enclosed you will find a statement of the activities of the Land Use Consortium group. This document reviews the past year's activities and proposes the continuation of inter-university cooperation for the next two academic years. It is envisioned that there will be three, two-day meetings each year on a rotation basis at each of the three institutions. Day one will be a business meeting to develop proposals for external funding and crystalize mechanisms for cooperative efforts. Day two will allow participants (3 from each school) to give seminars, work with graduate students, and share research and teaching expertise at the host campus.

It will cost between $1400 and $1600 per institution, depending on location, to continue the formative and developmental work envisioned for next year. This would provide travel costs and per diem for three people for two, two-day meetings. No costs are involved for the host institution.

The consortium group will proceed slowly and carefully in order to keep the meetings small and productive.

TRI STATE LAND RESOURCE CONSORTIUM

Introduction, Statement of Rationale

The rapid increase of population in the southwest is one of the more remarkable demographic trends currently taking place in the country. The states of Nevada and Arizona rank first and second respectively in the nation in percentage of population growth since 1970. Further, recent projections indicate that only three states in the country will increase their population over 100 percent between now and the year 2000.[1] Nevada (140.1% increase) and Arizona (105.5% increase) are included in this category. The population of New Mexico has grown 7.4 percent since the 1980 census, making it one of the ten fastest growing states in the nation in the 1980s. The causes of this population growth include both a variety of compelling factors in the southwest as well as repelling factors in many of the eastern and midwestern states. It is projected that the population of most of the midwestern and eastern states will grow very slowly, and nine will actually experience a noticeable loss in population by 2000.

It is axiomatic that land use change and land use problems are directly related to population growth. Rapid population growth is the most important single factor influencing land use patterns. To complicate the situation further, unlike most sections of eastern, midwestern and southern United States, the

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1 United States Census Bureau Report, Sept., 1983.

physical environments of Arizona, New Mexico, and Nevada are not well-suited to a relatively even distribution of population. Much of the land is either desert, mountainous, or under control of the federal government. There are only a few localities that can support large populations. As a result, the Phoenix and Tucson Standard Metropolitan Areas (SMA) presently represent about 75 precent of Arizona's population. Similarly, the Las Vegas and Reno SMAs account for almost 85 percent of Nevada's existing population; and the Albuquerque and Las Cruces SMAs represent over 42 percent of the total population of New Mexico. These six SMSAs will absorb over 3/4 of the total population growth of the three states in the next few years.

Rapid population growth in a region already short of well-watered and level land results in a variety of land use problems such as urban sprawl; loss of highly productive agricultural or pastoral lands; juxtaposition of incompatible land uses; lack of coherent land use policies between local government and state or federal policies; land developments incompatible to the physical, economic or social environments; and the sound and orderly development of the resource base. Further, developments on increasingly marginal lands, such as mountainous areas surrounding valleys, and encroachment on lands adjacent to Indian Reservations will cause additional conflicts and land use issues.

One of the important responsibilities of the major state universities is to devote efforts to defining and solving these problems. Research and instructional programs need to address the pressing and critical problems facing local communities, the

state, and the region. Fortunately, the three universities already have well-established, active and viable programs at the master's level focusing on land use planning and applied geography. These programs have similar themes and commonalities in subject matter, research methodologies and instructional frameworks. They are concerned with similar problems associated with rapid population increase and subsequent land use dynamics. It seems logical, therefore, that cooperative efforts should be developed to improve the quality, depth and breadth of these existing graduate programs. With this goal in mind, the representatives from the three universities met on three occasions (September 28 at Arizona State University, November 16 at the University of New Mexico, and February 8 at the University of Nevada, Reno) to discuss possible mechanisms of cooperation. These discussions and associated investigations resulted in defining means of cooperation that could be put into operation almost immediately, others that would require more planning and modest internal funding, and still others of a long range nature that would require larger amounts of external backing.

CURRENT ACTIVITIES

In addition to these meetings and discussions held during this year, a compendium of information has been collected regarding each participant, department and institution. This material is presented in the two volumes that comprise the appendix.

FUTURE PLANNING

The dynamics of current and future development in the southwest present a major long range opportunity for the three

universities participating in this cooperative effort. The result of initial meetings and discussion reveals not only strong common interests, but also complementary skills, teaching programs, research activities, and supporting technology. With careful planning, along with sharing of resources and faculty, the participants may work toward the formation of a consortium to address regional problems and opportunities.

THE IMMEDIATE FUTURE (1985-1987)

Initial activities, during the next two years, will include holding topical meetings to encourage the exchange of ideas and to develop an agenda for collaborative research. The consortium may sponsor an annual conference aimed at identifying critical regional development and resource issues, and proposing methods to address them. The results will not only contribute to the development of solutions to the region's growth and land use problems, but will also strengthen existing programs in the three participating institutions.

Operationally, three faculty representatives will continue to represent each institution. These individuals will serve as the communications network and central core of the consortium. Their initial and most important function will be to maintain a high level of awareness within their faculty and student constituencies and to report to respective chairs and deans on consortium activities. These representatives should be the first point of contact for faculty and student exchanges; summer school programs and field camps; semester-by-semester course offerings; internship opportunities; MA committee needs; etc. In order to

minimize miscommunication, contacts between institutions relating to consortium matters should be placed solely in the hands of the representatives, who then communicate needs or desires to their chair, appropriate faculty, or other academic and administrative units on campus.

Exchange Of Faculty for Short Term Projects

Minimal resources are needed for an exchange of faculty speakers to participate in seminars, lectures, classes and colloquia. We anticipate that each campus would be asked to provide support for no more than two visits per years. The benefits would be the following: first, a better working relationship among the participating faculty members of each campus would be established. Ideas could be exchanged and cooperative research would be encouraged. Development in land use issues in each state could be shared. Second, students in each program could be exposed to the work of faculty from other programs. Third, administrators who are supporting the program on their campus could be made aware of the benefits of the cooperative program. Forth, practicing land use professionals in each area could benefit from the presentations of faculty from other universities, and be made aware of the interest and capabilities of graduates from each program.

Exchange of Faculty to Serve on Graduate Student Supervisory Committees

The advantages of having faculty from the three campuses on graduate student supervisory committees are many and varied. The pool of expertise available to the student, for instance, could

be broadened and strenghtened. In addition, the student would have a contact person from more than one campus and this in turn might well pave the way for the use of very specialized resources, e.g. unique library collection, known mainly to resident faculty on a particular campus.

Graduate programs would be further strengthened in that faculty from a region other than the student's campus residence could bring into play a contact network of area professionals beyond those individuals found in the local area. In short, such exchanges of faculty on graduate committees would widen the scope of human and technical resources available to the student.

Diverse committee membership would also be of substantial benefit to the participating faculty members. Sharing ideas, making new contacts and developing additional sources of data and information would surely have a positive impact on the faculty as well as students. In a real sense, faculty exchange entails a fairly small cost when compared to the potential gains found in creating both unique graduate committees and an intense level of faculty interactions.

Annual or Semi-Annual Meetings

It is important that this body continue to meet on a semi-annual basis. Continuity of contact is essential if the products of the initial three meetings are to be nurtured and cultivated.

A semi-annual meeting pattern could provide the setting for a gathering of the "Board of Directors" of an expanded tri-state land use planning/applied geography program or, at some point, institute. The second meeting of a given year may be devoted to such tasks as the development and management of a regional

publication.

Semi-annual work sessions would be largely in the same vein as the initial three meetings: carefully organized, no frills, highly productive meetings. Periodic personal contact is an essential element in maintaining the momentum and realizing the long range concepts that were generated during the three 1984-85 sessions.

OTHER STEPS

When relationships among the members become more established, the organizational structure solidifies the participants plan to acquire external research support to address land use dynamics and population growth issues. Contractual relationships between individuals in separate institutions will eventually require instituting agreements on administration, overhead, and management of joint projects.

Cooperative research projects may include studying national and regional migration patterns, water allocation policies, the environmental effects of rapid population build-up, and the dynamics of urban sprawl. The members may also address jurisdictional issues related to the use of public lands, as well as the rate of exploitation of the region's natural resource base. With increasing pressure on regional growth, rapidly expanding urban areas will have to address the role of state and federal governments when forming local growth policies. Conflicts will center on establishing rational and consistent land use policies.

The organizing committee envisions such activities as summer

field camps, creation of a periodical publication on land-use in the southwest, creation of an institute for proposal and project development, creation of a joint geographic information system (GIS), and semester or academic year exchanges of faculty and students

LONG TERM OPTIONS

In the long run, the consortium members intend to establish a permanent institute to address these issues. The structure for such an endeavor may not entail placing the organization in a particular location, and applied research activities could be based in all three universities. This research institute could operate "without walls" and provide the support, intellectual currency, regional location, and funding necessary to carry out innovative applied research.

Funding for the consortium and proposed institute will be generated from external sources with the respective universities providing limited financial assistance for regional meetings, topical conferences, and administrative support for the research institute. The anticipated administrative and financial requirements are modest compared to the long-term benefits expected to accrue to the universities and departmental programs. Development in fragile environments, loss of productive lands, incompatible urban and rural land uses, and most importantly, the concentrated population explosion in major urban centers set the stage for this unique consortium. The participants intend to collaborate and cooperate in an effort to define strategies to solve these pressing problems facing the local communities, the respective states, and the region.

CONCLUSIONS

Throughout its deliberations, the organizing committee has viewed the applied geography/land-use consortium as an adjunct to the academic programs parented by their respective departments. We have never attempted, nor desired, to create a regional institute that would overpower existing programs or diminish their funding base. Rather, the consortium's sole intent is to maximize existing human, institutional, and financial resources and to augment them where possible through efficient networking. The avenue for success is a positive and progressive attitude on the part of the members. Chairs, deans, and other administrative officers must be aware that the consortium cannot happen without their support, and that some minimal resources and stimuli will have to be expended to nurture its success.

University of New Mexico

SOUTHWEST INSTITUTE

THE RIO ARRIBA–RIO ABAJO IN NEW MEXICO

June 3 through June 28, 1985

Program
Registration information
Faculty

Dr. Jerry L. Williams
UNM–Southwest Institute
Department of Geography
Bandelier West
University of New Mexico
Albuquerque, NM 87131

The Southwest Institute is a four-week undergraduate and graduate interdisciplinary symposium for teachers, residents, and scholars interested in a concentrated study of a unique area of the Southwest. The University of New Mexico program will focus on the region of the Southwest which includes New Mexico, Arizona, southwestern Colorado, and the high plains of Texas. The Institute was created to provide a common forum for participants from faculty and scholars who teach, research, and write about the Southwest.

The subject for the summer of 1985 will be the regions of New Mexico referred to by the early Spanish settlers as the "Rio Arriba--Rio Abajo" (Upper River--Lower River). Subsequent institutes are intended to concentrate on and in other areas of the Southwest with most of the lecture series on the UNM campus and the base of field operations shifting to facilities at other campuses. Plans for future institute topics and locations are: "The Borderlands" with field operations from New Mexico State University; "The San Juan Basin" using facilities at San Juan College; "The Canyonlands" with field operations out of Northern Arizona University; and "The Gateway Plains" including Highlands University.

The Rio Arriba--Rio Abajo is the area of the Rio Grande drainage between the present cities of Taos and Socorro. The upper and lower levels are distinguished by the natural break in elevation of the Rio Grande valley at La Bajada escarpment twelve miles south of Santa Fe. This northcentral core of New Mexico is rich in natural diversity and has been a settlement hub for Indian, Hispanic, and Anglo culture groups.

The Southwest Institute is sponsored by the UNM College of Arts and Sciences and supported by the Graduate School and the Colleges of Education, Fine Arts, and Architecture and Planning. The Southwest Hispanic Research Center, Native American Studies, the General Library, Law School, and Women's Studies are associated with the program. The Institute has pooled the resources of a broad range of faculty in order to examine the geology, geography, archaeology, anthropology, history, material and social culture, literature, and fine arts of the Rio Arriba-Rio Abajo.

The program is designed in two parts. The first half will focus on topics providing a general overview of the prehistoric and historic elements or events, as well as selected research interests of the invited lecturers. The second half will focus on specific topics associated with settlement in the Rio Grande valley. The lecture series in each half of the program will be illustrated by three-day field investigations supervised by faculty who are experienced in field research in the study area. Program scheduling is planned to yield maximum exposure to the student of lecture material, exhibits, and cultural performances. The lectures and discussions are presented between 8:45 a.m. and noon with day-long exhibits displayed at a nearby location, and with evening performances beginning at 7 p.m. The afternoons will be available for the students to use for library work or to read the assigned literature for the succeeding day's lectures.

The Institute's faculty is an outstanding one, composed of well-known scholars from the various disciplines. Each will integrate his or her special area of interest into the overall picture of the Rio Arriba--Rio Abajo, providing the participants with a broader and deeper understanding of this unique area. The Institute carries up to six semester-hours of graduate or undergraduate credit which may be earned in either Arts and Sciences, Fine Arts, Education, or Architecture and Planning.

GENERAL INFORMATION

REGISTRATION

Participants may register for three or six hours of credit through one of the following departments and their advertised listings. Summer school preregistration will begin late April. For those who are not currently enrolled at UNM; summer registration will begin the first week of May. It may be advisable for applicants who are not actively in a UNM graduate or undergraduate program to register for the Institute credits on a non-degree status. A non-degree status application is enclosed to help expedite your registration. If you wish to begin a graduate program you will have to make arrangements with the department into which you wish to be accepted. If you intend for these credits to apply to a program you are currently enrolled in, you must clear this with your faculty advisor.

College	Department	Call No.	Course No.	Course Title	Instructor
Arts and Sciences	American Studies	01004	497-110	SW Institute/Lecture	Weigle
		01005	497-111	SW Institute/Field	Biebel
		01010	651-110	SW Institute/Lecture	Weigle
		01011	651-111	SW Institute/Field	Biebel
	Anthropology	01016	497-101	SW Institute/Lecture	Alvarado
		01017	497-129	SW Institute/Field	Kent
		01018	597-101	SW Institute/Lecture	Alvarado
		01019	597-129	SW Institute/Field	Kent
	Geography	01126	491-101	SW Institute/Lecture	Williams
		01127	492-101	SW Institute/Field	Williams
		01128	551-101	SW Institute/Lecture	Williams
		01129	552-101	SW Institute/Field	Williams
	History	01148	496-133	SW Institute/Lecture	Kessell
		01149	496-134	SW Institute/Field	Kessell
Architecture and Planning	Architecture	01745	429-104	SW Institute/Lecture	Pillet
		01746	429-105	SW Institute/Field	Pillet
		01749	551-104	SW Institute/Lecture	Pillet
		01750	551-105	SW Institute/Field	Pillet
Fine Arts	Art History	01609	429-102	SW Institute/Lecture	George
		01610	429-103	SW Institute/Field	George
		01613	529-102	SW Institute/Lecture	George
		01614	529-103	SW Institute/Field	George
Education	Ed. Foundations	20838	591-105	SW Institute/Lecture	Pilz
	C.I.M.T.E.	01781	591-101	SW Institute/Field	Suina

All courses listed are for three hours credit. The dual listings for most departments are to assure that six hours of both undergraduate credits and six hours of graduate credits are available for each registrant. The history courses are accepted at both levels. Participants may not take the field course without enrolling in the lecture series. Whereas the lecture portion has an open enrollment to the lecture hall capacity (300 students) and has no prerequisites, the field course is limited to the first 100 registrants.

All students in the lecture series will be evaluated by two objective quizzes on the lectures and assigned readings. All participants in the field portion of the course will be expected to produce a short paper on a unique element of the Rio Arriba—Rio Abajo in their field of study. Suggested topics, as well as additional requirements to distinguish graduate from undergraduate levels, will be established by field faculty from the department the student registered with.

TUITION AND FEES

Registration costs for the lecture series will total $102.00 for three semester-hours of credit (graduate or undergraduate) at current tuition rates of $34 per credit hour. (If tuitions are raised by the state legislature, it will go into effect in the Summer session.) The additional three semester-hours of credit for the field program will total another $102.00. Six days of transportation and two nights of lodging will cost each field registrant a maximum of $90.00. Each participant will be responsible for their meals and food costs. The field fee will be collected from field participants on the first day of the Institute.

The two fee options for the Institute are:

$102.00 for three semester-hours of lecture series credit; and

$294.00 for six semester-hours of lecture and field credit including transportation and lodging.

FACILITIES AND HOUSING

The Institute will meet in the centrally-located Anthropology Building on the main campus of the University of New Mexico. Out-of-town applicants may request information about off-campus lodging by phoning the Director at (505) 277-3105 or the Southwest Institute Office at 277-6716. If there is sufficient demand for housing, the Institute will try to arrange low-cost dormitory units for the four-week period.

PARKING AND TRANSPORTATION

If on-campus parking is desired, individual participants will make arrangements with the Parking Services Office (1821 Roma) by phoning (505) 277-2241. There is a free lot on the North Campus which is connected to the Institute by shuttle bus.

PROGRAM

LECTURE SERIES: PART I

Except where noted, all lectures are in the Anthropology Building.

MONDAY, JUNE 3
- 7:30 a.m. (Room 178) "Registration and Coffee"
- 8:45 a.m. (Room 163) "Welcome" by UNM Administrator
- 9:00 a.m. (Room 163) "Geologic History and Landforms" by Barry Kues
- 10:00 a.m. (Rooms 163/178) "Discussion"
- 10:30 a.m. (Room 163) "Rio Grande Paleontology" by Barry Kues
- 11:30 a.m. (Rooms 163/178) "Discussion"

TUESDAY, JUNE 4
- 8:00 a.m. (Room 178) "Coffee and Conversation"
- 8:45 a.m. (Room 163) "Climate and Hydrology" by Steve Thompson
- 9:45 a.m. (Rooms 163/178) "Discussion"
- 10:30 a.m. (Room 163) "Rio Grande Flora and Fauna" by William Martin
- 11:30 a.m. (Rooms 163/178) "Discussion"

WEDNESDAY, JUNE 5
- 8:00 a.m. (Room 178) "Coffee and Conversation"
- 8:45 a.m. (Room 163) "Rio Grande Anasazi - Part 1" by Susan Kent
- 9:45 a.m. (Rooms 163/178) "Discussion"
- 10:30 a.m. (Room 163) "Rio Grande Anasazi - Part 2" by Susan Kent
- 11:30 a.m. (Rooms 163/178) "Discussion"

THURSDAY, JUNE 6
- 8:00 a.m. (Room 178) "Coffee and Conversation"
- 8:45 a.m. (Room 163) "Pueblo Social Organization" by Anita Alvarado
- 9:45 a.m. (Rooms 163/178) "Discussion"

THURSDAY, JUNE 6 (continued)
- 10:30 a.m. (Room 163) "Native American Architectural and Social Change" by Ted Jojola
- 11:30 a.m. (Rooms 163/178) "Discussion"

FRIDAY, JUNE 7
- 8:00 a.m. (Room 178) "Coffee and Conversation"
- 8:45 a.m. (Room 163) "Spanish Contact and Colonization" by John Kessell
- 9:45 a.m. (Rooms 163/178) "Discussion"
- 10:30 a.m. (Room 163) "Spanish Material Culture" by Marc Simmons
- 11:30 a.m. (Rooms 163/178) "Discussion"

MONDAY, JUNE 10
- 8:00 a.m. (Room 178) "Coffee and Conversation"
- 8:45 a.m. (Room 163) "Hispanic to Anglo Transition" by Tomas Atencio
- 9:45 a.m. (Rooms 163/178) "Discussion"
- 10:30 a.m. (Room 163) "Territorial Architectural Perspectives" by Christopher Wilson
- 11:30 a.m. (Rooms 163/178) "Discussion"

FRIDAY, JUNE 14
- 8:00 a.m. (Room 178) "Coffee and Conversation"
- 8:30 a.m. (Room 163) "Early Tourism in the Rio Grande" by Marta Weigle
- 9:30 a.m. (Rooms 163/178) "Discussion"
- 10:00 a.m. (Room 163) "20th Century Rio Grande" by Charles Biebel
- 11:00 a.m. (Rooms 163/178) "Discussion"
- 11:15 a.m. (Room 163) "Mid Program Evaluation"

PROGRAM

LECTURE SERIES: PART II

MONDAY, JUNE 17
- 8:00 a.m. (Room 178) "Coffee and Conversation"
- 8:45 a.m. (Room 163) "Rio Grande Artistic Traditions - I by Douglas George
- 9:45 a.m. (Rooms 163/178) "Discussion"
- 10:30 a.m. (Room 163) "Rio Grande Artistic Traditions - II by Douglas George
- 11:30 a.m. (Rooms 163/178) "Discussion"

TUESDAY, JUNE 18
- 8:00 a.m. (Room 178) "Coffee and Conversation"
- 8:45 a.m. (Room 163) "Spanish Language and Culture" by Erlinda Gonzales-Berry
- 9:45 a.m. (Rooms 163/178) "Discussion"
- 10:30 a.m. (Room 163) "Rio Grande Folklore" by Rowena Rivera
- 11:30 a.m. (Rooms 163/178) "Discussion"

WEDNESDAY, JUNE 19
- 8:00 a.m. (Room 178) "Coffee and Conversation"
- 8:45 a.m. (Room 163) "Cultural Issues in Education" by Gladys Levis-Pilz
- 9:45 a.m. (Rooms 163/178) "Discussion"
- 10:30 a.m, (Room 163) "Pueblo-Hispanic Education Issues" by Joseph Suina and Leroy Ortiz
- 11:30 a.m. (Rooms 163/178) "Discussion"

THURSDAY, JUNE 20
- 8:00 a.m. (Room 178) "Coffee and Conversation"
- 8:45 a.m. (Room 163) "Early Architecture as Cultural Expression" by Michel Pillet
- 9:45 a.m. (Rooms 163/178) "Discussion"
- 10:30 a.m. (Room 163) "Cultural Movements in the Rio Grande" by Vera Norwood
- 11:30 a.m. (Rooms 163/178) "Discussion"

FRIDAY, JUNE 21
- 8:00 a.m. (Room 178) "Coffee and Conversation"
- 8:45 a.m. (Room 163) "Rio Grande Land Grant Issues" by G. Em Hall
- 9:45 a.m. (Rooms 163/178) "Discussion"
- 10:30 a.m. (Room 163) "Water Rights and Land Issues" by Charles Dunars
- 11:30 a.m. (Rooms 163/178) "Discussion"

MONDAY, JUNE 24
- 8:00 a.m. (Room 178) "Coffee and Conversation"
- 8:45 a.m. (Room 163) "Pueblo Economic Development Issues" by Ted Jojola
- 9:45 a.m. (Rooms 163/178) "Discussion"
- 10:30 a.m. (Room 163) "Land Use Planning Issues" by Paul Lusk
- 11:30 a.m. (Rooms 163/178) "Discussion"

FRIDAY, JUNE 28
- 8:00 a.m. (Room 178) "Coffee and Conversation".
- 8:45 a.m. (Room 163) "Political Changes in the Rio Arriba--Rio Abajo" by Dan Lopez
- 9:45 a.m. (Rooms 163/178) "Discussion"
- 10:30 a.m. (Room 163) "Closing Comments" (Jerry Apodaca) "Final Program Evaluation and Assessment"

PROGRAM

EXHIBITS AND PERFORMING ARTS

MONDAY, JUNE 3
9:00 a.m. to 5:00 p.m. (Room 178)
Exhibit: "Fossils and Geologic Elements", arranged by Barry Kues

TUESDAY, JUNE 4
9:00 a.m. to 5:00 p.m. (Room 178)
Exhibit: "Elements of the Rio Grande Ecosystem"
7:00 p.m. (Room 163)
Performance: "Films of the Rio Arriba- Rio Abajo"

WEDNESDAY, JUNE 5
9:00 a.m. to 5:00 p.m. (Room 178)
Exhibit: "Rio Grande Anasazi Pottery", arranged by Stewart Peckham
7:00 p.m. (Room 163)
Lecture: "Rio Grande Ceramics", by Stewart Peckham

THURSDAY, JUNE 6
9:00 a.m. to 5:00 p.m. (Room 178)
Exhibit: "Pueblos Craft Market", arranged by Agnes Dill
7:00 p.m. (Room B-117/ Fine Arts Building)
Performance: Pueblo Music and Dance", narrated and arranged by Agnes Dill

FRIDAY, JUNE 7
5:00 p.m. (at the home of Dr. Marlis Mann in Corrales)
Covered Dish Buffet: "Foods of the Rio Arriba- Rio Abajo"

MONDAY, JUNE 10
9:00 a.m. to 5:00 p.m. (Room 178)
Exhibit: "Historic Maps and Charts", arranged by Peter Ives
7:00 p.m. (central plaza of the UNM campus)
Performance: "Witchcraft of the Rio Arriba", narrated by Charlie Carrillo

FRIDAY, JUNE 14
9:00 a.m. to 5:00 p.m. (Room 178)
Exhibit: "Early Travel and Tourism in New Mexico"

MONDAY, JUNE 17
9:00 a.m. to 5:00 p.m. (Room 178)
Exhibit: "Hispanic Art of the Rio Grande", arranged by Charlie Carrillo
7:00 p.m. (Room 163)
Performance: "Films of the Rio Arriba- Rio Abajo"

TUESDAY, JUNE 18
9:00 a.m. to 5:00 p.m. (Room 178)
Exhibit: "Novels of the Rio Arriba- Rio Abajo", arranged by Carol Joiner
7:00 p.m. (Room 163)
Performance: "Folklore of the Rio Arriba", narrated by Rowena Rivera

WEDNESDAY, JUNE 19
9:00 a.m. to 5:00 p.m. (Room 178)
Exhibit: "Nonfiction of the Rio Arriba- Rio Abajo"
7:00 p.m. (Room B-117/ Fine Arts Building)
Performance: "Hispanic Folk Dance", arranged by Erlinda Gonzales-Berry

THURSDAY, JUNE 20
9:00 a.m. to 5:00 p.m. (Room 178)
Exhibit: "Historic Photos of the Upper Rio Grande", arranged by Bill Tydeman
7:00 p.m. (Room 163)
Performance: "Traditional Fiddle Music", narrated by Peter White

PROGRAM

FIELD COURSE OF TWO THREE DAY SESSIONS

SESSION ONE

Tuesday, June 11
Wednesday, June 12
Thursday, June 13

Field investigations are to coordinate with the lectures presented during the first portion of the course and will concentrate on the general background of the Rio Arriba- Rio Abajo. Routes and field sites have been selected by teams comprised of geologists, archaeologists, naturalists, historians, and specialists on pueblo socioeconomic conditions.

Rio Abajo Sites
- Isleta Pueblo
- Tome Plaza
- Sevilleta Wild-life Refuge
- Abo Canyon
- Abo National Monument

Rio Arriba I Sites
- Cochiti Dam
- Santuario and Trampas
- Fort Burgwin
- Rio Grande Gorge
- Ojo Caliente Hotel (overnight)

Rio Arriba II Sites
- San Juan Pueblo
- White Rock Overlook
- Bandelier Burn Area
- Bandelier Natl. Monument
- Ranchos de los Golindrinas

Faculty/ Field Supervisors
- Charlotte Benson
- Charles Biebel
- Scott Brown
- Sally Davis
- John Hawley
- Ken Hunt
- Susan Kent
- David Love
- Joe Sando
- Dan Scurlock
- Marc Simmons

SESSION TWO

Tuesday, June 25
Wednesday, June 26
Thursday, June 27

Field investigations are to coordinate with the lectures presented during the second portion of the course which will focus on selected specialized elements of the Rio Arriba- Rio Abajo. Routes and field sites will reflect the uniqueness of the art, architecture, special collections, material culture, education, and folk culture in the area.

Rio Abajo Sites
- Iseleta Pueblo
- Belen/ Chaves School
- Belen/ Harvey and RR Museum
- Mountainair WPA
- Mountainair Shaffer Hotel
- Quarai Ruins

Rio Arriba I Sites
- Cochiti Pueblo
- Sta.Fe/ Inst. of American Indian Art
- Sta.Fe/ School of American Rsrh.
- Santuario and Plaza de Cerro
- Cordova
- Ojo Caliente Hotel (overnight)

Rio Arriba II Sites
- El Rito/ NNMCC
- Abiquiu Mosque
- Ghost Ranch (Blackies)
- Ghost Ranch (O'Keefe's)
- Ghost Ranch Ellis Museum

Faculty/ Field Supervisors
- Charles Biebel
- Charles Carrillo
- Douglas George
- Peter Ives
- Marlis Mann
- Michel Pillet
- Boyd Pratt
- Dan Scurlock
- Joe Suina
- Bill Tydeman

SPECIAL WEEKEND FIELD TRIPS

Saturday, June 8
Saturday, June 22

(9:00 a.m. to noon) Selected nearby field excursions will be available on a minor fee basis if there is sufficient interest. Sign up sheets available on the first day of the Institute.

Anita L. Alvarado, Ph.D., associate professor of anthropology at the University of New Mexico, has published articles on Hispanics and Indians including "The Status of Hispanic Women in Nursing" and "Cultural Determinants of Population Stability Among the Havasupai Indians". Her current research is on ritual religous drama in modern and colonial Southwest, and on health, and culture and ethnicity in Southwest populations.

Tomas Atencio, M. Social Work, is visiting instructor in sociology and a member of the southwest hispanic research institute at the University of New Mexico. His research interest is in oral history, mental health models, and on the Rio Grande as a cultural corridor between the Southwest and Latin America.

Charlotte Benson, Ph.D., assistant professor of anthropology at the University of New Mexico, authored Explaining Organizational Change: Anasazi Community Patterns and several scholarly articles on anasazi social organization and on archaeological theory of organizational change. Her current work is on Anasazi and Hohokam social organization and on prehistoric ceramics, mobility and agriculture in the Southwest.

Charles Biebel, Ph.D., associate professor of american studies at the University of New Mexico, has edited The Multicultural Southwest: A Reader and authored articles on Southwest urban change and on cultural values. He is presently completing research on Albuquerque during the Great Depression.

Scott J. Brown, M.S., is public information supervisor for the New Mexico Department of Game and Fish. He has published several wildlife articles and worked on cooperative training programs between the state and the Navajo nation. He currently is working on environmental education and on wildlife conservation in New Mexico.

Charlie M. Carrillo, M.A., is an ethnoarchaeologist and hispanic artist. He has published several small articles on archaeology, ethnohistory, and art. His current research is on historic sites of the Chama Valley, on a historic building survey of Anton Chico, and on specific santeros of northern New Mexico.

Sally M. Davis, is an educational specialist and instructor in pediatrics at the University of New Mexico Medical Center. She is the director of the school-based adolescent health program at Laguna and Acoma and is the editor of Healthwise, A Bulletin for School Health. Her current research is on a cardiovascular project in the Navajo checkerboard area and on school absenteeism and alcholol and substance abuse at Laguna-Acoma and at the Bernalillo school systems.

Agnes Dill, a resident of Isleta Pueblo, is an ethnohistorian and lecturer in children's programs at the Pueblo Cultural Center. She is a retired school teacher whose current work is on elderly problems at Isleta Pueblo. She serves as a native american consultant to the Albuquerque International Visitor's Council.

Charles T. DuMars, J.D., professor of law and codirector of the natural resources center of the University of New Mexico, has published Pueblo Indian Water Rights: Struggle for a Precious Resource and numerous articles on land titles, including "Land Grant Problems: Nature and Extent". His research is continuing on land titles and water rights in New Mexico.

Douglas R. George, M.A., assistant professor of art and art history at the University of New Mexico, has directed summer conferences at Ghost Ranch on "Artistic Traditions in the Southwest": the title for a book currently in preparation. His research focus is on intercultural relations during the New Mexico territorial period and the impact of each culture on the art of others.

Erlinda Gonzales- Berry, Ph.D., is associate professor of spanish and coordinator of spanish for bilinguals in modern and classical landuages at the University of New Mexico. She has published on diverse subjects such as "Caras Viejas y Vino Nuevo: Journey Through a Disintegrating Barrio" and "Perres y Antiperres: The Voice of the Bard". Currently she is writing on New Mexico Hispanic writers, and on Chicano discourse and its' impact on Chicano literature.

G. Emlen Hall, J.D., associate professor of law at the University of New Mexico, has authored Four Leagues of Pecos and several articles in scholarly journals on land surveys and speculation in the Southwest, including "Liberals and Pueblos, 1820 - 1829". He is continuing his research on law and society in New Mexico during the 1820's.

John W. Hawley, Ph.D., senior environmental geologist and adjunct professor of geology at the New Mexico Bureau of Mines and Mineral Resources and New Mexico Tech, has authored or coauthored a long list of articles and technical reports on quarternary geology, geomorphology, and hydrogeology, including Guidebook to the Rio Grande Rift in New Mexico and Colorado. His current research continues in these fields as well as on economic geology of late cenozoic rocks, and on environmental problems related to surface mining, geologic hazards, and toxic waste disposal.

Ken Hunt is the coordinator for school-based adolescent health programs at Laguna and Acoma and at Bernalillo High School for the department of pediatrics of the University of New Mexico Medical Center. He is a tribal official of Laguna Pueblo and is chairman of the Laguna- Acoma- Canoncita Hospital Board. His current work is on school absenteeism and alcholol abuse among Indian adolescents.

Peter Ives, M.S., is assistant business librarian at Parish Library of the University of New Mexico. His research work is on the American territorial period in New Mexico and on archival collections relating to the business history of the Southwest.

Carol Joiner, M.A. and M.L.S., is currently working with archival collections and New Mexicana in the special collections at Zimmerman Library of the University of New Mexico. She has published on "Historical Markers in New Mexico" and is currently working on collections from mystery writers.

Ted S. Jojola, Ph.D., assistant professor of planning and director of native american studies at the University of New Mexico, is currently researching water rights, economic development, and federal policies toward the american indian. He is also writing about the history of the Pueblo Indian in the Southwest.

Susan Kent, Ph.D., adjunct assistant professor of anthropology at the University of New Mexico, has published Analyzing Activity Areas: An Ethnoarchaeological Study of the Use of Space and numerous articles on her current research concerning cultural change and behavior. She has conducted extensive research among Navajos, Spanish-Americans, and Euroamericans in the Southwest.

John L. Kessell, Ph.D., associate professor of history and editor of the Vargas Project at the University of New Mexico, has authored several books including The Missions of New Mexico Since 1776 and Kiva, Cross, and Crown: The Pecos Indians and New Mexico, 1540 - 1840. His current research is on the life and journals of Diego de Vargas.

Barry S. Kues, Ph.D., associate professor of geology at the University of New Mexico, has published numerous articles on geology and paleontology of New Mexico. He is author of Fossils in New Mexico and coeditor of Advances in San Juan Basin Paleontology. Currently he is working on paleontology of New Mexico and on the history of early geologic exploration in the Southwest.

Gladys Levis-Pilz, Ph.D., assistant professor of educational foundations at the University of New Mexico, has a teaching and research focus on the impact of culture in the classroom. Currently she is working on ethnographic methods in schools, proxemics, and on nonverbal behavior.

Dan Lopez, Ph.D., is secretary of finance and administration for the State of New Mexico. His publications have focused on education and politics including "Education and Politics: A Realistic View" and "State Department of Education and Public School Policy-making in New Mexico: A Political Perspective". His research interests are in the history of New Mexico and in political change.

David W. Love, Ph.D., environmental geologist at the New Mexico Bureau of Mines and Mineral Resources, was coeditor of the Chaco Canyon Field Guidebook and contributor to the survey of the lower Rio Puerco drainage. His current research is on environmental hazards and on the behavior of streams in central and northwestern New Mexico.

Paul E. Lusk, M.Arch., is associate professor of architecture and planning at the University of New Mexico. He has contributed to publications on land use planning in Albuquerque and Bernalillo County, Chama, and in the South Valley of Albuquerque. His current research is on the goals and action plans for the village of San Ysidro in Sandoval County.

Marlis Mann, Ed.D., associate professor in curriculum and instruction in multicultural education at the Univeristy of New Mexico, has published papers on Zuni spatial concepts as implications for bilingual curriculum and on the Navajo past as educational inputs for the future. Her present work is on bicognitive thought or western verses non-western processes on the Zuni and Navajo reservations.

William Martin, Ph.D., professor of biology and curator of the herbarium at the University of New Mexico, authored The Flora of New Mexico (2 volumes), Summer Wildflowers of New Mexico, and Flora of the Sandia Mountains , as well as numerous articles on plant taxonomy and the flora of New Mexico. He is now working on floristics and on the publication series of Summer Flora in New Mexico and Fall Flora in New Mexico.

Vera Norwood, Ph.D., assistant professor of american studies and assistant provost at the University of New Mexico, has published on women and environemnt in the Southwest. She is coediting a book on Visions of Landscape: Women Writers and Artists of the Southwest, 1880 - 1980.

Leroy I. Ortiz, Ph.D., associate professor in curriculum and instruction in multicultural teacher education at the University of New Mexico, has researched and published in sociolinguistics, literacy, bilingual and bicultural education, and in curriculum development at the elementary school level. He currently is coauthoring a book on the Sociolinguistics of Literacy: An Historical and Comparative View.

Stewart L. Peckham, Ph.D., assistant associate director, museum of Indian arts and culture of the Museum of New Mexico, has published numerous technical papers on archaeological excavations in New Mexico over the past 30 years. His current research is on the archaeology of the Chuska Valley in northwestern New Mexico, on the prehistoric Puye settlement of the Pajarito Plateau, and on Pueblo pottery traditions.

Michel L. Pillet, M.Arch., visiting professor of architecture at the University of New Mexico, is the author of several articles on Southwest architecture including "Pueblo House Design as a Response to the Arid Zone Climate", and "Housing in Arid Lands". His research interest is on architecture of the Southwest until 1821, with a particular focus on Chaco Canyon.

Boyd C. Pratt, M.A., architectural historian, is the coauthor of the New Mexico Historic Building Inventory Manual which was prepared while he was the historical architect with the New Mexico State Historical Preservation Office. His current research is on New Mexico venacular architecture.

Rowena Rivera, Ph.D., visiting associate professor of modern and classical languages at the University of New Mexico, has authored or coauthored several articles on hispanic culture in New Mexico including "Study of New Mexican's Folklore and the Contribution of Vicente T. Mendoza" and "El Viejo Vilmas and the Social Context of Riddling in Nineteenth Century New Mexico". She has a book forthcoming on Penitente Organization and Structure, 1845 - 1945.

Joseph Sando, instructor at the Institute ofAmerican Indian Arts, has published The Pueblo Indians, Pueblo Indian Biographies, and the Nee Hemish History of the Jemez Pueblo. His current research is on the migration theories of the pueblos.

Dan Scurlock, M.A., consulting historian and naturalist, has published over thirty articles and reports on Southwest environmental history, ethnobotony, and Spanish colonial settlement and land use. He is presently working on Spanish settlement in the Rio Abajo.

Marc Simmons, Ph.D., occasional visiting professor of history at the University of New Mexico, is the author of Albuquerque: A Narrative History, Spanish Government in New Mexico, Following the Santa Fé Trail: A Guide for Modern Travelers, People ofthe Sun, Yesterday in Santa Fe, Witchcraft in the Southwest, New Mexico: A History, and Southwestern Colonial Ironwork. He is currently completing research on colonial hispanic agriculture in New Mexico.

Joseph H. Suina, Ph.D., assistant professor and coordinator of Indian programs for the College of Education, has published several articles on education and has coauthored The Learning Environment and Instructional Strategies. His current interest is on the impact of Indian language in the school learning experience.

Stephen A. Thompson, Ph.D., assistant professor of geography at the University of New Mexico is currently conducting research on the changing role of the Middle Rio Grande Conservancy in response to changing patterns of water use.

William E. Tydeman, is assistant professor and head of special collections of the general library at the University of New Mexico. His current research is on acquisition of archival material with a particular focus on documentary photography in the American Southwest.

Marta Weigle, Ph.D., professor of anthropology, english, and american studies at the University of New Mexico, has authored, coauthored, or edited Hispanic Villages of Northern New Mexico, Brothers of Light, Brothers of Blood: The Penitentes of the S outhwest, Santa Fe and Taos: The Writer's Era, 1916- 1941, Hispano Folklife in New Mexico, and Hispanic Arts and Ethnohistory in the Southwest. Her current research work is on the New Deal and folk culture, tourism, and New Mexico folklore.

Peter White, Ph.D., associate professor of english and american studies at the University of New Mexico, teaches american and new mexican folklore. He has published on the works of Emerson Hough on the Southwest and is currently coauthoring a book with Marta Weigle on folklore in New Mexico. He has researched and lectured extensively on folkmusic in New Mexico.

Jerry L Williams, Ph.D., associate professor of geography and director of the southwest institute at the University of New Mexico, is the editor of New Mexico in Maps and several articles on land use issues in the mid-Rio Grande region. His current research is on homesteading and land consolidation patterns in New Mexico and on large land subdivisions on urban fringes in the Southwest.

Christopher Wilson, M.A. architectural historian, is the author of History and Preservation in Las Vegas (New Mexico) and of articles on spanish pueblo architectural style and on New Mexico folk houses. His current research interest is on architecture and planning in Albuquerque.

RM2

Annual Report of the Department of Geology

July 1, 1984- June 30, 1985

Cornelis ("Kase") Klein, Chairman

Barry S. Kues, Assistant Chairman

Photograph on cover:

High resolution transmission electron microscope image from the [0001] orientation of a perfectly ordered beryl crystal photographed with a JEOL 2000FX analytical electron microscope. The regions of white contrast correspond to "tunnels" that are deficient in electrons within the beryl structure. These tunnels define the unit cell for the beryl c-axis orientation. Final magnification is approximately 10 million times; one nanometer is equal to ten Ångstroms (or 0.0000001 cm). Photograph courtesy Ian D. R. Mackinnon.

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GENERAL DEPARTMENTAL INFORMATION

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FACULTY AND STAFF OF THE DEPARTMENT OF GEOLOGY

FULL PROFESSORS:

Roger Y. Anderson, Ph.D., Stanford University, 1960.

Douglas G. Brookins, Ph.D., Massachusetts Institute of Technology, 1963.

Wolfgang E. Elston, Ph.D., Columbia University, 1953.

Rodney C. Ewing, Ph.D., Stanford University, 1974.

Klaus Keil, Director, Institute of Meteoritics, Ph.D., Mainz University, 1961.

Cornelis ("Kase") Klein, Ph.D., Harvard University, 1965.

Lee A. Woodward, Ph.D., University of Washington, 1962.

ASSOCIATE PROFESSORS:

Stephen P. Huestis, Ph.D., University of California-San Diego, 1976.

Albert M. Kudo, Ph.D., University of California-San Diego, 1967.

Barry S. Kues, Ph.D., Indiana University, 1974.

Stephen G. Wells, Ph.D., University of Cincinnati, 1976.

ASSISTANT PROFESSORS:

John Geissman, Ph.D., University of Michigan, 1980.

Jeffrey A. Grambling, Ph.D., Princeton University, 1979.

Leslie D. McFadden, Ph.D., University of Arizona, 1982.

Robyn Wright, Ph.D., Rice University, 1984.

Crayton J. Yapp, Ph.D., California Institute of Technology, 1980.

THE CASWELL SILVER DISTINGUISHED PROFESSOR

R. H. Vernon, Professor of Geology at Macquarie University, Sydney, Australia (appointment July 1984 - May 1985).

PROFESSORS EMERITI:

J. Paul Fitzsimmons, Ph.D., University of Washington, 1949.

Vincent C. Kelley, Ph.D., California Institute of Technology, 1937.

Stuart A. Northrop, Ph.D., Yale University, 1929.

Sherman A. Wengerd, Ph.D., Harvard University, 1947.

ADJUNCT PROFESSORS:

Adjunct Professor Jonathan F. Callender, Ph.D., Harvard University, 1975.

Adjunct Associate Professor Edward C. Beaumont, M.S., University of New Mexico, 1948.

Adjunct Associate Professor Frank D. Gorham, B.A., University of Missouri, 1943.

Adjunct Associate Professor Rodney J. Holcombe, Ph.D., Stanford University, 1973.

Adjunct Assistant Professor, Spencer G. Lucas, Ph.D., Yale University, 1983.

Adjunct Professor William C. Luth, Ph.D. Pennsylvania State University, 1963

Adjunct Associate Professor John Shomaker, M.S., University of New Mexico, 1965.

Adjunct Associate Professor Lawrence W. Teufel, Ph.D., Texas A&M, 1979.

RESEARCH ASSOCIATES AND POST-DOCTORAL FELLOWS:

Bryan C. Chakoumakos, Ph.D., Virginia Polytechnic Institute and State University, 1984.

Cyrena A. Goodrich, Ph.D., Cornell University, 1983.

John Husler, Senior Staff Chemist, M.S., University of New Mexico, 1968.

Ian D. R. Mackinnon, Research Scientist, Ph.D., James Cook University, Australia, 1979.

Edward R. D. Scott, Research Scientist, Institute of Meteoritics; Ph.D., University of Cambridge (U.K.), 1972.

Jefferey G. Taylor, Senior Research Scientist, Institute of Meteroritics, Ph.D., Rice University, 1970.

STAFF:

Ruth M. Briggs, Editorial Assistant II

George Carnako, Department Preparator

George H. Conrad, Microprobe Specialist

Katharine H. Downer, Editorial Assistant I

Rosemary A. Griego, Editorial Assistant I

Elaine F. Stewart, Drafting Technician

Earl E. George, Electronics Technician

Gerald G. Gomez, Thin Section Preparator

Esther A. Harrison, Department Secretary

Sally E. Hayes, Accounting Technician

Kenneth K. Kietzke, Thin Section Preparator

Lucy F. Landis, Department Secretary

Spencer G. Lucas, Curator

Linda K. Morris, Department Secretary

Harold Poths, Research Associate

Marguerite G. Swanson, Academic Support Aide

SIGNIFICANT ACHIEVEMENTS

The Geology Department has completed another active and successful year. However, before outlining some of the department's achievements, I must comment on a matter that is already seriously affecting the University at large, and will, undoubtedly, have adverse effects on the Geology Department in the years ahead. I am referring to the continued erosion in faculty and staff salaries at UNM.

What determines the reputation of colleges and departments at UNM (as elsewhere) is the quality of the faculty in these units.. The best faculty produces and attracts the best students, and these become the best alumni, who in the future will support the University. Faculty salaries at UNM have been far behind the rate of inflation for several years. Such erosion undermines the quality of the faculty for various reasons. Clearly, professionals will decide against academic appointments if it becomes clear that it is impossible to adequately support one's family. Others, who do join the academic ranks, will try to raise as much outside income as possible, which in turn has adverse effects on research and teaching. And yet others, who have been with the University for a considerable time, and have indeed done much more than was expected of them (in terms of teaching, research, and service) will be reluctant to locate elsewhere because of already established research facilities and programs at

UNM, and strong personal or family ties to the region. These faculty members, who provide such an important continuum to the institution, are becoming increasingly demoralized because they are not being properly rewarded for their many years of outstanding efforts.

As of this year the Geology Department is still "holding together", but unless there are very clear signals during the academic year ahead that hard-working, bright professionals at UNM will receive proper financial recognition for their efforts, the brightest and most mobile of our members will look around more seriously at opportunities elsewhere (in academia or industry). The less mobile, who are responsible for the continuum of the institution, will become more and more disenchanted, and as such less effective teachers and researchers. If the Geology Department is to retain its momentum in high quality research and teaching, and in the steady rise in national recognition of its programs, considerable additions to salaries and operating expenses in the department must become available over the next several years.

Faculty and scientific staff

The Department of Geology was honored with the appointment of one of its faculty as a Presidential Professor and another as a Presidential Lecturer. Klaus Keil, Professor of Geology and Director of the Institute of Meteoritics, received the honor of a Presidential Professorship, for a 5-year period beginning the academic year 1985-86. Jeffrey Grambling, recently promoted to

Associate Professor (with tenure) received a Presidential Lectureship for a 2-year period beginning 1984-85. Both these faculty members were recognized for the outstanding records they have compiled to date.

Three of our faculty were promoted during 1984-85: Albert M. Kudo to Professor of Geology; Jeffrey A. Grambling to Associate Professor, with tenure; and Crayton J. Yapp to Associate Professor.

Two newly appointed faculty joined our department at the beginning of the fall semester, 1984. John W. Geissman, as Assistant Professor of Geology, with main research emphasis in paleomagnetics/geomagnetics. He came to us from an Assistant Professorship at The Colorado School of Mines (1980-84) and a prior appointment as a Research Associate and Lecturer at the University of Toronto (1979 and 1980). He received his Ph.D. in 1980 from the University of Michigan. The other new addition is Cornelis ("Kase") Klein, who was appointed Professor, and Chairman. Kase Klein, whose main research interests are in the petrology, sedimentology, and geochemistry of Precambrian banded iron-formations worldwide, served for twelve years as Professor of Geology at Indiana University in Bloomington, Indiana (1972 to 1984). Prior to that he was a member of the faculty at Harvard University (1965-1972) as Lecturer, Associate Professor, and Assistant Dean of Harvard College (Senior Tutor of Leverett House). He received his Ph.D. from Harvard University in 1965.

Professor Ron H. Vernon, Distinguished Caswell Silver

Professor, left us in May, 1985. By then he had been a member of our department for approximately one year. In the spring semester he taught a graduate seminar entitled "Microstructural approaches to problems in igneous and metamorphic geology". This course was extremely well received by our students. He also continued his research on aspects of granite, including materials collected from the Sandia Granite. His stay with us was highly successful, and while here, he gave invited lectures at the following institutions:

Albuquerque Geological Society;
V.P.I. & State University, Blacksburg, Virginia;
Memorial University, St. John's, Newfoundland;
Dalhousie University, Halifax, Nova Scotia;
University of New Brunswick, Fredericton, New Brunswick;
Hampshire College, Amherst, Maine;
SUNY at Albany, New York;
U.S. Geological Survey, Menlo Park, California;
University of California, Santa Barbara, California;
Southern Methodist University, Dallas, Texas;
Texas Christian University, Fort Worth, Texas;
University of California, Davis, California;
University of California, Santa Cruz, California;
U.S. Geological Survey, Denver, Colorado; and
University of Illinois, Urbana, Illinois.

During the fall of 1984 we had an international search for a replacement appointment in Structural Geology, to fill the position

vacated by Dr. Jon Callender, who in May 1984 resigned from the department to accept the full-time position of Director of the Museum of Natural History of New Mexico, Albuquerque. We were very pleased that Dr. Christopher Mawer, who received his Ph.D. degree from Monash University, Victoria, Australia in 1981, accepted our offer as Assistant Professor of Geology (in Structural Geology). Since 1981 he has been a postdoctoral fellow, first at the University of Toronto, Ontario, Canada, and subsequently at the University of New Brunswick, Fredericton, New Brunswick. Chris Mawer's extensive professional background has dealt mainly with field mapping and structural analysis in areas of considerably different metamorphic grade, structural style and tectonic setting. His appointment to our department will be a strong complement to the field-based program that has been so well developed by Jeffrey A. Grambling in metamorphics.

We were happily able to complete yet another appointment to our faculty. Laura Crossey, who is expected to receive her Ph.D. degree in September, 1985 from the University of Wyoming will join our department in August, 1986. Her Ph.D. dissertation deals with the interaction of organic and inorganic constituents during diagenesis of sedimentary rocks. Her expertise and research interests in low-temperature organic and inorganic geochemistry will allow her to teach and provide research opportunities in subjects that relate to the generation and geochemistry of hydrocarbons. Another aspect of her research deals with diagenetic reactions in lithologies that house oil and gas occurrences. This appointment will provide us with staff and

expertise in a field that is not presently covered by any of our faculty - a field that is regarded as one of great importance by the oil and gas industry. Her interests will be a good complement to the teaching and research of Assistant Professor Robyn Wright. Laura Crossey will be a postdoctoral fellow at the University of Wyoming before joining our faculty in August, 1986.

Dr. Bruce Black has been appointed the Visiting Distinguished Professor of Petroleum Geology for the fall semester of 1985. Dr. Black received his Ph.D. (1973) and M.S. (1964) in Geology from The University of New Mexico. He is president of Black Oil, Inc., in Farmington, New Mexico. He will teach a course entitled "Petroleum Geology". The funds for Dr. Black's appointment are provided from the income of the Energy Exploration Education, Inc. endowment.

Dr. Spencer Lucas, who received his Ph.D. degree from Yale University in 1983, became the Departmental Curator as of July 1, 1984. His main research interests are in taxonomy, biostratigraphy and evolution of early Cenozoic mammals. Dr. Lucas is in charge of the complete renovation of the Geology Museum on the ground floor of Northrop Hall.

Dr. Ian Mackinnon, who received his Ph.D. degree from James Cook University (Townsville, Queensland, Australia) in 1979, came to us from The National Aeronautics and Space Administration at the Johnson Space Center in Houston, Texas. Prior to that he had been a Research Associate in the Departments of Chemistry and Geology at Arizona State University. At UNM he is a Senior Research Scientist in charge

of the research, teaching with and operation of the newly acquired scanning transmission electron microscope.

Professor Wolf Elston, who will be on sabbatical leave from August, 1985 until August, 1986 has received invitations to engage in research in South Africa, New Zealand, and Great Britain. In Britain, Wolf has been awarded a Royal Society Guest Research Fellowship and has been appointed Visitor to the Open University, Milton Keynes, Buckinghamshire.

During 1984-85 we had two visiting research associates in our department, working mainly with Professor Jeffrey A. Grambling. Dr. Timothy H. Bell and Dr. Roger Batemen, lecturer and postdoctoral research associate, respectively, at James Cook University, Townsville, Queensland, Australia, were here full-time on an NSF grant awarded to Tim H. Bell and Jeffrey A. Grambling. Their main research activities were in structural deformation and metamorphism.

Student enrollments, and changes in programs

Student enrollments at the undergraduate level were considerably reduced over prior years. This reflects a nationwide reduction in employment opportunities in geology-related fields after BS or BA degrees. This shortage in employment is directly related to a severe reduction in mining activities in North America, and to a considerable slow-down in the oil and gas industry. The economic slump in the energy industry is generally viewed as cyclical, but such a positive prognosis may not apply to the North American mining industry.

The result of this is a considerable reduction in student population in all classes for Geology majors.

The department is actively pursuing ways in which more students can be attracted into our 100- and 200-level offerings. This will probably mean one or two new offerings at the 200-level, and more field excursions and/or a new field course offering at the 100-level. These programmatic decisions will be made in the fall of 1985. Some changes in our undergraduate B.S. curriculum were approved this year and will take effect in 1985-86. The department has also instituted a formal program of undergraduate advising. It began in the spring of 1985 and with student and faculty cooperation should become a successful endeavor in 1985-86. During the past year, the department awarded thirteen Bachelor of Science Degrees (see Appendix I).

The number and quality of applicants to our graduate program continues to be very high (see Appendix VI). Students accepted for the fall of 1985 had an average grade-point average of 3.44 (A = 4.0) and an average percentile score of between 74% and 79% on the various parts of the Graduate Record Examination (GRE). Two of our Silver-Kelley Fellowship recipients were successful in obtaining 3-year NSF graduate fellowships. In the spring of 1985 our total graduate population was 75, about the maximum the department can accommodate in terms of space in Northrop Hall and reasonable faculty-student ratios. During the past year the department awarded ten Master of Science Degrees and one Doctor of Philosophy Degree (Appendix I).

The Department faculty voted some important changes in our M.S. program with the intent of making graduate examinations less ambiguous to the candidates, and of directing the students into a research program as early as the second semester in residence at UNM. The revised program will apply to all candidates entering the M.S. program in the fall of 1985.

Research Activities and Research Funding in the Department of Geology and the Institute of Meteoritics, and Major Professional Activities* of Faculty

The department continued its tradition of strong dedication to high-quality research and publication and the incorporation of that research into the instruction of students at the undergraduate and graduate levels. Our sixteen full-time faculty, and three scientific staff members published (not counting papers in press, or in preparation as reported in the biographical supplements for 1984):**

2 books (Geochemical Aspects of Radioactive Waste Disposal, D. G. Brookins, 1984, Springer-Verlag, 349 pp.; and Manual of Mineralogy, 1984, 20th edition, C. Klein and C. S. Hurlbut, Jr., John Wiley, 596 pp.);

* A complete listing of all professional activities of the faculty is given in sections 6 and 7 of "Faculty Activities".

** The faculty activities compiled in this Annual Report were obtained from the biographical supplement of each individual faculty (and scientific staff) member. Such reports reflect activities from January 1, 1984 until December 31, 1984. As such some publications listed as in press may well have been published by June, 1985. Such changes are not here reported because of the unnecessary additional workload required of each faculty member to bring his (or her) biographical listing up-to-date once more after six months.

129 professional articles in refereed journals and/or guidebooks (published and "in press");

76 abstracts;

12 technical reports;

7 book and map reviews; and

6 fieldtrip guides and roadlogs.

A detailed listing of publications (many with student authors) is provided in the section "Publications".

The total value of research grants and contracts in effect, in the Department of Geology and the Institute of Meteoritics, in calendar year 1984, and having come into effect since September 1984 (but prior to May 1985) amounts to $3,242,228.00. In addition, there was a total of $11,001.00 awarded to faculty members by the UNM Research Allocation Committee (see Appendix II).

Many of our faculty are well-recognized for their professional contributions, as reflected by major committee assignments in state, national and international professional organizations, by editorships, associate or co-editorships, and elected offices in professional councils. A complete listing of all such activities, for all faculty, can be found in sections 6 and 7 of "Faculty Activities".

Douglas G. Brookins

Materials Research Society: Publications Committee (1982-84), Membership Committee (1984), Radwaste Symposium Planning Committee Chairman (1984-85).

Editor of Uranium, published by Elsevier, Holland.

Associate Editor of Journal of Applied Geochemistry, published by The International Association of Geochemistry and Cosmochemistry.

Wolfgang E. Elston

International Association for Volcanology and Chemistry of the Earth's Interior, 1983-present, Secretary of Working Group on Explosive Volcanism; 1971-present, Member, Working Group on Volcanic Data Files.

New Mexico Mining Association, Member, Board of Directors.

Geological Survey Galilean Satellites Mapping Team, Member.

Rodney C. Ewing

Materials Research Society: Councilor 1983-85; Secretary and Member of Executive Committee, 1984-86; Chairman of the Education Committee, 1984; Member of the Committee for the Selection of the Von Hipple Award; Co-chairman of the Eighth International Symposium on the Scientific Basis for Nuclear Waste Management; Member of the Program Committee for the Ninth International Symposium on the Scientific Basis for Nuclear Waste Management, Stockholm, Norway.

International Mineralogical Association: Member of Program Committee for International Meeting at Stanford, California, 1986 and Member of Field Trip Committee (in northern New Mexico) for the same meeting.

Jeffrey A. Grambling

New Mexico Geological Society, Vice President (Jan.-April, 1984), President (April-Dec., 1984).

Klaus Keil

Meteoritical Society, Chairman of the Organizing Committee, 17th Annual Meeting, University of New Mexico, Albuquerque, New Mexico; Member, Program Committee.

International Union of Geological Sciences, Member Advisory Committee on Comparative Planetology, 1982-85.

Universities Space Research Association, Houston, Texas: Chairman, Lunar and Planetary Science Council.

Antarctic Meteorite Working Group, NSF and NASA, Member.

Associate Editor, Journal of Geophysical Research, published by The American Geophysical Union.

Associate Editor, journal Chemie der Erde.

Member, Editorial Board, Chemical Geology.

Member, Editorial Board, Tschermak's Mineralogische - Petrographische Mitteilungen, Vienna, Austria.

Acting Associate Editor, Geochimica et Cosmochimica Acta, 1984.

Cornelis Klein

Mineralogical Society of America, Council Member; Chairman of Subcommittee for Selection of MSA award recipient.

International Mineralogical Association: MSA representative in "History and teaching of mineralogy".

New Mexico Mining Association; Member of the Board of Directors (1985-88).

New Mexico Museum of Natural History, Member of the Advisory Committee on Geology.

Associate Editor, Precambrian Research, Elsevier, Holland.

Precambrian Paleobiology Research Group, U.C.L.A., Los Angeles, Member.

Albert M. Kudo

Chairman, UNM - Sandia Colloquium Committee

Barry S. Kues

New Mexico Journal of Science, Member of the Editorial Board.

Spencer G. Lucas

New Mexico Paleontological Society, Co-chairman.

New Mexico Geological Society 36th Annual Field Conference, Chairman.

New Mexico Museum of Natural History, Member of Advisory Committee on Paleontology.

Stephen G. Wells

Geological Society of America, Panel Member of the Quaternary Geology and Geomorphology Division.

Editorial Board Member of Geology published by the Geological Society of America.

Lee A. Woodward

American Association of Petroleum Geologists, Member of the House of Delegates, 1984-1987.

Major additions to research instrumentation

Major new installations in analytical equipment were completed in the fall of 1984. An automated (Scintag) powder X-ray diffractometer with color graphics display was added to the facilities already present in the X-ray diffraction laboratory in the basement of Northrop Hall. This installation was under the direction of Dr. Bryan Chakoumakos, a postdoctoral fellow with Professor R. C. Ewing. The installation of a JEOL 2000 FX scanning transmission electron microscope (with energy dispersive analytical capability) was recently completed, in the basement of Northrop Hall, under the direction of Dr. Ian Mackinnon. This facility is central to the Electron Microbeam Analysis Facility that has been established in the basement of Northrop Hall, by the Department of Geology and the Institute of Meteoritics.

A Finnigan MAT Delta E ratio mass spectrometer was installed in August, 1984, under the direction of Dr. Crayton Yapp in the department's stable isotope laboratory. The instrument has multiple isotope measurement capabilities and has been employed in the analysis of carbon, oxygen and hydrogen isotope ratios in geological materials. Funds for the mass spectrometer were provided by the NSF (cost-shared with the New Mexico State Bond Allocation).

Professor Geissman has been awarded an NSF grant (cost-shared with New Mexico State Bond Allocation) for a Standard Axis Cryogenic Magnetometer, which, after further renovation of the basement (Phase IV), during this summer and fall, will be housed in a newly constructed "low-field" basement room.

Professor Doug Brookins will soon oversee the installation of a VG354 Thermal Ionization Mass Spectrometer for detailed Rb/Sr and Sm/Nd work, which was funded to him mainly by the U.S. Department of Energy with a lesser cost-sharing component from the New Mexico State Bond Allocation.

The above, major analytical installations, will essentially complete many years of acquisition of state-of-the-art instrumentation which rank the Department of Geology's facilities among the very best in the United States.

Building renovations

Phase III renovation of a large part of the basement in Northrop Hall as well as of the large lecture hall (room 122) was completed. The large lecture hall was christened by the Annual Meeting of the Meteoritical Society at UNM in the last week of July, 1985. Prior to that meeting all of the outside of Northrop Hall was completely overhauled, and repainted. The building now looks again as attractive on the outside as when it was newly built.

A grant from the UNM Foundation has provided funds for complete renovation of the Geology Museum on the ground floor of

Northrop Hall. This renovation, under the direction of our curator, Dr. Spencer Lucas, is now underway, with much student and volunteer help. It is expected to be completed and officially reopened early September, 1985 .

Phase IV renovation of large parts of the basement of Northrop Hall that were not upgraded during Phase III, has recently been approved by the University administration. This renovation will involve the building of a low-field room for the cryogenic magnetometer laboratory of John Geissman, an office for Dr. Ian Mackinnon, an office for an electronics technician, a workshop for our preparator George Carnako, a new sample preparation room for the electron beam facilities, upgrading of the thin section laboratory, the X-ray laboratory, a research laboratory of Les McFadden, and a classroom. Furthermore, the secretarial and clerical offices on the ground floor will be upgraded and rearranged to provide more space, quiet and privacy for our staff. The official completion date for phase IV renovations is set for early November, 1985.

Alumni Support

Alumni support for the department continues to be a very important aspect of our professional activities. The support of the Caswell Silver Foundation, funds available through the Alumni Fellowship Program and the Energy Exploration Education, Inc. program in Petroleum Geology prosper only through the efforts of the alumni and industry supporters. The Department hosted an alumni cocktail party at the Annual Meeting of the Geological

Society of America in Reno, Nevada in November, 1985, and our alumni Pat Gratton, Don Snyder, and Wayne Woodworth, and their wives, organized and hosted an alumni cocktail party at the Annual Meeting of the American Association of Petroleum Geologists in New Orleans, Louisiana. Both events were a great success and warming testimony to the accomplishments of the graduates of the Geology Department program.

Public Service

The Department continues an active program of Public Service, hosting more than 2,000 visitors to the Department's Museums and over 800 visitors to the Harding Pegmatite. Faculty and staff participated in programs or projects for Parent's Day, UNM Academic Mart, Senior Day, UNM Outreach Program, Freshman orientation, the Museum of Natural History, and the International Science Fair.

SIGNIFICANT PLANS AND RECOMMENDATIONS

University-related

I. As noted in the introduction to "Significant Achievements" the highest priority for the years ahead in Geology as well as the University at large, is much improved salary raises (for faculty and staff) commensurate with the efforts of a bright, committed and highly professional group of faculty and staff.

II. The operating budget of the Department of Geology (Supplies and Expense) continues to be so underfunded that even the most basic teaching materials in many of our classes can not be replaced, or up-dated, on account of prohibitive costs with respect to our much too low allocation. These matters have been pointed out repeatedly in budget conferences with the Dean of the College of Arts and Sciences. Indeed, not even the increment in S and E (promised to C. Klein as part of his appointment as chairman) for 1984-85 and subsequent years, has been made available because the overall funds allocated by the University to the Dean of the College's budget is too limited to cover even the most minimal increases in S and E requests. I am personally grateful to F. Chris Garcia, Dean of the College of Arts and Sciences, for having made some funds available to us throughout

1984-85 to alleviate the extraordinary financial bind the Department of Geology found itself in. However the 1985-86 budget will present even bigger constraints to the educational functions of our department because only a small increment to S and E was built into the base. This is not the result of a lack of understanding by the Dean of the College, but is caused by an overall inappropriately low level of funding to the College of Arts and Sciences.

III. The aspect that most hinders our recruitment of top-quality graduate students is UNM's pay scale for teaching assistants, which is so far below that of most other academic institutions elsewhere that we cannot compete nationally. As noted in the "Report on admission of graduate students" we have a very talented group of applicants from all over the nation. This is a direct reflection of the recognition of the quality of our graduate and research programs. However, we are generally unable to attract the very top candidates because other institutions' financial packages to these same candidates outstrip ours by $3000 to $5000/year. Only with the Silver-Kelley Fellowships are we truly competitive with awards made at the best academic institutions nationally. In order to improve the quality of the graduate students who are anxious to have join our program, from an excellent and large applicant pool, the University must, as soon as possible, substantially increase its stipends to teaching assistants.

IV. The Department, with an enormous investment in highly sophisticated, state-of-the-art instrumentation continues to function without adequate technical staff support. Every effort must be made, in the years ahead to provide university funds (to be matched with departmental research grant funds) in order to make electronic/computer/ instrumentation upkeep more efficient and less costly. All this can be achieved by in-house technical staff positions; this would eliminate costly service and repair contracts and make local operation of instrumentation much more efficient.

Departmental

I. Phase IV renovations (as described in the prior section) are planned to be officially completed by November 14, 1985.

II. Renovation of the Geological Museum, funded in large part by a grant from UNM Foundation, and the design of all totally new exhibits is planned to be completed by September 1, 1985.

III. Office space will be made available for Professor Christopher Mawer by late August, 1985, after partial subdivision of Dr. Callender's office on the second floor is completed.

IV. Location of office and laboratory space for Dr. Laura Crossey, who will join our faculty in August, 1986, must be identified in the fall of 1985. Appropriate laboratory space must be found in Northrop Hall, and will need to be

renovated for chemical and experimental studies in organic geochemistry.

V. Improvements will continue to be made to the various analytical facilities that make up the Electron Microbeam Analysis Facility. The completion of Phase IV renovations will allow for some of these improvements.

VI. The departmental collections in paleontology, mineralogy and petrology will continue to be curated under the direction of Dr. Spencer Lucas, with the intent of locating all research-related and type materials in the new specimen storage area in the basement. Efficient use by all faculty of this new facility should make additional space available elsewhere in the building (some of which is now used for rock and mineral storage) for research as well as graduate students.

VII. The Department will continue its well-established liaison with its alumni and to encourage their support for our programs. The Alumni Fellowship Fund, the Distinguished Visiting Professorship in Petroleum Geology, and the Caswell Silver Foundation are all efforts that rely almost entirely on the generosity of our alumni.

APPOINTMENTS TO STAFF

Spencer G. Lucas, Curator, Adjunct Assistant Professor, July 1, 1984

Ian D. R. Mackinnon, Senior Research Associate, September 1, 1984

Horton E. Newsome, Research Scientist, Institute of Meteoritics, July 17, 1984

Harold Poths, Research Associate, May 1, 1984

Linda K. Morris, Department Secretary, December 18, 1984

Rosemary A. Griego, Editorial Assistant I, March 11, 1985

Kenneth K. Kietzke, Thin Section Preparator, May 1, 1985

SEPARATIONS FROM STAFF

Jonathan F. Callender, Associate Professor, Resigned effective May 12, 1984

Kenneth D. Mahrer, Assistant Professor, Resigned effective August 26, 1984

Esther A. Harrison, Department Secretary, Resigned effective November 16, 1984

Katharine H. Downer, Editorial Assistant I, Resigned effective January 23, 1985

Gerald G. Gomez, Thin Section Preparator, Resigned effective March 1, 1985

Linda K. Morris, Department Secretary, Resigned effective May 10, 1985

Earl E. George, Electronics Technician, Resigned effective June 30, 1985

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ACTIVITIES OF THE FACULTY AND RESEARCH SCIENTISTS

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1. ADVANCED STUDY

Douglas G. Brookins

Eighth International Symposium on the Scientific Basis for Nuclear Waste Management, Boton, Massachusetts, Nov. 26-29, 1984, sponsored by the Materials Research Society.

International Workshop on the Use of Natural Analogs for Radioactive Waste Study, Sept. 30 - Oct. 4, 1984, sponsored by the SKBF (Sweden) and the U. S. Department of Energy (OCRD).

U. S. Department of Energy Study Panel on the Sedimentary Rock Program (SERP) for Radioactive Waste Disposal Consideration, workshop-review, Oak Ridge, TN, Oct. 24-26, 1984. Sponsored by USDOE and ORNL.

National Academy of Science-National Research Council Study Panel on Uranium Mill Tailings. Study and workshops in Washington, D.C., on March 13-15, July 18-20, Sept. 19-21, Dec. 2-4, 1984; and in Grants, NM, May 20-22.

Jeffrey A. Grambling

Mineralogical Society of America, Short Course, "Micas," Nov. 2-4, 1984.

2. SABBATICALS, LEAVES OF ABSENCE AND TRAVEL

Roger Y. Anderson

July 9-21, University of Wisconsin, Madison, COHMAP meeting, talk on "Climatic variability at Elk Lake, Minnesota".

August 13-15, Boulder, Colorado, AMQUA Meeting, presented poster session.

November 5-8, Reno, Nevada, GSA Annual Meeting, presented 3 poster sessions.

Douglas G. Brookins

March 8-9, Washington, D.C., attended NAS-NRC panel on uranium mill tailings.

March 26-27, Dallas, TX, presented two invited papers at the South-Central Section of the Geological Society of America annual meeting.

April 4-5, Socorro, NM, meeting on Hazardous Waste in New Mexico, sponsored by the NMIMT.

May 20-22 Grants, NM, NAS-NRC panel meeting on uranium mill tailings, field trip to several uranium mill tailings sites and underground mines.

June--several dates--field work in the San Pedro Mtns., NM

June--two trips to the Florida Mtns., NM

July 18-20, NAS-NRC panel meeting in Washington, D.C.

Aug. 1-5, field work in western NM-eastern AZ

Sept. 19-21, Washington, D.C., NAS-NRC panel meeting on uranium mill tailings

Sept. 30-Oct. 3, workshop on natural analogs for radwaste studies, Lake Geneva, WI

Oct. 24-26, Oak Ridge, TN, workshop on sedimentary rock program for USDOE

Oct. 27, Santa Fe, NM, meeting with NM Environmental Evaluation Group

Nov. 13-15, Carlsbad, NM, field work in WIPP area

Nov. 24-29, Boston, MA, meeting of the Materials Research Society

Dec. 2-4, Washington, D.C., NAS-NRC Panel on uranium mill tailings

Bryan C. Chakoumakos

Feb. 27-29, Albuquerque, New Mexico: Attended the annual Spring meeting of the Materials Research Society.

March 1-3, Santa Fe, New Mexico: Attended the Collaborative Working Group on Radiation Effects in Crystalline Nuclear Waste Forms.

March 19, Los Alamos, New Mexico: Visited David Bish to examine his automated powder X-ray diffractometer made by Siemens, a potential vendor for the Department's planned purchase of such an instrument.

April 17-23, Stanford, California: Collected X-ray absorption spectroscopy data on research samples (pyrochlores) with

Farrel Lytle and Bob Greegor at the Stanford Synchrotron Radiation Laboratory.

April 24-25, Santa Clara, California: Examined and demonstrated an automated powder X-ray diffractometer made by SCINTAG, another potential vendor for the Department's planned purchase.

May 3, Picuris Range, New Mexico: Led a guided tour of the Harding Pegmatite for a delegation of four Chinese geologists touring with the U.S. Geological Survey.

May 5, Picuris Range, New Mexico: Toured the Harding Pegmatite with two visiting German scientists and Rodney Ewing.

June 28-29, Albuquerque, New Mexico: Attended the DOE, office of Basic Energy Science annual review of the materials science program at Sandia National Laboratories.

July 15-20, Palo Alto, California: Attended the Third International EXAFS Conference at Stanford University.

August 31, Los Alamos, New Mexico: Visited Frank Clinard with Rodney Ewing to discuss joint research.

September 17-18, Picuris Range, New Mexico: Collected research samples at the Harding Pegmatite.

October 1-3, Santa Clara, California: Attended training program for the SCINTAG automated X-ray diffractometer, with Rodney Ewing and Kase Klein.

Oct. 5, Picuris Range, New Mexico: Located the property boundary markers at the Harding Pegmatite, with Art Montgomery, Gilbert Griego, Bernabe Griego, Rodney Ewing and Greg Lumpkin.

Oct. 13-14, Picuris Range, New Mexico: Toured the Harding Pegmatite with Geol 301 Mineralogy class, and collected research samples.

Oct. 22-24, Santa Clara, California: Attended annual User's Group Meeting for owners of the SCINTAG automated X-ray diffractometer.

Oct. 28, Picuris Range, New Mexico: Examined the structural relations around the Harding Pegmatite, with Rod Holcombe and Sarah Brothers; and collected research samples.

Nov. 3-4, Reno, Nevada: Attended the Mineralogical Society of America short course on the Micas.

Nov. 5-8, Reno, Nevada: Attended the annual meeting of the Geological Society of America and the Mineralogical Society of America.

Nov. 20, Picuris Range, New Mexico: Toured the Harding Pegmatite with Ron Vernon, and collected research samples.

Nov. 25-28, Boston, Massachusetts: Attended the annual meeting of the Materials Research Society.

Wolfgang E. Elston

Application for sabbatical leave for 1985-86 was approved; invitations have so far been received from the Universities of Pretoria and Durban (South Africa), Auckland and Victoria (New Zealand); The International Volcanological Congress (New Zealand), February 1986; the 8th Australian Geological Convention (February, 1986); the Open University,

Universities of Cambridge and Newcastle-upon-Tyne (U.K.); the Technical Institute of Aachen (West Germany), and Western Mining Company, Fiji.

Teaching Elsewhere

July 3-4, 1984, Taos, NM, Guest Lecturer, UNM German Summer School. Gave talk in German on "Eindruecke von Deutschland, 1983" ("Impressions of Germany, 1983"), and led field trip to Harding Mine.

Travel

April 5-8, Las Vegas, NV: Invited colloquium speaker, University of Nevada-Las Vegas, "Mid-Tertiary extensional orogeny of the Basin and Range province." Geologic field trip to Lake Mead area.

April 17-18, El Paso, TX: Invited colloquium speaker, University of Texas-El Paso, "Mid-Tertiary extensional orogeny of the Basin and Range province."

April 19, Las Cruces, NM: Invited colloquium speaker, New Mexico State University, "Mid-Tertiary extensional orogeny of the Basin and Range province."

April 27, Socorro, NM: Attended annual spring meeting of New Mexico Geological Society.

May 11-12, Durango, CO: Attended annual meeting of Rocky Mountain Section, Geological Society of America. Invited

speaker in symposium on Economic Deposits in Volcanic Rocks; chaired session on Economic Geology/Mineralogy.

May 20-June 15: Travel and geologic field work in western Canada and Alaska; attended annual meeting of Cordilleran Section, Geological Society of America, May 30 to June 1, read paper and chaired session on Tectonics.

June, July: Geologic field work in New Mexico.

July 3-4: Taos, NM: UNM German Summer School.

August 4-18, Mount St. Helens, WA: Geologic field work (Aug. 4-10); invited participant in field trip to Crater Lake, Oregon led by Charles Bacon, U.S. Geological Survey (Aug. 11-12); invited participant, Workshop on Volcanic Blasts of International Association for Volcanology and Chemistry of Earth's Interior Working Group on Explosive Volcanism; co-leader (with C.W. Criswell, UNM graduate student) of field trip to pyroclastic deposits of the 1980 Mount St. Helens eruption; attended business meeting of Working Group as Secretary (Aug. 13-18).

Sept. 21-23, Lordsburg, NM: Geologic field work in Pyramid Mts. with geologists from NASA Space Technology Laboratory and Lockheed Engineering and Management Service Co.: Ground check for remote sensing project.

Sept. 28-30, Beaverhead, NM: Geologic field work in Black Range with geologists from the U.S. Geological Survey and N.M. Tech. Review of regional geology.

Oct. 2, Jemez Mts., NM: Site visit with personnel from UNM Development Office.

Oct. 13-14, Zuni Salt Lake, NM: Field work for Decade of North American Geology Guidebook.

Oct. 15-19, Los Alamos National Lab., NM: Attended workshop on Recent Research in Valles Caldera, read paper, contributed to LANL research proposal to U.S. Department of Energy for drilling the Valles Caldera.

Oct. 26-28, Silver City, NM: Led geologic field trip for UNM faculty and students, visitors from Pennsylvania State University and California State University-Long Beach to Chino mine, Mogollon Mts., Black Range.

Nov. 2-9, Reno, NV: Attended annual meeting of Geological Society of America (GSA), participated in field trip on Paleozoic-Mesozoic Continental Margin, Western Great Basin. Attended meeting of GSA Ad Hoc Committee on Minorities in the Geosciences, co-led GSA Minorities Committee Geoscience Day field trip for minority students (Nov. 2-4), interviewed prospective graduate students.

Rodney C. Ewing

February 2-5, Oak Ridge, Tennessee: Visited Oak Ridge National Laboratory as part of collaborative research effort with L. Boatner of the Solid-State Division. Trip sponsored by Oak Ridge Association of Universities.

February 9-12, Tucson, Arizona: Attended the FM-MSA Symposium on the "Minerals of Mexico" and the Tucson Gem and Mineral Show.

February 20-22, Baltimore, Maryland, and Germantown, Maryland: Visited Johns Hopkins University and the National Bureau of Standards for the demonstration of Philips' electron microscopes.

February 24-29, Tokyo, Japan: Visited JEOL laboratories for demonstration of electron microscopes.

March 2-3, Santa Fe, New Mexico: Hosted and organized the Collaborative Working Group on Radiation Effects in Crystalline Materials.

March 8, Carlsbad, New Mexico: Visited the WIPP site at invitation of Sandia National Laboratories (hosted by M. Molecke).

March 18-22, Gainesville, Florida: Invited presentation at the JSS (Japan, Sweden and Switzerland) Technical Advisory Group on Phase IV program at the Second International Workshop on Systems Variables in Nuclear Waste Storage.

April 20-22, Palo Alto, California: Data collection at the Stanford Linear Accelerator as part of BES funded research.

May 20-22, San Antonio, Texas: Attended UNM Alumni Reception at the Annual Meeting of the American Association of Petroleum Geologists.

June 17-21, Boston, Massachusetts: Attended short course on electron microscopy conducted at MIT.

June 22, Chicago, Illinois: Attended program committee meeting for the annual meeting of the Materials Research Society.

June 23-26, Paris, France: Visited French National Museum to obtain research specimens.

June 26-30, Berlin, Germany: Continued collaborative research at the Hahn-Meitner Institute in Berlin (hosted by W. Lutze).

July 1-3, Stockholm, Sweden: Visited KBS for discussion of the use of natural analogues in the JSS-Phase IV project.

July 4-27, Berlin, Germany: Continued collaborative research at the Hahn-Meitner Institute in Berlin (hosted by W. Lutze).

July 28-August 5, Reykjavik, Iceland: Field work investigating the alteration products of basalt glasses.

August 6-13, Moscow, USSR: Attended International Geological Congress and a committee meeting of the International Mineralogical Association.

August 13-16, London, United Kingdom.

August 31, Los Alamos, New Mexico: Visited with F. Clinard of the Radiation Effects Group at Los Alamos National Laboratory to discuss collaborative research.

September 9-13, Portland, Oregon: Attended Penrose Conference on "Geochemistry of the Environment Near a High-Level Nuclear Waste Repository"

October 1-3, San Jose, California: Attended training session at Scintag on new X-ray diffraction unit.

October 13-14, Penasco, New Mexico: Harding Field Trip for Geology 301.

November 6-9, Reno, Nevada: Attended Program Committee meeting for the International Mineralogical Association meeting to be held at Stanford University in 1986.

November 24-December 1, Boston, Massachusetts: Attended the annual meeting of the Materials Research Society.

December 11-12, Carlsbad, New Mexico: Attended the National Academy of Science panel meeting for the review of the WIPP site.

John W. Geissman

March 24-29, Central and Southern Nevada, Field work, sample collection for paleomagnetic studies.

May 6-11, Southern Colorado, Colorado School of Mines Geology Field Camp.

May 17-June 10, Central and Western Nevada, Field work, sample collection for paleomagnetic studies.

June 15-22, Bochum, West Germany, assembling rock magnetic instrumentation with research colleague.

June 25-July 3, Jackson, Wyoming, University of Michigan Geology Field Camp.

July 4-24, Beartooth Mountains, southern Montana, Field work, sample collection for paleomagnetic studies.

August 6-7, Golden, Colorado, Colorado School of Mines, General Geology for U.S. State Department Members.

October 10-13, Northern New Mexico, New Mexico Geological Society Field Trip.

October 25, Santa Fe, Organizational meeting, Summer of Applied Geophysical Experience, Los Alamos National Laboratories.

November 2-4, Pioche, Nevada, Field work, sample collection for paleomagnetic study.

November 5-8, Reno, Nevada, Geological Society of America Annual Meeting.

November 20, Los Alamos, Presentation of proposal for paleomagnetic and rock magnetic research on the VC-a corehole.

December 2-5, San Francisco, American Geophysical Union Annual Meeting.

December 28-January 4, Western and southern Nevada, Field work, sample collection for paleomagnetic study.

Jeffrey A. Grambling

January 21-22, Socorro, New Mexico: Field work in the Ladron and Magdalena Mountains.

February 12, Belen, New Mexico: Field trip to the central Manzano Mountains, Geology 548.

March 7, Los Alamos, New Mexico: Meeting with staff at Los Alamos National Laboratory.

March 11-16, Phoenix, Arizona: Field trip to central and northern Arizona, Geology 548.

April 27, Socorro, New Mexico: Attended and chaired Spring Meeting of the New Mexico Geological Society.

May 10-12, Durango, Colorado: Attended and chaired meeting of Rocky Mountain Section, Geological Society of America.

May 21-July 24, northern New Mexico: Geological field work in the Truchas, Mora, Picuris and Taos areas, New Mexico.

September 28-October 1, Pecos, New Mexico: Field trip to Pecos Baldy-Truchas Peak region, New Mexico.

October 10-13, Taos, New Mexico: Attended annual Fall Field Conference of the New Mexico Geological Society.

November 2-8, Reno, Nevada: Attended annual meetings of Mineralogical Society of America and Geological Society of America.

November 28-29, Los Angeles, California: Meetings with staff at the University of Southern California.

Stephen P. Huestis

July 18-20, Los Alamos National Lab.: Collaboration with Mark Ander

September 21-25, U.S. Geological Survey, Golden, Colorado: Collaboration with Raymond Buland, plus colloquium presentation.

John W. Husler

November 5-8, Reno, Nevada, Geological Society of America Annual Meeting.

Klaus Keil

January 13-14, Farmington, New Mexico. Presented talk before the Four Corners Geological Society.

Feb. 2, Socorro, New Mexico. Presented talk at New Mexico Institute of Mining and Technology.

March 11-18, Houston, Texas. Attended Lunar and Planetary Science Conference at the L.P. Johnson Space Center,

chaired one session, co-authored five talks, and chaired Lunar Science Council Meeting.

April 23-29, Heidelberg, West-Germany. Attended European Planetary Science Symposium and presented invited paper.

May 16-19, Munster, West-Germany. Visited Department of Mineralogy and Petrology, University of Munster, presented talk, and discussed joint research with Professor D. Stoffler and graduate student A. Bischoff.

June 29-July 1, Taos, New Mexico. Presented invited talk at German Summer School, Department of Modern and Classical Languages, University of New Mexico.

August 15-17, Washington, D.C. Attended meeting of NASA Committee on Minority Researchers, NASA Headquarters.

October 11-12, Carlsbad, New Mexico. Studied core at the WIPP Site and selected samples for study.

October 31, Boulder, Colorado. Presented talk in Department of Geology, University of Colorado.

December 1-2, San Francisco, California. Chaired meeting of the Lunar Science Council.

December 12-15, LaJolla, California. Attended H.E. Suess Symposium at the University of California and presented invited talk.

December 16-21, Honolulu, Hawaii. Attended PacChem 1984 Conference and presented invited paper.

Cornelis Klein

January 1-March 23 Leave of absence from Indiana University, for research in South Africa. Appointed visiting research scientist, Department of Geology, Rand Afrikaans University, Johannesburg, South Africa, while doing NSF supported field and laboratory research in South Africa.

March 23-25 Field trip to Laguna Mormona, Baja, Mexico, with the Precambrian Paleobiology Research Group (of which I am a steering group member) prior to its scientific meeting at UCLA.

March 25-28 Meeting at UCLA of the Precambrian Paleobiology Research Group, Los Angeles.

April 1-3 Visit to the Department of Geology, Stanford University, Stanford, California, to present two invited lectures.

April 4-7 Visit to the Department of Geology, University of New Mexico, to present lecture on "Diagenesis and Metamorphism of Iron-Formations."

May 20-22 San Antonio, Texas: Attended UNM Alumni Reception at the Annual Meeting of the American Association of Petroleum Geologists.

June 13 to July 4, 1984 Coordinator of field seminar in South Africa, of the Precambrian Paleobiology Research Group (13 international participants).

July 4-8 Field work in South Africa in the Archean of the Barberton Mountainland, and the Bushveld Igneous Complex.

July 9 Invited lecturer on "Some recent advances in Mineralogy" in the Mineralogy session of Geokongress, 1984, in Potchestrom, South Africa.

July 25-August 3 Field excursion in the Ukraine, USSR, entitled "Geological Structure of the Ukrainian Shield."

August 4-9 27th International Geologic Congress, in Moscow, USSR; gave lecture on August 8, (with R. Dymek) entitled "Metamorphosed banded iron-formations from the 3800 Ma, Isua Supercrustal Sequence, Southern West Greenland."

October 1-3 San Jose, California: Attended training session at Scintag on new X-ray diffraction unit.

October 10-13 Northern New Mexico, New Mexico Geological Society Field Trip.

November 5-8 Annual Meetings, Geological Society of America, Reno, Nevada.

December 12 Gave two invited lectures at the Department of Geology, University of Texas at El Paso.

Albert M. Kudo

March 7-9, Gave two invited lectures at the Department of Geology, University of New Orleans, Louisiana.

November 4-9, Geological Society of America, Rocky Mountain Section, Reno, Nevada.

Dec. 2-6, American Geophysical Union, San Francisco, California.

Barry S. Kues

Jan. 5, N.M. Bureau of Mines & Mineral Resources, Socorro, for consultations with paleontologists there.

Jan. 9, Southern Manzano Mountains (fieldwork to support research)

Feb. 25, Manzano Mountains (fieldwork to support research)

March 14-15, Santa Rosa-Tucumcari area (fieldwork to support research)

March 29, San Ysidro area (fieldwork to support research)

April 8, Manzano Mountains (fieldwork to support research)

April 22, Manzano Mountains (fieldwork to support research)

May 6, Cerrillos area (fieldwork to support research, accompanied by Donald E. Hattin, visiting geologist)

May 15, Manzano Mountains (fieldwork to support research)

May 19, Laguna Reservation (fieldwork to support research, accompanied by Donald E. Hattin, visiting geologist)

May 22, Manzano Mountains (fieldwork to support research)

May 31, Jemez Springs area (fieldwork to support research)

Aug. 8-9, Truth or Consequences area (fieldwork to support research)

Sept. 22, Tucumcari area (fieldwork to support research)

Sept. 29, Santa Rosa area (fieldwork to support research)

Nov. 1, Manzano Mountains (fieldwork to support research)

Nov. 10, Santa Rosa to Las Vegas area (fieldwork to support research)

Nov. 22-23, Santa Rosa-Fort Sumner area (fieldwork to support research)

Dec. 20, Santa Fe (examine Museum of New Mexico photo-archives for material relevant to a manuscript in preparation)

Spencer G. Lucas

February 23, Cuba/Star Lake, N.M., for Geol. Soc. Amer. roadlogging

March 8, Farmington, N.M., and Durango, Colo., for Geol. Soc. Amer. roadlogging

March 12-13, 20, Bull Canyon, near Santa Rosa, N.M., for field research

March 16, N.M. Bureau of Mines and Mineral Resources, Socorro, for well-log research

April 7, Las Vegas, N.M., for field research

May 17, Ojo Alamo, near Farmington, N.M., for field research

July 7-8, Kimbeto, near Farmington, N.M., for field research

July 14, Bull Canyon, N.M., near Santa Rosa for field research

July 15, Mammalon Hill, near Farmington, N.M., for field research

July 20, Carthage, N.M., for field research

July 21-22, Tucumcari-Santa Rosa area for N.M. Geological Society roadlogging

July 24, Socorro, N.M., for consultation with managing editor of N.M. Geological Society

August 3-19, People's Republic of China for scientific research

August 20-21, Tokyo, Japan, for scientific research

September 14-16, Bull Canyon for field research

September 29, Santa Rosa for N.M. Geological Society roadlogging

October 12, Rio Puerco for field research

October 27, Regina, N.M., for field research

November 9-11, Tucumcari-Las Vegas, N.M., for N.M. Geological Society, roadlogging

November 16-18, Tucumcari-Las Vegas, N.M., for N.M. Geological Society, roadlogging

Ian D. R. Mackinnon

February 20-March 1, Baltimore (Johns Hopkins University), Washington, D.C. (National Bureau of Standards), Tokyo, Japan (JEOL Headquarters); to inspect and test new developments in transmission electron microscopes by Philips and JEOL Manufacturers.

March 2-4, Santa Fe, NM; attended working group on radiation effects in crystalline nuclear waste forms.

May 20-26, Canberra and Sydney Australia; discussion with scientists (J.D. Fitzgerald, R.A. Eggleton, K.L. Smith) at the Australian National University and at New South Wales Institute of Technology on structures of feldspars and the weathering of basalts.

August 6-10, James Cook University, Townsville, Australia; discussion with colleagues (C. Cuff and J. Thompson), on clay mineralogy and oil shales.

August 13-19, Australian National University, Canberra; discussion with J.D. Fitzgerald on draft manuscript for plagioclase structure, consultation on electron microscopy techniques.

November 25-29, Houston; discussion with scientists at NASA Johnson Space Center & Exxon Production Research Co., on collaborative projects in cosmic dust and clay mineralogy.

Leslie D. McFadden

January 3-7, Los Angeles, California: Travel to Transverse Ranges to conduct research on soils and geomorphology in collaboration with colleague from California Institute of Technology.

February 4-5, San Agustin Plains, New Mexico: Travel to San Agustin Plains to conduct R.A.C. grant-supported research.

February 22-23, San Diego, California: Travel to San Diego State University to present invited talk to Geology Department.

February 28, San Juan Basin, New Mexico: Travel to Chaco Canyon area to conduct consulting research, supported by the Navajo Indian Tribe.

March 2-4, San Agustin Plains, New Mexico: Travel to San Agustin Plains to conduct R.A.C. grant-supported research.

April 20-22, San Agustin Plains, New Mexico: Travel to San Agustin Plains to conduct R.A.C. grant-supported research.

May 10-12 Durango, Colorado: Travel to Durango to attend and serve as session co-chairman at Rocky Mountain Section Meeting of the Geological Society of America.

May 14-18, San Agustin Plains, New Mexico: Travel to San Agustin Plains to conduct R.A.C. grant-supported research.

May 22-25, San Agustin Plains, New Mexico: Travel to San Agustin Plains to conduct R.A.C. grant-supported research.

June 20-13, San Diego, California: Travel to southern California desert and Mexico for purpose of reviewing Quaternary geology, soils with colleague from San Diego State University.

June 25-27, Menlo Park, California: Travel to U.S. Geological Survey to participate in meeting of soil research group and discuss plans for collaborative research.

July 12, San Agustin Plains, New Mexico: Travel to San Agustin Plains, New Mexico to show colleagues from Penn. State University and New Mexico Bureau of Mines and Mineral Resources results of recent studies.

August 30-31, Los Angeles, California: Travel to northern Transverse Range to review research results of U.S.G.S. supported group at University of California, Santa Barbara.

September 21-23, Sangre de Cristo Mountains, New Mexico: Travel to southern Sangre de Cristo Mountains to review results of graduate student research on glacial moraines and soils.

October 10-13, Taos, New Mexico: Travel to northern New Mexico region to participate in 1984 New Mexico Geological Society Field Conference.

October 31-November 4, Las Vegas, Nevada: Travel to Las Vegas, Nevada to co-lead Geological Society of America Field Trip.

November 4-10, Reno, Nevada: Travel to Reno to participate in National Meetings of the Geological Society of America.

December 10-12, Tucson, Arizona: Travel to Tucson, Arizona to review collaborative research papers with colleagues at the University of Arizona.

Stephen G. Wells

Sabbatical leave January 1, 1984 to January 1, 1985 with the following appointments:

Faculty Research Position
Western Minerals Branch
U.S. Geological Survey, Menlo Park, California
Host: Dr. John C. Dohrenwend, Feb. - Mar. & Sept. - Dec., 1984

University Fellow/Visiting Scholar
Department of Geography
University of Liverpool, Liverpool, England
Host: Dr. Adrian Harvey, April - July, 1984

Jan. 3-20, Costa Rica: Fieldtrip to initiate research on tectonic geomorphology of western Costa Rica sponsored by Mellon Field Fellowship, Latin American Institute - UNM.

Feb. 20 - March 18, eastern Mojave Desert, California: To conduct field research on long-term geomorphic rates and paleohydrology of Mojave Desert with U. S. Geological Survey.

April 2 - July 2, Liverpool, England: To conduct research on fluvial and hillslope processes with Dr. Harvey in England and Spain and to lecture at the University of Liverpool.

April 8-22, Almeria/Mojacor, Spain: To co-teach joint geology/geography honors field course in Spain and to conduct research on long-term fluvial evolution of southeastern Spain with Dr. Harvey.

June 6-7, St. Andrews, Scotland: to visit Dr. Alan Werrity in Dept. of Geography and to discuss research problems on impact of large magnitude storm events on hillslopes.

June 17-19, Aberystwyth, Wales: Field excursion conducted by Dr. John Lewin, University College of Wales, to examine fluvial processes in central Wales.

Sept. 23-28, Flagstaff, Arizona, attended U.S. Geological Survey and U.S. Army Workshop on Desert Geomorphic Processes sponsored by the Branch of Astrogeology, U.S.G.S. and the U.S. Army Engineer Topographic Laboratories; and presented paper on "Geomorphic Research in Northwestern New Mexico and the Mojave Desert, California".

Sept. - October, Fieldtrips with the U.S. Geological Survey to prepare for 1985 Penrose Conference and to prepare for 1984 national Geological Society of America fieldtrip.

Robyn Wright

July 26 One-day field excursion, New Mexico Cretaceous, with W. Aubrey, U.S.G.S.

October 3-6 Attended Sandia Laboratories Core Workshop, Grand Junction, Colorado

October 10-13 Attended New Mexico Geological Society Field Conference - Rio Grande Rift

Crayton J. Yapp

November 2 and 3, 1984, Travel to San Jose, California, to attend a forum on isotope ratio mass spectrometers sponsored by Finnigan MAT Corporation.

3. NEW SCHOLASTIC HONORS, FELLOWSHIPS, ETC.

Douglas G. Brookins

Biographical statement included in Marquis's Who's Who in America (43 Ed.).

Biographical statement included in Marquis's Who's Who in the World (7 Ed.).

Wolfgang E. Elston

In connection with planned 1985-86 sabbatical: Awarded a Royal Society Guest Research Fellowship (Open University, U.K.) for 1986 and appointed Foundation Visitor (University of Auckland, New Zealand) for 1985-86.

Listed in Who's Who in Technology Today.

Listed in Who's Who in the West.

Rodney C. Ewing

Elected Fellow of the Mineralogical Society of America.

Selected for Who's Who in Frontiers of Science and Technology, Who's Who in the West, Personalities of America, and nominated for inclusion in the 1984 Esquire Register.

Klaus Keil

Outstanding Educator, University of New Mexico Alumni Association.

Reappointed Research Associate, Department of Mineral Sciences, American Museum of Natural History, New York, N.Y., for 1984-1987.

Recipient of the NASA Group Achievement Award.

Associate Editor, Journal Chemie der Erde.

Acting Associate Editor, Geochimica et Cosmochimica Acta.

Member, Advisory Committee for the Institute of Geophysics and Planetary Physics, University of California, Los Alamos National Laboratory, Los Alamos, New Mexico.

Listed in The International Who's Who of Contemporary Achievement.

Cornelis Klein

Member of Steering Committee, Precambrian Paleobiology Research Group, U.C.L.A., Los Angeles, 1979-

Council Member, Mineralogical Society of America.

Chairman, MSA Award Committee.

MSA representative to the International Mineralogical Commission on History and Teaching.

Associate Editor Precambrian Research (Elsevier).

4. PUBLICATIONS

Roger Y. Anderson

Papers

"Orbital forcing of evaporite sedimentation": in Berger, A. L., et al. (eds.) Milankovitch and climate, D. Reidel Publ. Co., Part I, p. 147-162.

"Sinking of volcanic ash in uncompacted lake sediment in Williams Lake, Washington", Science, v. 225, p. 505-508.
Coauthors: E.B. Nuhfer and W.E. Dean

"Variability of Holocene climatic change: Evidence from varved lake sediments", Science, v. 226, p. 1191-1194.
Coauthors: W.E. Dean, J.P. Bradbury, and C.J. Barnosky.

"Isotope shifts in the late Permian of the Delaware Basin, Texas, precisely timed by varved sediments", Earth and Planetary Science Letters.
Coauthors: N. Magaritz, W.T. Holser, and E.S. Saltzman

"Changes in sediment composition during seasonal resuspension in small shallow dimictic inland lakes", Sedimentary Geology, v. 41, 131-158.

In Press:

"Meromictic lakes and varved lake sediments in North America", U.S. Geological Survey, Bull. 1607.
Coauthors: W.E. Dean, J.P. Bradbury, and D. Love

"Sedimentation in a blast-zone lake at Mount St. Helens: Implications for varve formation", Geology.
Coauthors: E.B. Nuhfer, and W.E. Dean

Abstracts

"Limits of sensitivity in Holocene climatic records from western North America", Geol. Soc. America (abs.) v. 16, No. 6, p. 430.
Coauthors: W.E. Dean, J.V. Nuhfer, and J.V. Gardner

"Sedimentology of Mount St. Helens tephra at Merrill, Soap, and Williams lakes, Washington, USA", Geol. Soc. America (abs.) v. 16, No. 6, p. 430.
Coauthors: E.B. Nuhfer, W.E. Dean, and G.A. Del Mastro.

"Rates of Holocene climatic change - Evidence from varved lake sediments", Geol. Society America (abs.), v.16, No. 6, p. 484.
Coauthors: W.E. Dean, and J.P. Bradbury

Douglas G. Brookins

Books

Geochemical Aspects of Radioactive Waste Disposal (New York: Springer-Verlag, Inc.), 349 pp.

The Geologic Disposal of Radioactive Wastes (New York: Oxford University Press, in press).

Papers and abstracts

"Uranium hydrogeochemistry and stream sediment pilot survey of a portion of McKinley County, north of Grants, New Mexico": Uranium, v. 1, p. 307-334, 1984.
Coauthor: C. E. Olsen

"The Mount Taylor uranium deposit, San Mateo, New Mexico": Uranium, v. 1, p. 189-209, 1984.
Coauthor: W. C. Riese

"Geochemical studies of Columbia River basalts": in Sci. Basis Nuc. Waste Management VII (G.L. McVay, Ed.), Elsevier Sci. Publ. Co., New York, p. 843-851, 1984.
Coauthors: H. A. Wollenberg, M. T. Murphy, S. Flexser

"Strontium isotopic study of fracture filling minerals in Grande Ronde basalt, Washington": in Sci. Basis Nuc. Waste Management VII (G.L. McVay, Ed.) Elsevier Sci. Pub. Co., New York, p. 917-926, 1984.
Coauthors: M. T. Murphy, H. A. Wollenberg

"Uranium industry impacts on groundwater in New Mexico: theory and applications": NM Bur. Mns. Min. Res. Spec. Pub. 15, p. 35-48, 1984.
Coauthors: B. M. Thomson, P. A. Longmire

"Natural analogs for radwaste disposal: elemental migration in igneous contact zones": NM Acad. Sci., in press.

"Isotopic strontium variation in host basalt and secondary material of the Grande Ronde Basalt, Columbia River basalt group, Hanford": NM Acad. Sci., in press.
Coauthors: M. T. Murphy, H. A. Wollenberg

"Geochronologic studies in the Florida Mountains": NM Acad. Sci., in press.
Coauthor: M. S. Abashian

"Rb-Sr geochronologic studies of the Precambrian rocks near Eldora, Colorado":
Isochron/West, n. 39, p. 9-14, 1984.
Coauthor: M. S. Abashian

"Rb-Sr whole rock age of the Eldora-Bryan Mountain stock, Front Range, Colorado": Isochron/West, n. 39, p. 15-17, 1984.
Coauthor: M. S. Abashian

"Trace element distributions in sedimentary type uranium deposits": Trans. AIME, v. 184, p. 1-14, 1984.
Coauthor: R. D. Della Valle

"Rb-Sr dating of sedimentary rocks from the San Juan Basin, New Mexico": Geol. Soc. Amer. Prog. with Abs., v. 16, p. 79, 1984.

"Geochronologic study of evaporite minerals, Delaware Basin, New Mexico": Geol. Soc. Amer. Prog. with Abs., v. 16, p. 79, 1984.

"Geochemistry, diagenesis and contaminant transport of uranium mill tailings, Grants Mineral Belt, New Mexico": Geol. Soc. Amer. Prog. with Abs., v. 16, p. 245, 1984.
Coauthors: P. A. Longmire, B. M. Thomson

"Geochronology and geochemistry of Proterozoic metamorphic rocks, Nederland Quadrangle, Colorado": Geol. Soc. Amer. Prog. with Abs., v. 16, p. 213, 1984.
Coauthor: M. S. Abashian

"Provenance and sediment dispersal, Westwater Canyon Sandstone, western San Juan Basin, New Mexico": Geol. Soc. Amer. Prog. with Abs., v. 16, p. 245, 1984.
Coauthor: R. M. Lowy

"Geochronologic study of the Sandia Mountains, New Mexico": Geol. Soc. Amer. Prog. with Abs., v. 16, p. 217, 1984.
Coauthor: A. Majumdar

"Glastonbury gneiss and mantling rock (a modified Oliverian Dome) in south-central Massachusetts and north-central Connecticut: geochemistry, petrogenesis, and isotopic age":
U.S. Geological Survey Professional Paper 1295, 45 pp., 1984.
Coauthors: G. W. Leo, R. E. Zartman

"Strontium isotope study of a basalt-rhyodacite contact, Robin Hood quarry, Oregon": Isochron/West, n. 40, p. 18-21, 1984.
Coauthor: M. T. Murphy

"Strontium isotopic analysis of Grande Ronde basalt and fracture filling minerals, Drill Hole DC-6, Hanford Reservation, Washington": Isochron/West, n. 40, p. 17-18, 1984.
Coauthors: M. T. Murphy, R. K. Matheney

"Geochronology and geochemistry of the Sandia granite, north-central New Mexico": Eos, Trans. Am. Geophy. Union, v. 65, p. 300, 1984.
Coauthors: A. Majumdar, A. F. Wilson, A. K. Baksi

Review of "Our modern stone age" (by R. L. Bates, J. A. Jackson), Amer. Scientist, v. 72, p. 292-293, 1984.

"Rb-Sr geochronologic study of Precambrian rocks of the Front Range, near Eldora, Colorado": NM Geol. Soc. Ann. Spring Mtg. Abs., p. 18, 1984.
Coauthor: M. S. Abasian

"Geochronometry of sedimentogenetic and diagenetic reactions for glauconitic minerals": Clays and Clay Mins., in press.
Coauthor: G. S. Odin

"Geochronometry of clay minerals": Clays and Clay Minerals, in press.
Coauthor: G. S. Odin

""Dynamic" or non-modal assimilation within the Platoro Caldera complex: strontium isotope and trace element results": Geol. Soc. Amer. Prog. with Abs., v. 16, p. 604, 1984.
Coauthor: M. T. Murphy

"A preliminary investigation of host rock alteration associated with lead-zinc mineralization in the Metaline district, Washington": Geol. Soc. Amer. Prog. with Abs., v. 16, p. 617, 1984.
Coauthors: S. V. Panno, E. V. Sayre, G. Harbottle

"Geochemistry and petrology of evaporites cored from a deep-sea diapir at site 546, offshore Morocco": Initial reports of the Deep Sea Drilling Project vol. LXXIX, p. 309-340, 1984.
Coauthors: W. T. Holser, E. S. Saltzman

"Probable fictitious RB-Sr isochrons from the Florida Mountains, New Mexico": Eos, Trans. Amer. Geophys. Union, v. 65, p. 1132, 1984.
Coauthor: R. K. Matheney

"Natural analogs for radwaste disposal: elemental migration in igneous contact zones": Chem. Geol., in press.

"Rubidium-strontium geochronologic systematics in igneous contact zones: analog for 90-Sr and 137-Cs behavior in the near-field": Mat. Res. Soc. Final Prog. and Abstracts, 1984 Fall Meeting, p. 449-450, 1984.

Review of "Helium isotopes in nature" (by B. A. Mamyrin, I. N. Tolstikhin), Lithos, in press.

"Uranium mill tailings: transport from the pile": chapter three of NAS-NRC book on uranium mill tailings, in press.
Coauthor: P. A. Domenico

"Geochronologic and geochemical study of volcanic ashes from the Kirtland Formation, (Cretaceous), San Juan Basin, New Mexico": Geol. Soc. Amer. Spec. Ppr, in press.
Coauthor: J. K. Rigby

"Major and trace element distributions in experimentally leached chlorite and smectite-illite mixed layered clay mineral groups": Soc. Econ. Min. Paleon., in press.
Coauthor: R. S. DellaValle

"Investigations in uranium geochemistry: distribution of uranium as a function of sediment particle size": Uranium, v. 1, p. 227-247, 1984.
Coauthor: C. E. Olsen

"Geology and geochemistry of the Snowbird deposits, Mineral County, Montana": Econ. Geol., in press.
Coauthors: M. D. Metz, P. E. Rosenberg, R. E. Zartman

"Rubidium-strontium geochronologic systematics in igneous contact zones: analog for 90-Sr and 137-Cs behaviour in the near-field": in Scientific Basis for Nuclear Waste Management VIII (J. A. Stone, Et. al., eds.), in press.

"Trace element behavior within a fossil hydrothermal zone: strontium isotope data": Geol. Soc. Amer. (in press)
Coauthor: M. T. Murphy

"Chronology of Grants Mineral Belt uranium mineralization based on Rb-Sr study of clay minerals": Amer. Assoc. Petrol. Geol. Bull. (in press)

Technical Reports

"Geologic systems as analogs of repositories": NUREG/CP-052 (U.S. Nuclear Regulatory Commission), Status of NRC Sponsored research on HLW geochemistry, pp. 464-493, 1984.
Coauthors: H.A. Wollenberg, M. T. Murphy, S. Flexser

"Sr(87/86) studies of BWIP fracture filling minerals": MUREGCP-0052 (U.S. Nuclear Regulatory Commission), Status of NRC funded research on HLW geochemistry, p. 454-463, 1984.
Coauthor: H. A. Wollenberg

"Radioactive waste isolation in salt": Peer review of the Office of Nuclear Waste Isolation's Geochemical Program Plan: Tech. rpt., Argonne Nat. Lab. ANL/EES-TM-242, 28 p., 1984.
Coauthors: W. Harrison, M. Seitz, D. Fenster, A. Lerman, M. Tisue.

"Rubidium-strontium dating of sedimentary rocks"; in Bull. de Liaison et Informations Proj. 196 no. 2 (N. H. Gale, G. S. Odin, Eds.), p. 53-55.

"Natural analogues for radwaste disposal: elemental migration in igneous contact zones": Internat. workshop on natural analogs to the conditions around a final repository for HLW, KBS (Sweden), in press.

"Radioactive waste isolation in salt": Peer review of the Office of Nuclear Waste Isolation's report on the organic geochemistry of deep groundwaters from the Palo Duro Basin, Texas: Tech. Rpt., Argonne Nat. Labs. ANL/EES-TM-259, 30 p., 1984. Coauthors: D. Fenster, W. Harrison, M. G. Seitz, A. Lerman, V. C. Stamoudis

"Strontium isotopic study of fracture filling minerals in Grande Ronde basalt, Washington": Lawrence Berkeley Lab. Rpt. 17150, UC11, 12 pp.
Coauthors: M. T. Murphy, H. A. Wollenberg

"Geochemical study of Columbia River basalts": Lawrence Berkeley Lab. Rpt. 17151, UC11, 7 pp.
Coauthors: H. A. Wollenberg, S. Flexser, M. T. Murphy

Bryan C. Chakoumakos

Papers

"Systematics of the pyrochlore structure type, ideal $A_2B_2X_6Y$": J. Solid State Chem. 53, pp. 120-129.

"Quantum Mineralogy": Encyclopedia of Science and Technology, 6th Edition, McGraw-Hill, in press.

"Crystal chemical constraints on the formation of actinide pyrochlores": Scientific Basis for Nuclear Waste Management, VIII, Materials Research Society, p. 641-646.
Coauthor: R.C. Ewing

"Investigation of metamict and annealed pyrochlores by X-ray absorption spectroscopy": Scientific Basis for Nuclear Waste Management, VIII, Materials Research Society, p. 655-662.
Coauthors: R.B. Greegor, F.W. Lytle, G.R. Lumpkin and R.C. Ewing

Abstracts

"Molecular orbital modeling of silanol-water interactions": Geol. Soc. Amer. Abstr. with Progr. 16, p. 467.

Wolfgang E. Elston

Papers

"Subduction of Young Oceanic Lithosphere and Extensional Orogeny in Southwestern North America During Mid-Tertiary Time": Tectonics, v. 3, 1984, p. 229-250.

"Mid-Tertiary Ash-Flow Tuff Cauldrons, Southwestern New Mexico": Journal of Geophysical Research, v. 89, 1984, p. 8733-8750.

"Chronology, Morphology, and Stratigraphy of Pumiceous Pyroclastic-Flow (Ignimbrite) Deposits from the Eruption of Mount St. Helens on 5/18/80": Reports of Planetary Geology Program - 1983: National Aeronautics and Space Administration Technical Memorandum 86246, 1984, p. 125-126.
Coauthor: C.W. Criswell.

"Classification of Volcanoes of the Kane Patera Quadrangle of Io: Proportion of Lava Flows and Pyroclastic Flows": Reports of Planetary Geology Program - 1983 National Aeronautics and Space Administration Technical Memorandum 86246, 1984, p. 127-129.

"A Regression Model for the Temporal Development of Soil Pipes and Associated Gullies in the Alluvial-Fill Valley of the Rio Puerco, Central New Mexico": Reports of Planetary Geology Program - 1983, National Aeronautics and Space Administration Technical Memorandum 86246, 1984, p. 196-197.
Coauthor: C.D. Condit.

Abstracts

"Volcanoes of Kane Patera Quadrangle of Io Classified by Proportions of Lava Flows to Pyroclastic Flows": Abstracts of Papers Submitted to the Fifteenth Lunar and Planetary Science Conference, Lunar and Planetary Science Institute, Houston, pt. 1, 1984, p. 246-247.

"Ore Deposits Hosted by Cenozoic Volcanic Rocks, Southwestern New Mexico": Geological Society of America Abstracts with Programs, v. 16, p. 220. Presented at Annual Meeting, Rocky Mountain Section, Geological Society of America, Durango, CO, May 11, 1984.

"Transition from Laramide Orogeny to Mid-Cenozoic Extension, 48 to 35 Ma, Southwestern North America": Geological Society of America Abstracts with Programs, v. 16, 1984, p. 281. Presented at Annual Meeting, Cordilleran Section, Geological Society of America, Anchorage, AK, June 1, 1984

"Contact Metamorphism and Deformation of Carbonate Rocks Between Pluton and Caldera Floor: The Oligocene Emory Cauldron, Black Range, Grant and Sierra Counties, New Mexico": Abstracts of Papers Presented at Workshop on Recent Research in

Valles Caldera, Oct. 15-17, 1984, Los Alamos National Laboratory, p. 35-37. Presented at Workshop on Recent Research in Valles Caldera, Los Alamos, NM, Oct. 16, 1984.
Coauthors: Peter Maggiore, J.A. Grambling.

"Mid-Tertiary Ash-Flow Tuff Cauldrons, Southwestern New Mexico": Eos, Transactions of the American Geophysical Union, v. 65, 1984, p. 344.

Reviews

"Socorro Region II" (C.E. Chapin, ed.), New Mexico Geological Society Guidebook 34: Economic Geology, v. 79, 1984, p. 1214-1215.

"Albuquerque Country II" (J.A. Grambling and S.G. Wells, eds.), New Mexico Geological Society Guidebook 33: American Scientist, v. 72, 1984, p. 294.

"Italienische Vulkan-Gebiete III: Lipari, Vulcano, Stromboli, Tyrrhenisches Meer," (Hans Pichler, ed.), Sammlung Geologischer Fuehrer 69, Gebrueder Borntraeger, Berlin and Stuttgart, 270 p.: Volcano News, no. 17, 1984, p. 5.

"Mines and Minerals of the Great American Rift (Colorado-New Mexico)," by (R.W. Walker and M.B. Kennedy), Van Nostrand Reinhold Company, New York, 1983, 332 p.: American Mineralogist, v. 69, 1984, p. 817-818.

Newsletters

Newsletters 2-5: Working Group for Explosive Volcanism, International Association for Volcanology and Chemistry of the Earth's Interior.
Co-editor: Grant Heiken.

Field Trip Guide

"Outline of Field Trip, Day 3, Pyroclastic Deposits:" Workshop on Volcanic Blasts, International Association for Volcanology and Chemistry of the Earth's Interior, Working Group on Explosive Volcanism, Mount St. Helens, Aug. 13-17, 1984, 5 p.
Co-author: C.W. Criswell.

Rodney C. Ewing

Papers

"Alpha-Recoil Damage in Natural Zirconolite ($CaZrTi_2O_7$)": Journal of Nuclear Materials, v. 119, p. 102-109, 1984.
Coauthor: T.J. Headley

"Long-Term Radioactivity Release From Solidified High-Level Waste: III, The Effect of Canister Lifetime", Advances in Ceramics, v. 8, p. 636-644, 1984.
Coauthors: F.K. Altenhein and W. Lutze

"Ti-Site Geometry in Metamict, Annealed and Synthetic Complex Ti-Nb-Ta Oxides by X-Ray Absorption Spectroscopy", Radiation Effects in Insulators Proceedings Volume published in Nuclear Instruments and Methods in Physics Research, v. 2, p. 587-594, 1984.
Coauthors: R.B. Greegor, F.W. Lytle and R.F. Haaker

"Alteration Effects and Leach Rates of Basaltic Glasses: Implications for the Long-Term Stability of Nuclear Waste Form Borosilicate Glasses", Journal of Non-Crystalline Solids," v. 67, p. 305-321.
Coauthors: G. Malow and W. Lutze

"EXAFS/XANES Studies of Metamict Materials", Proceedings Volume of the Third International Conference on EXAFS, held at Stanford, California, in July of 1984, in press.
Coauthors: R.G. Greegor, F.W. Lytle and R.F. Haaker

"Crystal Chemical Constraints on the Formation of Actinide Pyrochlores", Proceedings Volume of the MRS Symposium on the Scientific Basis for Nuclear Waste Management, held in Boston, Massachusetts, in November of 1984, in press.
Coauthor: B.C. Chakoumakos

"Investigation of Annealed and Metamict Pyrochlore Minerals by X-Ray Absorption Spectroscopy", Proceedings Volume of the MRS Symposium on the Scientific Basis for Nuclear Waste Managment, held in Boston, Massachusetts, in November of 1984, in press.
Coauthors: R.B. Greegor, F.W. Lytle, B.C. Chakoumakos, and G.R. Lumpkin

"Natural Pyrochlores: Analogues for Actinide Host Phases in Radioactive Waste Forms", Proceedings Volume of the MRS Symposium on the Scientific Basis for Nuclear Waste Management, held in Boston, Massachusetts, in November of 1984, in press.
Coauthor: G.R. Lumpkin

"Long-Term Release from High Level Waste Glass - Part IV: The Effect of Leaching Mechanism", Proceedings Volume of the MRS Symposium on the Scientific Basis for Nuclear Waste Management, held in Boston, Massachusetts, in November of 1984, in press.
Coauthors: E. Freude, B. Grambow, W. Lutze and H. Rabe

"Basalt Glass: An Analogue for the Evaluation of the Long-Term Stability of Nuclear Waste Form Borosilicate Glasses", Proceedings Volume of the MRS Symposium on the Scientific Basis for Nuclear Waste Management, held in Boston, Massachusetts, in November of 1984, in press.
Coauthors: C.D. Byers, M.J. Jercinovic and K. Keil

Abstracts

"TEM, EXAFS and XANES Examination of Metamict, Orthorhombic, Nb-Ta-Ti Oxides", 27th International Geological Congress Moscow, USSR, August 4-14, p. 247-248, 1984.

Reports and Workshop Proceedings

"Radiation Effects in Sheet Silicates", Proceedings of a Workshop on Smectite Alteration sponsored by the Swedish Nuclear Power Corporation and the Department of Energy in Washington, D.C., Dec. 8-9, 1983, p. 8-9.

"Laboratory Analogy of Waste and Natural Glass alteration and Radionuclide Release" Final report for Argonne National Laboratory (Ref. No. 31-109-38-7184)
Coauthors: M.J. Jercinovic and K. Keil

John W. Geissman

Papers

"Paleomagnetic assessment of oroflexural deformation in west-central Nevada and relations to Paleozoic/Mesozoic accretion": Tectonics, v.3, p. 179-200.
Coauthors: J.T. Callian, J.S. Oldow, and S.E. Humphries.
"Paleomagnetism and rock magnetism of the Mississippian Leadville (carbonate) Formation and implications for the age of sub-regional dolomitization": Geophys. Res.. Letters, v.11, p. 649-652.
Coauthors: R.A. Horton and R.J. Tschauder

"Clinker deposits, Powder River Basin, Wyoming and Montana: A new source of high-fidelity paleomagnetic data for the Quaternary": Geophys. Res. Letters, v.11, p. 1231-1234.
Coauthors: A.H. Jones and D.A. Coates

"Preliminary paleomagnetic data from the Jurassic Humboldt Lopolith, West-Central Nevada: Evidence for thrust belt rotation in the Fencemaker Allochthon": Geophys. Res. Letters, v. 11, p. 828-832.
Coauthor: M.R. Hudson

Abstracts

"Time-stratigraphic equivalence of the Dubois greenstone and felsic volcanic-sedimentary gneiss terrain, Gunnison Uplift, Gunnison and Saguache Counties, Colorado": Geol. Soc. Amer., Abstr. with Progs., v. 16, 1984.
Coauthor: K.N. Shonk

"Applications of paleomagnetism to structural geology and tectonism in the Basin and Range Province: Examples, limitations, and cautionary remarks":

939

Geol. Soc. Amer., Abstr. with Progs., v. 16, p. 516, 1984.
Coauthors: M.R. Hudson, J.T. Callian, D.P. Hazlett, and J.A. Karachewski

"The Stillwater Complex is allochthonous": Geol. Soc. Amer., Abstr. with Progs., v. 16, p. 598, 1984.
Coauthor: D.W. Mogk

"Paleomagnetism of Oligocene/Miocene volcanic rocks in the Walker Lake area, west-central Nevada: Evidence for variable amounts of shear-related rotation within the Walker Lane.": Geol. Soc. Amer., Abstr. with Progs., v. 16, p. 461, 1984.
Coauthor: J.T. Callian

"Paleomagnetic data bearing on Laramide and younger deformation of the Northern Mosquito Range, Central Colorado": Geol. Soc. Amer., Abstr. with Progs., v. 16, p. 614, 1984.
Coauthor: W.L. Oppenheimer

"Paleomagnetism of the Leadville Formation (Mississippian), Central Colorado: data bearing on the age of regional dolomitization": Geol. Soc. Amer., Abstr. with Progs., v. 16, p. 544, 1984.
Coauthor: R.A. Horton, Jr.

"Further paleomagnetic data from Mesozoic plutons and layered rocks and their bearing on deformation in the Walker Lane area, West-Central Nevada": Eos, Trans. Amer. Geophys. Union, v. 65, 1984.
Coauthor: J.T. Callian

"Paleomagnetic constraints on the age of serpentinization of plagioclase-olivine cumulate rocks, banded series, Stillwater Complex, Montana": Eos, Trans. Amer. Geophys. Union, V. 65, 1984.
Coauthor: J. Saxton

Jeffrey A. Grambling

Papers

"Coexisting paragonite and quartz in sillimanitic rocks from New Mexico": American Mineralogist, v. 64, p. 79-87, 1984.

"The effects of Fe^{3+} and Mn^{3+} on aluminum silicate phase relations in north-central New Mexico, U.S.A.": Journal of Petrology, v. 25, in press.
Coauthor: M.L. Williams

"Geologic map of the Pecos Wilderness and adjacent areas, New Mexico": U.S. Geological Survey, in press.
Coauthors: R.L. Moench, J.M. Robertson

Abstracts

"Proterozoic isobaric surfaces and tectonism in northern and central New Mexico": Geological Society of America, Abstracts with Programs, v. 16, p. 222, 1984.

"Regional metamorphism in central and northern New Mexico, and implications for Proterozoic tectonics": Geological Society of America, Abstracts with Programs, v. 16, p. 522, 1984.

"Evidence for ideal solution of Fe, Mg, and Mn in garnet from northern New Mexico": Geological Society of America Abstracts with Programs, v. 16, p. 695, 1984.
Coauthor: M.L. Williams

"Coexisting paragonite and quartz in sillimanitic rocks from New Mexico": Eos, vol. 65, p. 334, 1984.

Stephen P. Huestis

Papers

"The inverse problem for heat flow data in the presence of thermal conductivity variations": Geophysical Journal of the Royal Astronomical Society, v. 78, p. 119-137, 1984.

"Constraints imposed on crustal heat production by the linear heat flow relation": Physics of the Earth and Planetary Interiors, v. 34, p. 261-270, 1984.

"Constraints imposed on crustal heat production by the linear heat flow relation": Terra Cognita, v. 4, p. 253-254, 1984.

John W. Husler

Papers

"Fast Pipetting Technique": J. Chem. Ed., p. 684, Aug. 1984.

"Petrology and Geochemistry of Samples from Bed-Contact Zones in Tunnel Bed 5, U12g-Tunnel, Nevada Test Site, Sandia Report SAND84-1060, Oct. 1984.
Coauthors: James Connolly, et al.

Abstract

"Phase chemistry of recent andesites, dacites, and rhyodacites of Volcan Pico de Orizaba, Mexican Volcanic Belt: xenolithic contamination": Geological Society of America Paper No. 43798, Reno, Nevada, 1984.
Coauthors: M. Jackson and A. M. Kudo

Klaus Keil

Papers

"Lithification of gas-rich chondrite regolith breccias by grain boundary and localized shock melting": Earth Planet. Sci. Lett., v. 66, 1983, p. 1-10.
Coauthors: A. Bischoff, A.E. Rubin and D. Stoffler

"Cosmic setting for chondrule formation": In Chondrules and Their Origins (ed. E.A. King), Lunar Planet. Institute, Houston, Texas, 1983, p. 262-278.
Coauthors: G.J. Taylor and E.R.D. Scott

"Apollo 16: Impact melt sheets, contrasting nature of the Cayley Plains and Descartes Mountains, and geologic history": Proc. 14th Lunar Planet. Sci. Conf., Part 2, J. Geophys. Res., v. 89, 1984, p. B513-B524.
Coauthors: J.P. McKinley, G.J. Taylor, M.S. Ma and R.A. Schmitt.

"Relict and other anomalous grains in chondrules: Implications for chondrule formation": ibid, p. B559-B566.
Coauthors: A. Kracher and E.R.D. Scott.

"Composition and origin of enstatite in E chondrites": ibid, p. B567-B572.
Coauthors: S.G. McKinley and E.R.D. Scott.

"Al-rich objects in ordinary chondrites: Related origin of carbonaceous and ordinary chondrites and their constituents": Geochim. Cosmochim. Acta, v. 48, 1984, p. 693-709.
Coauthor: A. Bischoff.

"Apollo 14 aluminous mare basalts and their link to KREEP": Lunar Planet. Sci., v. XV, 1984, p. 224-225.
Coauthors: T. Dickinson, G.J. Taylor, R.A. Schmitt, M.R. Smith and S.S. Hughes.

"An apatite-rich lithology from lunar meteorite ALHA81005 - An example of magma mixing?": ibid, p. 314-315.
Coauthors: C.A. Goodrich and G.J. Taylor.

"Petrology and chemistry of hyper-ferroan anorthosite and other clasts from lunar meteorite ALHA81005": ibid, p. 316-317.
Coauthors: C.A. Goodrich, G.J. Taylor, W.V. Boynton and D.H. Hill.

"Petrology of metamorphosed carbonaceous chondrites": ibid, p. 740-741.
Coauthors: E.R.D. Scott and G.J. Taylor.

"Primitive nature of ordinary chondrite matrix materials": ibid, p. 848-849.
Coauthors: G.J. Taylor, E.R.D. Scott, W.V. Boynton, D.H. Hill, T.K. Mayeda and R.N. Clayton

"Petrology and classification of 145 small meteorites from the 1977 Allan Hills collection": In "Field and Laboratory Investigations of Meteorites from Victoria Land, Antarctica" (eds. A.B. Marvin and B. Mason), Smiths. Contr. Earth Sci., v. 26, 1984, p. 55-71.
Coauthor: S.G. McKinley.

"Matrix material in type 3 chondrites - occurrence, heterogeneity and relationship with chondrules": Geochim. Cosmochim. Acta, v. 48, 1984, p. 1741-1757.
Coauthors: E.R.D. Scott, A.E. Rubin and G.J. Taylor.

"Size-distributions of chondrule types in the Inman and Allan Hills A77011 L3 chondrites": Meteoritics, v. 19, 1984, p. 135-143.
Coauthor: A.E. Rubin.

"Petrology and geochemistry of samples from bed-contact zones in Tunnel Bed 5, U12g-Tunnel, Nevada Test Site": Sandia Natl. Laboratories, SAND84-1060, 1984, p. 1-44.
Coauthors: J.R. Connolly, W.L. Mansker, C.C. Allen, J. Husler, R. Lowy, D.R. Fortney and A.R. Lappin.

"Petrology and chemistry of hyperferroan anorthosites and other clasts from lunar meteorite ALHA81005": Proc. 15th Lunar Planet. Sci. Conf., Part 1, J. Geophys. Res., v. 89, 1984, p. C87-C94.
Coauthors: C.A. Goodrich, G.J. Taylor, W.V. Boynton and D.H. Hill.

Abstracts

"Matrix material in type 3 ordinary chondrites - Composition and relationships with chondrules": Ninth Symp. Antarctic Meteorites, Natl. Inst. Polar Res., Tokyo, Japan, 1984, p. 29-30.
Coauthors: E.R.D. Scott and G.J. Taylor.

"Ca-Al-rich objects in ordinary chondrites: significance for the origin of chondrules and chondrites": Fortschr. Mineral., Beiheft 1, 1983, p. 24-25.
Coauthors: A. Bischoff and D. Stoffler.

"A natural basaltic glass analogue for the long-term extrapolation of nuclear waste glass aging": Ann. Meet. Materials Res. Soc., Boston, 1984.
Coauthors: C. Byers, R.C. Ewing and M.J. Jercinovic.

"Abundant Al-rich objects in ordinary chondrites": Meteoritics 18, 1983, p. 268-269.
Coauthors: A. Bischoff and D. Stoffler.

"Relict grains and the significance of collisions during chondrule formation": Meteoritics 18, 1983, p. 329-330.
Coauthors: A. Kracher and E.R.D. Scott.

"Type 3 ordinary chondrites - Metamorphism, brecciation and parent bodies": Meteoritics 18, 1983, p. 393-394.

"Meteoritic breccias": Intern. Chemical Congr. of Pacific Basin Soc., Honolulu, Hawaii, 1984, p. 07I20.

"Preliminary characterization of the petrologic, bulk and mechanical properties of large samples of lithophysal, welded tuff": Eos, 65, 1984, p. 1081.
Coauthors: R.H. Price, F.B. Nimick and J.R. Connolly.

Professional talks presented

"Origin of meteorites - From asteroids, comets, Moon and Mars": Four Corners Geological Society, Farmington, N.M., Jan. 13, 1984.

"Origin of meteorites - From asteroids, comets, Moon and Mars": New Mexico Institute of Mining and Technology, Socorro, N.M., Feb. 2, 1984.

"Origin of meteorites - From asteroids, comets, Moon and Mars": Sandia National Laboratories, Albuquerque, N.M., March 28, 1984.

"The soil composition of Mars": European Planetary Science Symposium, Heidelberg, West-Germany, April 23-29, 1984.

"The soil composition of Mars": Dept. of Mineralogy and Petrology, Univ. of Munster, West-Germany, May 16-19, 1984.

"A voyage through our solar system": German Summer School, Dept. of Modern and Classical Languages, Univ. of New Mexico, Taos, N.M., June 29-July 1, 1984.

"Schollhornite, $Na_{0.3}(H_2O)_1[CrS_2]$, a new mineral in the Norton County enstatite achondrite": 47th Meteoritical Soc. Meet., Albuquerque, N.M., July 30-Aug. 2, 1984.
Coauthors: A. Okada, B.F. Leonard and I.D. Hutcheon.

"Origin of soil of Mars": Dept. of Geology., Univ. of New Mexico, Albuquerque, N.M., Sept. 13, 1984.

"Origin of meteorites - From asteroids, comets, Moon and Mars": Albuquerque Geological Soc. Meeting, Sept. 18, 1984.

"Past and future exploration of Mars": UNM Students for the Exploration and Development of Space, UNM, Oct. 3, 1984.

"Martian soil and prospects for rover missions": Dept. of Geological Sciences, Univ. of Colorado, Boulder, Colorado, Oct. 31, 1984.

"Composition of the soil of Mars": Suess Symposium, Univ. of California, LaJolla, California, Dec. 14, 1984.

"Meteoritic breccias": PacChem 1984 Conference, Honolulu, Hawaii, Dec. 21, 1984.

Professional talks coauthored

"Apollo 14 aluminous mare basalts and their link to KREEP": 15th Lunar and Planet. Sci. Conf., Houston, Texas, March 11-16, 1984.
Coauthors: T. Dickinson, G.J. Taylor, R.A. Schmitt, M.R. Smith and S.S. Hughes.

"An apatite-rich lithology from lunar meteorite ALHA81005 - An example of magma mixing?": ibid, March 11-16, 1984.
Coauthors: C.A. Goodrich and G.J. Taylor.

"Petrology of metamorphosed carbonaceous chondrites": ibid, March 11-16, 1984.
Coauthors: E.R.D. Scott and G.J. Taylor.

"Primitive nature of ordinary chondrite matrix materials": ibid, March 11-16, 1984.
Coauthors: G.J. Taylor, E.R.D. Scott, W.V. Boynton, D.H. Hill, T.K. Mayeda and R.N. Clayton.

"Matrix material in type 3 ordinary chondrites - Composition and relationship with chondrules": 9th Symp. on Antarctic Meteorites, Tokyo, Japan, March 22, 1984.
Coauthors: E.R.D. Scott and G.J. Taylor.

"Perovskite-hibonite-spinel-bearing inclusions and Al-rich chondrules and fragments in enstatite chondrites": 47th Meteoritical Soc. Meeting, Albuquerque, N.M., July 30-August 2, 1984.
Coauthors: A. Bischoff and D. Stoffler.

"Fine-grained millimeter-sized objects in type 3 ordinary chondrites and their relation to chondrules and matrix": ibid, July 30-August 2, 1984
Coauthors: S.I. Recca, E.R.D. Scott and G.J. Taylor.

"The Kendleton L4 fragmental breccia-parent body surface history": ibid, July 30-August 2, 1984.
Coauthors: A.J. Ehlmann, E.R.D. Scott, H. Weber, L. Schultz, T.K. Mayeda and R.N. Clayton.

"Petrology of some ordinary chondrite regolith breccias - implications for parent body history": ibid, July 30-August 2, 1984.
Coauthors: C.V. Williams, A.E. Rubin and A. San Miguel.

"Petrology of the Palo Blanco Creek eucrite and age of shock history": ibid, July 30-August 2, 1984.
Coauthors: T. Dickinson, L. LaPaz, D.E. Bogard, R.A. Schmitt, M.R. Smith and M. Rhodes.

"Ca-Al-rich objects in ordinary chondrites: Significance for the origin of chondrules and chondrites": German Mineralogical Soc. Meeting, 1983.
Coauthors: A. Bischoff and D. Stoffler.

"A natural basaltic glass analogue for the long-term extrapolation of nuclear waste glass aging": Ann. Meet. Materials Res. Soc., Boston, 1984.
Coauthors: C. Byers, R.C. Ewing and M.J. Jercinovic.

Cornelis Klein

Book

Manual of Mineralogy, 20th edition (completely new and revised edition), by C. Klein and C.S. Hurlbut, published Dec. 1984, John Wiley and Sons, New York, 596 pp.

Papers and abstracts

"Metamorphosed banded iron-formation from the 3800 Ma Supracrustal sequence, southern West Greenland," (with Robert F. Dymek) (abstract), Abstract volume II, (sections 04, 05), International Geol. Congress, Moscow, p. 324.

Guidebook editor, Guidebook for Field Seminar, Precambrian Paleobiology Research Group, South Africa, 1984 (June 13-July 4).

Albert M. Kudo

Papers

"High-potassium intrusive rocks of the Crandall ring-dike complex, Absaroka Mountains, northwestern Wyoming: in press, Geological Society of America, Bulletin.
Coauthor: D.E. Broxton

"Petrology and geochemistry of the Paliza Canyon Formation and the Bearhead Rhyolite, Keres Group, Jemez Mountains, New Mexico": in press, Geological Society of America, Bulletin.
Coauthor: K.P. Guilbeau

"Phase chemistry of recent andesites, dacites and rhyodacites of Volcan Pico de Orizaba, Mexican Volcanic Belt: evidence for xenolithic contamination": in press, Geofisica Internacional, Special Issue on the Mexican Volcanic Belt II.
Coauthors: M.E. Jackson and J.W. Husler.

Abstracts

"Geology of the Carrizo Mountains, Lincoln County, New Mexico": N.M. Geological Society Spring Meeting, Abstracts and Programs, also published in New Mexico Geology, v. 6, no. 4, p. 85-86.
Coauthors: D.J. Pertl and J.A. Campbell.

"Geology and petrochemistry of Lobato Andesite, Polvadera Group, northern Jemez volcanic field: in Heiken, G. (compiler) Recent researches in the Valles Caldera, Los Alamos National Laboratory, Report LA-10339-C, p. 51-53.
Coauthors: B.S. Singer and R.A. Lawrence

"Phase chemistry of recent andesites, dacites, and rhyodacites of Volcan Pico de Orizaba, Mexican Volcanic Belt: xenolithic contamination of two magmas": Geological Society: Abstracts with Programs, 16, p. 549.
Coauthors: M.E. Jackson and J.W. Husler

"Petrogenesis of Sunlight Basin Intrusions, Absaroka Mountains, Park County, Wyoming": Eos, 65, no. 45, p. 1122.
Coauthors, E.M. Colvard and B.A. Harvey

Barry S. Kues

Papers

"A chiton from the Flechado Formation (Middle Pennsylvanian) of northern New Mexico": New Mexico Journal of Science, v. 23, p. 19-22.

"Pennsylvanian stratigraphy and paleontology of the Taos area, north- central New Mexico": New Mexico Geological Society Field Conference Guidebook 35, p. 107-114.

"Paleozoic paleontology," in Williams, J.L. (ed.), New Mexico in Maps, 2nd Edition: University of New Mexico Press, in press.

"Mesozoic paleontology," ibid, in press.

Cenozoic paleontology," ibid, in press.

"Geologic history of New Mexico," ibid, in press.
Coauthor: J.F. Callender

"Mosasaur remains from the Lewis Shale (Upper Cretaceous), southwestern Colorado": Journal of Paleontology, in press.
Coauthor: S.G. Lucas

"Depositional environments and paleontology of Lewis Shale to lower Kirtland Shale sequence (Upper Cretaceous), Bisti area, northwestern New Mexico": New Mexico Bureau of Mines & Mineral Resources Circular 191, in press.
Coauthor: P.J. Hutchinson

"Gastropods from the Wild Cow Formation (Upper Pennsylvanian), Manzano Mountains, New Mexico": New Mexico Geology, in press.

Abstracts

"A new Late Triassic invertebrate and vertebrate fauna from the Chinle Formation, eastern New Mexico": Geological Society of America, Abstracts with Programs, v. 16, p. 227.
Coauthors: K.K. Kietzke and S.G. Lucas

"Bivalves from the Red Tanks Member, Madera Formation (Upper Pennsylvanian-Lower Permian) of central New Mexico": New Mexico Geology, v. 6, p. 84.

"Gastropods from the Red Tanks Member, Madera Formation (Upper Pennsylvanian-Lower Permian) of central New Mexico": New Mexico Journal of Science, in press.

Spencer G. Lucas

Papers

"A new look at the discovery of "Peking Man": Haliksa'i (UNM Contributions to Anthropology) v. 3, p. 148-154.
Coauthor: J.C. Sobus

Early Paleocene vertebrates, stratigraphy and biostratigraphy, West Fork of Gallegos Canyon, San Juan Basin, New Mexico: New Mexico Geology, v. 6, p. 56-60.

Correlation of Eocene rocks of the Northern Rio Grande rift and adjacent areas: Implications for Laramide tectonics: New Mexico Geological Society Guidebook, v. 35, p. 123-128.

Choeropsis Leidy, 1852 (Artiodactyla): Proposed conservation under the plenary powers. Z. N. (S.) 2407: Bulletin of Zoological Nomenclature, v. 41, p. 94-96.
Coauthor: R.M. Schoch

Late Cretaceous (Lancian) dinosaurs from the McRae Formation, Sierra County, New Mexico: New Mexico Geology, v. 6, p. 72-77.
Coauthors: R.P. Lozinsky, A.P. Hunt, D.L. Wolberg

Note

China - A visit to the Sichuan Basin: Society of Vertebrate Paleontology News Bulletin, no. 132, p. 50-52.

Abstracts

"Plio-Pleistocene proboscidean Stegomastodon from the Palomas Formation, South-Central New Mexico": New Mexico Geology, v. 6, p. 14, 1984.
Coauthors: R.P. Lozinsky and T.R. Logan

"Blancan-Irvingtonian boundary in the Ceja Member of the Santa Fe Formation, Tijeras Arroyo, Albuquerque area, New Mexico": New Mexico Geology, v. 6, p. 14, 1984.
Coauthors: T.R. Logan and J.C. Sobus

"Rarity of dinosaurs in the Upper Jurassic Morrison Formation, New Mexico": Geological Society of America, Abstracts with Programs, v. 16, p. 225, 1984.
Coauthor: A.P. Hunt

"A New Late Triassic invertebrate and vertebrate fauna from the Chinle Formation, eastern New Mexico": Geological Society of America, Abstracts with Programs, v. 16, p. 227.
Coauthors: B.S. Kues and K.K. Kietzke

"Upper Triassic - Upper Jurassic Stratigraphy, fossil vertebrates and depositional environments, Bull Canyon, Guadalupe County, east-central New Mexico": Geological Society of America, Abstracts with Programs, v. 16, p. 245.
Coauthors: K.K. Kietzke, J. Sobus, G. Weaclock, N.J. Mateer and A.P. Hunt

"Puercan (early Paleocene) biostratigraphy, Nacimiento Formation, San Juan Basin, New Mexico": Geological Society of America, Abstracts with Programs, v. 16, p. 245.

"Late Cretaceous dinosaur discoveries from the McRae Formation, Sierra County, New Mexico": Abstracts of the Symposium on Southwestern Geology and Paleontology, v. 1984, p. 12.
Coauthors: R.P. Lozinsky, A.P. Hunt and D.L. Wolberg

"Punctuated evolution of a Late Cretaceous ceratopsian dinosaur from New Mexico": New Mexico Geology, v. 6, p. 83-84.
Coauthor: A.P. Hunt

"Middle Jurassic Stratigraphy and fossil fishes, Bull Canyon, Guadalupe County, east-central New Mexico": New Mexico Geology, v. 6, p. 84.
Coauthor: K.K. Kietzke

"Biostratigraphic significance of Coryphodon species from the Regina Member (lower Eocene), San Jose Formation, San Juan Basin, New Mexico": New Mexico Geology, v. 6, p. 84.

Book reviews

"Phylogenie et Paleobiogeographie; Livre Jubilaire en l'Honneur de Robert Hoffstetter": Journal of Vertebrate Paleontology, v. 4, p. 164-165.
Coauthor: D.L. Wolberg

"Second International Symposium on Mesozoic Terrestrial Ecosystems": Cretaceous Research, v. 5, p. 297-300.
Coauthor: N.J. Mateer

Ian D. R. Mackinnon

Papers

"Melting, ablation and vapor phase condensation during atmospheric passage of the Bjurbole meteorite": Jour. Geophys. Res., v. 89, p. B597-B604, 1984.
Coauthor: F. J. M. Rietmeijer

"Micas in experimentally shocked gneiss": Jour. Geophys. Res., v. 89, p. B685-B699, 1984.
Coauthor: P. Lambert

"The El Chichon stratospheric cloud: solid particulates and settling rates": Jour. Volcanol. and Geotherm. Res., v. 23, p. 125-146, 1984.
Coauthors: J. L. Gooding, D. S. McKay, and U. S. Clanton

"Proposed structures for poorly characterized phases in C2M carbonaceous chondrite matrices": Nature, v. 309, p. 240-242, 1984.
Coauthor: M. E. Zolensky

"Bismuth in interplanetary dust": Nature, v. 311, p. 135-137, 1984.
Coauthor: F. J. M. Rietmeijer

"Accurate stratospheric particle size distribution from a flat-plate collection surface": Jour. Geophys. Res., in press, 1984.
Coauthor: M. E. Zolensky

"Surface sulfur measurements on stratospheric particles": Geophys. Res. Lett., in press, 1984.
Coauthor: D. W. Mogk

Abstracts

"Carbonaceous matter in chondritic porous interplanetary dust particles": Protostars and Planets II Conference, Tucson, AZ., 1984.
Coauthor: F. J. M. Rietmeijer

"Textures of experimental condensates and chondritic porous aggregates": Protostars and Planets II Conference, Tucson, AZ., 1984.
Coauthors: F. J. M. Rietmeijer and J. A. Nuth

"Poorly characterized phases in C2M carbonaceous chondrites: proposed structures and significance": Lunar and Planet. Sci. Conf. XV, 501-502, 1984.
Coauthor: M. E. Zolensky

"Towards a complete inventory of stratospheric dust particles, with implications for their classification": Lunar and Planet. Sci. Conf. XV, 963-964, 1984.
Coauthors: M. E. Zolensky and D. S. McKay

"Layered silicates in Chondritic Porous Aggregate W7029*A: A case of primary growth": Lunar and Planet. Sci. Conf. XV, 687-688, 1984.
Coauthor: F. J. M. Rietmeijer

"High resolution electron microscopy of tochilinite: a terrestrial analogue of an important extraterrestrial phase": Acta Cryst., A40, C388, 1984.
Coauthor: M. E. Zolensky

"Diagenesis in interplanetary dust: Chondritic porous aggregate W7029*A": Meteoritics, 19, 301, 1984.
Coauthor: F. J. M. Rietmeijer

"A geological perspective on analytical electron microscopy": Australian Geol. Congr., in press, 1984.

"High resolution transmission electron microscopy of mixed-layer clays": Proc. Clay Mins. Soc., 70, 1984.
Coauthor: R. Klimentidis
"The abundance and origin of Aluminum-rich particulates in the stratosphere": Trans. Amer. Geophys. Union, Eos, v. 65, p. 837, 1984.
Coauthor: M. E. Zolensky

Reports

"AEM of Extraterrestrial Materials": Final Report to NASA for Contract No. NAS 9-17005, 90 pp, September, 1984.

Leslie D. McFadden

Papers

"Changes in the Content and Composition of Pedogenic Iron Oxyhydroxides in a Chronosequence of Soils in Southern California": Quaternary Research, in press.
Coauthor: D.M.Hendricks.

"Late Quaternary Geomorphic History of the Silver Lake Area: An Example of the influence of Climatic Changes on Desert Piedmont Evolution in the Eastern Mojave Desert of California": in Western Geological Excursions, Volume 1, Lintz, J. (ed), 1984 Guidebook for the 1984 Annual Meetings of the Geological Society of American and Affiliated Societies at Reno, Nevada, p. 69-87. (Technical Review by U.S. Geological Survey).
Coauthors: Wells, S.G., Dohrenwend, J.C., Bullard, T.F., Feilberg, B., Ford, R.L., Grimm, J.P., Miller, J.R. Orbock, S.M., Pickle, J.D.

"Rates and trends of Late Cenozoic Landscape Evolution Degradation in the Area of the Cima Volcanic Field, Eastern Mojave Desert, California": ibid, p. 150-161.
Coauthors: Dohrenwend, J.C., Wells, S.G., Turrin, B.D.

"Types and Rates of Late Cenozoic Geomorphic Processes on Lava Flows of the Cima Volcanic Field, Mojave Desert": ibid, p. 116-133.
Coauthors: Wells, S.G., Dohrenwend, J.C., Turrin, B.D., Mahrer, K.D.

"Cumulic Soils Formed in Eolian Parent Materials on Flows of the Cima Volcanic Field, Mojave Desert, California": ibid, p. 134-139.
Coauthors: Wells, S.G., Dohrenwend, J.C., Turrin, B.D.

"Quaternary Geology of the Eastern Mojave Desert - First Day Road Guide": ibid, p. 102-121.
Coauthors: Dohrenwend, J.C., Wells, S.G., Turrin, B.D., McKittrick, M.A.

"Quaternary Geology of the Eastern Mojave Desert - Second Day Road Guide": ibid, p. 160-177.
Coauthors: Dohrenwend, J.C., Wells, S.G., Turrin, B.D., Mahrer, K.D., McKittrick, M.A.

"Excerpts from McFadden, L.D., 1978, Soils of the Canada del Oro Valley, Southern Arizona": in Geomorphic Surfaces in the Tucson Basin, Arizona - A Field Guidebook, Ely, L.L. and Baker, V.R. (eds), p. 80-96.

Abstracts

"The Recognition of a New Threshold of Soils Formation in Soils at Cajon Creek, Southern California": in Abstracts with Programs, Geological Society of America Annual Meetings, v. 16, no. 6, p. 588.
Coauthors: Weldon, R.J.

"Rates and Amounts of Quaternary Faulting on the VLA Fault Scarp, northeastern San Agustin Plains": in Abstracts with Programs, Geological Society of America Rocky Mountain Section Meetings, v. 16, no. 4, p. 248.
Coauthors: Menges, C.M., Kawaguchi, G.H., Lozinski, R.P.

Stephen G. Wells

Articles

"K-Ar Dating of the Cima Volcanic Field, eastern Mojave Desert, California: Late Cenozoic volcanic history and landscape evolution": Geological Society of America, Geology, v. 12, p. 163-167.
Coauthors: J. Dohrenwend, L. McFadden, B. Turrin

"Types and rates of late Cenozoic geomorphic processes on lava flows of the Cima volcanic field, eastern Mojave desert, California" in Dohrenwend, J.C., ed., Surficial geology of the eastern Mojave Desert, California: Geological Society of America 1984 Annual Meeting Guidebook, Reno, Nevada, p. 116-133.
Coauthors: Dohrenwend, J.C., McFadden, L.D., Turrin, B.D., Mahrer, K.D. (U.S. Geological Survey Technical Review)

"Late Quaternary geomorphic history of the Silver Lake area: an example of the influence of climatic changes on desert piedmont evolution in the eastern Mojave Desert of California": ibid, p. 69-87.
Coauthors: McFadden, L.D., Dohrenwend, J.C., Bullard, T.F., Feilberg, B., Ford, R.L., Grimm, J.P., Miller, J.R., Orbock, S.M., and Pickle, J.D.

"Geochronology and eruptive history of the Cima volcanic field, eastern Mojave Desert, California": ibid, p. 88-100.
Coauthors: Turrin, B.D., Dohrenwend, J.C., McFadden, L.D.

"Cumulic soils formed in eolian parent materials on flows of the Cima volcanic field, Mojave Desert, California": ibid, p. 134-139.
Coauthors: McFadden, L.D., Dohrenwend, J.C., Turrin, B.D.

"Rates and trends of late Cenozoic landscape degradation in the area of the Cima volcanic field, eastern Mojave Desert, California": ibid, p. 150-161. Coauthors: Dohrenwend, J.C., Turrin, B.D., and McFadden, L.D.

Roadlogs

"First Day Road Guide" in Dohrenwend, J.C., ed., Surficial Geology of the Eastern Mojave Desert, California: Geological Society of America 1984 Annual Meeting Guidebook, Reno, Nevada, p. 1-23
Coauthors: Dohrenwend, J.C., McFadden, L.D., McKittrick, M.A., Turrin, B.D.

"Second Day Road Guide"; ibid, p. 25-43.
Coauthors: Dohrenwend, J.C., McFadden, L.D., Turrin, B.D., Mahrer, K.D., and McKittrick, M.A.

"Third Day Road Guide"; ibid, p. 44-68.
Coauthors: Dohrenwend, J.C., McKittrick, M.A., Lattman, L.H., Smith, R.S.U.

Papers in Press

"Late Cenozoic Landscape Evolution on Lava Flow Surfaces of the Cima Volcanic Field, Mojave Desert, California": Geological Society of America, Bulletin.
Coauthors: Dohrenwend, J.C., McFadden, L.D., Turrin, B.D., Mahrer, K.D.

"Applications in Geomorphology to Reclamation" in Reith, C.C., and Potter, L.D., eds., Methods in Reclamation Science: University of New Mexico Press
Coauthor: Potter, L.D.

Abstracts

"Sheetflood Bedforms on Late Quaternary Alluvial Fan Surfaces in the Southwestern United States": Geological Society of America, Abstracts with Programs, v. 16, p. 690.
Coauthor: Dohrenwend, J.C.

"Cinder Cone Degradation in the Cima Volcanic Field, Mojave Desert, California": Geological Society of America, Abstracts with Programs, v. 16, p. 491.
Coauthors: Dohrenwend, J.C., Turrin, B.D.

Lee A. Woodward

Papers

"Potential for significant oil and gas fracture reservoirs in Cretaceous rocks of the Raton Basin, New Mexico": American Association of Petroleum Geologists Bulletin, v. 68, no. 5, p. 628-636.

"Basement control of Tertiary intrusions and associated mineral deposits along Tijeras-Canoncito fault system, New Mexico": Geology, v. 12, p. 531-533.

"Geology and hydrocarbon potential of Raton Basin, New Mexico": Four Corners Geological Society, Oil and Gas Fields of the Four Corners Area, v. 3, p. 789-798.

"Sherman A. Wengerd": Four Corners Geological Society, Oil and Gas Fields of the Four Corners Area, vol. 3, p. xvii-xviii.

Book

"Geology of Sierra Nacimiento, New Mexico": New Mexico Bureau of Mines and Mineral Resources, Memoir 43, in press.

Map

"Tectonic map of the Rocky Mountain region of the United States," Geological Society of America, in press.

Map Review

"The generalized structural, lithologic, and physiographic provinces in fold and thrust belts of the United States (exclusive of Alaska and Hawaii)": American Association of Petroleum Geologists Bulletin, v. 68, p. 1912-1913.

Robyn Wright

Abstracts

"Cyclic sedimentation within the Upper Cretaceous Pt. Lookout Fm: A model for strandline progradation and sandstone distribution": American Association Petroleum Geologists Bull., v. 68/4, p. 541, 1984.

"Grain size vertical progressions as an exploration tool": American Association Petroleum Geologists Bull., v. 68/4, p. 448, 1984.
Coauthors: J.B. Anderson; E. Watkins

"Development of glacial topography on the Antarctic continental shelf and cessation of deep sea fan development around the margin": Society of Economic Paleontologists and Mineralogists, Abstracts with Programs, annual meeting San Jose, California, August, 1984.
Coauthors: J.B. Anderson, B. Andrews

Proprietary Reports

"Geology of Antarctica: Tectonics, Stratigraphy, and Basin Development": Proprietary Publication, Amoco International Production Co., 364 pp., 1984.
Coauthors: J.B. Anderson, D.J. Matty, B. Andrews

Crayton J. Yapp

Papers

"D/H variations of meteoric water in Albuquerque, New Mexico, USA", Journal of Hydrology, vol. 76, p. 63-84, 1985.

"Stable hydrogen isotopes in iron oxides - II. D/H variations among natural goethites", Geochimica et Cosmochimia Acta, vol. 49, p. 487-495, 1985. Coauthor: M. Pedley.

"Seasonal contributions to the climatic variations recorded in tree ring D/H data", Journal of Geophysical Research 90, D2, p. 3747-3752, 1985. Coauthor: S. Epstein.

5. RESEARCH PROJECTS OR CREATIVE WORK IN PROGRESS

Roger Y. Anderson

Sponsored Research

National Science Foundation Grant NSF EAR81-13072, "Effect of Mount St. Helens Tephra on Lakes in Washington", $64,000.

Proposals Submitted

"Workshop on High Resolution Climatic records in the Holocene" (rejected).

"Variability of precipitation in Mid-Continent of North America", in review.

Member - USGS Paleolimnology Project, Walker Lake, Nevada; coring at Walker Lake.

Douglas G. Brookins

Sponsored Research

"Quantification of atmospheric inputs with strontium isotope ratios": National Science Foundation (NSF DEB-8103538). Total grant period-three years, June 1, 1981 - May 31, 1984; $305,000.

Co-investigator: J. A. Gosz, Dept. Biology, UNM

"Geochemical Study of the WIPP Site Area": Sandia National Laboratories, June 1, 1983 - Dec. 31, 1984, $74,670.

"Mineralogic, Sr(87/86) and total Sr study of BWIP fracture filling minerals and deep waters": Rockwell Hanford Operations (USDOE), SA-374; June 4, 1984-Dec. 31, 1984, $24,800.

"Thermal Ionization Mass Spectrometer", U. S. Department of Energy University Equipment Upgrade Program, Oct. 1, 1984 - Sept. 30, 1985, $300,000 (*Note: Matched by $80,000 UNM funds).

Proposals Submitted

"Indoor radon monitoring program for central New Mexico": submitted to NSF and to EPA, one year, $90,000.

"Alkaline and alkaline earth budget at the Oklo natural reactor, Gabon", submitted to USDOE, one year, $70,000.

"Cataloguing natural analogs for US radwaste program", submitted to USDOE, one year, $59,000. (*A smaller version of this has also been submitted to USNRC-ORNL).

Unsponsored Research

MS Theses completed in 1984:

1) M. S. Abashian, "The Eldora - Bryan Mountain stock as a natural analog for buried radioactive wastes: geochemistry and geochronology"
2) R. K. Matheney, "Rb-Sr geochronologic study of the Florida Mountains, New Mexico"

Studies on the provenance of the Morrison Formation, western New Mexico (with R. T. Hicks, R. M. Lowy)

Geochronological study of World evaporites (with W. T. Holser, U. Oregon)

Geochronologic and geochemical study of Precambrian and suspected Precambrian basement rocks in New Mexico (with A. Majumdar, R. K. Matheney, R. Abitz, J.A.Grambling, D. B. Ward)

Study of Precambrian rocks from the Sinai Peninsula (with A. E. Shimron, Israel Geol. Surv.)

Rb-Sr study of clay minerals (proposals pending)

Geochronologic studies in Alaska, (with M. L. Silberman, USGS)

Studies of hydrothermal ore deposits in the western U.S.

Study of radon emissions in homes in the Albuquerque area (RAC funding)

M.S. theses in progress:

1) "Geochemical studies of the Platoro Caldera complex, Colorado": M. T. Murphy
2) "Geology and geochemistry of uranium occurrences in the Datil area": A. Leonard
3) "Geology and trace element studies in the San Pedro Mountains": S. W. Whiteley
4) "Geochemical constraints on origin of gold deposits, Gold Hill, NM": R. A. Beard

Ph.D. dissertation in progress:

"Actinide adsorption studies: application to uranium mill tailings": P. A. Longmire

Bryan C. Chakoumakos

Unsponsored Research

Petrology of the Metasomatic aureole of the Harding Pegmatite, Taos County, New Mexico.

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Atomic arrangement of solvated monosilicic acid, from theoretical considerations.

Silicon in fivefold coordination and its role as a reactive intermediate in the surface chemistry of glasses.

Wolfgang E. Elston

Sponsored Research

"Application of Volcanology to Lunar and Planetary Geology," NASA grant NGR 32-004-052, Supplement 19, $32,000, May 15, 1984 to May 14, 1985.

"Cenozoic Extensional Orogeny of the New Mexico Segment of the Basin and Range Province," NSF grant EAR 83-06397, $120,000, November 1, 1983 - October 31, 1986.

"Pyroclastic eruptions, Mount St. Helens," NSF grant EAR 84-17143, $10,000, May 18, 1980, January 1, 1985 - August 31, 1985.

"Cooperative study of Springerville-Show Low volcanic field, Arizona," U.S. Geological Survey Requisition 59980-5616, $4,995, November 1, 1984 to March 1, 1985.

"The transition from calc-alkaline to alkaline magmatism - its tectonic significance," Royal Society (Great Britain) Guest Research Fellowship, (about $4,480), March 1, 1986 - August 31, 1986.

"Geothermal systems of New Zealand," Foundation Visitor Award, $NZ 1,500, October 1, 1985 - February 28, 1986.

Proposals Submitted

"Pyroclastic eruptions, Mount St. Helens, NSF Proposal EAR 85-07028, $133,358, May 18, 1980, Sept. 1, 1985 - Aug. 31, 1988, under review.

"Characterization of conductive-convective zone," submitted to Los Alamos National Laboratory as part of a proposal on "Scientific Drilling in the Valles Caldera," (with J.A. Grambling) U.S. Department of Energy, $116,580, 3 years, under review.

"Pyroclastic-flow deposits of Mount St. Helens, eruption of May 18, 1980," UNM Research Allocations Committee, $1,612.50, July 1985.

Unsponsored Research

"Association of ore deposits and Cenozoic volcanic centers, southwestern New Mexico." Includes supervision of 1 M.S. candidate and 2 exchange students, Technische Hochschule Aachen (West Germany).

"Tungsten-bearing manganese oxide veins related to hot springs." Includes supervision of 1 Ph.D. candidate funded by Government of India.

"Geology and ore deposits of Cerrillos district, New Mexico." Includes supervision of 1 Ph.D. candidate funded by Government of Nigeria.

Geothermal systems.

Rodney C. Ewing

Sponsored Research

"The Dissolution Kinetis of Natural Glasses and the Prediction of Their Long-Term Stability: Application to the Evaluation of the Long-Term Stability of Borosilicate, Radioactive Waste Glasses" by the Nuclear Regulatory Commission with Argonne National Laboratory.

October 1, 1983 to June 30, 1984, $45,500.

"Radiation Effects and Annealing Kinetics in Crystalline Silicates, Phosphates and Complex Nb-Ta-Ti Oxides" by the Office of Basic Energy Sciences of the Department of Energy.

August 1, 1983 to July 31, 1984, $95,000.

"Natural Glass Analogues as Applied to Nuclear Waste Glasses" by the Nuclear Regulatory Commission with Argonne National Laboratory.

October 30, 1984 to September 30, 1985, $75,000.

"Radiation Effects an Annealing Kinetics in Crystalline Nb-Ta-Ti Oxides, Silicates and Phosphates" by the Office of Basic Energy Sciences of the Department of Energy.

August 1, 1984 to July 31, 1985, $71,500.

"Electron Microbeam Analysis Facility" sponsored by the Center for High Technology Materials at UNM.

July 1, 1984 to June 30, 1985, $70,000.

"Isotopic Fractionation Due to Alpha Recoil Damage in Crystalline Materials" submitted with Professor Yehuda Eyal of the Technion University in Haifa, Israel to the United States-Israel Binational Science Foundation. The funds go directly to Technion University.

October 1, 1984 to September 30, 1986, approximately $60,000.

Travel grant to attend the International Geological Congress in Moscow provided by AGI/NSF, $670.

Renewal of participatory agreement with Oak Ridge Associated Universities to support travel to Oak Ridge National Laboratory as part of the collaboration with L. Boatner of the Solid State Division.

Proposals Submitted

"STEM Characterization of Ceramic and Glass Materials" submitted to Sandia National Laboratories.

February 1, 1985 to September 30, 1985, $19,880.

"Radiation Effects in Crystalline Silicates, Phosphates and Nb-Ta-Ti Oxides" submitted to the Office of Basic Energy Sciences of the Department of Energy.

August 1, 1985 to July 30, 1986, $77,000.

Unsponsored Research

Continued research on the genesis and mineralogy of pegmatites, particularly the Harding Pegmatite.

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Graduate Students

Ph.D. candidates: M.J. Jercinovic

G.M. Lumpkin

M.S. candidates: R. Cowan

John W. Geissman

Sponsored Research

"Paleomagnetic Investigations of the Stillwater Complex and Associated Units, Stillwater County, Montana", two years, NSF EAR8116427, $56,015 (transferred from Colorado School of Mines).

"Paleomagnetic Evaluation of Mesozoic-Cenozoic Deformation in the Walker Lane Region, West-Central Basin and Range Province", two years, NSF EAR830661, $54,000 (transferred from Colorado School of Mines).

"Paleomagnetic Investigations of Basal Series Rocks, Stillwater Complex, Montana", Anaconda Minerals Company, $6,500 (transferred from Colorado School of Mines).

Proposals Submitted

"Collaborative Research on the Cenozoic Tectonic History of the Modoc-Warner Range Region, Northeastern California", two years, NSF EAR, $57,005, January, 1984.

"Acquisition of Magnetic Susceptibility/Anisotropy of Magnetic Susceptibility Measurement Instrumentation and Associated Hardware/Software", NSF EAR, $5427.99. Accepted for funding, December, 1984.

"Paleomagnetic and Structural Investigation of the Tectonic History of the Early Jurassic Humboldt Lopolith and associated Units, Fencemaker Allochthon, West-Central Nevada", two years, American Chemical Society PRF, $32,000, accepted for funding, November, 1984.

"Acquisition of Cryogenic Magnetometer System (Standard Access), and Related Equipment, Paleomagnetism Laboratory", NSF EAR Earth Science Instrumentation, $50,000 (matching funds from UNM).

"Microanalytical Techniques Applied to Paleomagnetic Research on Sedimentary Rocks: Acquisition of Partial Funding for a Small-Access Cryogenic Magnetometer", indefinite, Texaco, USA, $40,000, December, 1984.

Unsponsored Research

Paleomagnetic/Rock Magnetic Studies on:

Leadville Formation, Colorado;

Humboldt Lopolith and associated units, central Nevada;

Cenozoic volcanic rocks, northeastern California;

Cenozoic volcanic and sedimentary rocks, Lake Mead/Hoover Dam area;

Late Cretaceous/Cenozoic intrusive rocks, Colorado Front Range;

Miscellaneous Proterozoic plutons, southern Rocky Mountains; and Cambrian carbonate rocks, Pioche area, Nevada.

Jeffrey A. Grambling

Sponsored Research

"Geology and economic potential of possible stratabound precious and trace-metal mineralization, northern New Mexico": June 1,1983-May 30, 1984, Anaconda Minerals, Inc., $10,000.

"Fluid behavior during regional metamorphism": July 1, 1983 - June 30, 1984, UNM Research Allocations Committee, $799.

"Effects of minor elements on metamorphic phase relations": Nov. 1, 1983-Oct. 30, 1986, National Science Foundation, $98,521.

"Geology, economic potential and structural features associated with stratabound and discordant precious-metal mineralization, northern New Mexico": June 1, 1984-May 31, 1985, Anaconda Minerals, Inc., $5,600.

"Foliation development, porphyroblast nucleation and growth, and deformational history": July 1, 1984-Dec. 31, 1986, National Science Foundation, $65,440 (Co PI: T. Bell).

Unsponsored research

"A regional gradient in the composition of metamorphic fluid in pelitic schist, Pecos Baldy, New Mexico": manuscript in preparation for Contributions to Mineralogy and Petrology.

"Metamorphism, deformation and crustal thickening during Proterozoic orogenesis in New Mexico": manuscript submitted to Geology.

M.S. completed

Robert B. Trumbull, "Petrology of flecked gneisses in the northern Wet Mountains, Fremont County, Colorado," 1984.

Stephen P. Huestis

Proposal submitted

"The inverse problem of continental crustal heat production," National Science Foundation, 12 months, $46,347.

Unsponsored research

Three-dimensional gravity anomaly analysis, with M.E. Ander, Los Alamos National Laboratories.

Inverse problem of continental crustal heat production.

Statistics of earthquake location, with R.P. Buland, U.S. Geological Survey.

M.S. Completed

Maureen Mahoney - "Use of electrical resistivity techniques in an evaluation of the geothermal potential of the Truth or Consequences, New Mexico area."

John W. Husler

Chemical analysis/research for: New Mexico Energy Research Institute, LANL, Sandia Laboratories, EID, SMU, University of Arizona, and UNM departments of Chemistry, Physics, Chemical and Nuclear Engineering.

Klaus Keil

Sponsored Research

"Partial funding of electron microprobe X-ray analyzer": National Science Foundation. July 1, 1982-June 30, 1984. $180,000.

"Origin of stone meteorites and the Moon." National Aeronautics and Space Administration. Feb. 1, 1983-Feb. 15, 1984. $223,850.

"Geological support work of Nevada Nuclear Waste Storage Investigations." Sandia National Laboratories. Oct. 1, 1983-Sept. 30, 1984. $61,749.

"Halite mineralogy of the Solado Formation." Sandia National Laboratories. July 29, 1983-Sept. 30, 1984. $25,134.

"Origin and evolution of meteorite parent bodies and the Moon." National Aeronautics and Space Administration. Feb. 1, 1984-Jan. 31, 1985. $235,000.

"Partial funding of transmission electron microscope." National Aeronautics and Space Administration. Jan. 1-Dec. 31, 1984. $100,000.

"Halite mineralogy of the Solado Formation." Sandia National Laboratories. Oct. 1, 1984-Sept. 30, 1985. $48,551.

"Geological support work of Nevada Nuclear Waste Storage Investigations." Oct. 1, 1984-Sept. 30, 1985. $78,939.

Proposals submitted during period and funded

"Physical and chemcial conditions of the lower crust as deduced from xenoliths in lavas of the Leucite Hills, Wyoming." National Science Foundation, via the University of Northern Iowa. Jan. 1-Dec. 31, 1985. $7,429.

"Origin and evolution of meteorite parent bodies and the Moon." National Aeronautics and Space Administration. Feb. 1, 1985-Jan. 31, 1986. $246,500.

M.S. theses completed

Tammy L. Dickinson: Petrogenesis of Apollo 14 aluminous mare basalts.

Susan J. McKinley: Petrology and classification of 145 small meteorites from the 1977 Allan Hills collection.

Post-doctoral fellows supported by my grants:

Dr. A. Kracher (Ph.D., University of Vienna, Austria).

Dr. Cyrena A. Goodrich (Ph.D., Cornell University, Ithaca, N.Y.).

Graduate students supported as Research Assistants by my grants:

M.G. Bersch; Tammy L. Dickinson; B. Epling; W. Farrand; M.J. Jercinovic; D. Lusby; J.P. McKinley; S.G. McKinley; S.I. Recca; G. Sarkar; D. Szuwalski; Cecelia V. Williams.

Undergraduate students supported by my grants:

Amy Dixon; Mathew Gabriel.

Cornelis Klein

Sponsored Research

NSF Grant No. EAR-8419161 - Nov. 1, 1984, to April 30, 1986 - entitled "Comparative Studies of Several Precambrian iron-formations and some manganese deposits," award $29,200 (carried over from Indiana University).

NSF Grant No. EAR-8415681 - to begin April 1, 1985, until March 31, 1987, entitled "Geochemistry and sedimentology of some essentially unmetamorphosed Precambrian iron-formation sequences," award $153,603.

NASA Grant NAGW-252 (administered at the University of Michigan, Ann Arbor), co-investigator with J.G.C. Walker, J.M. Hayes, J.W. Schopf and M.R. Walter, entitled "Interdisciplinary Study of Precambrian Paleobiology," award $59,980.

National Geographic Society Research Grant, entitled "The earliest history of life," co-investigator with 14 other scientists, awarded for 1985 and 1986 field research by the group of 15 (administered at UCLA), award $69,200.

Advisor (with John M. Hayes at Indiana University) on M.S. thesis project by Jay Kaufman, entitled "Covariance of $\delta^{13}C$ and $\delta^{18}O$ in banded iron-formations and its genetic implications."

Unsponsored Research

Outside reader on Ph.D. thesis by R.C. Morris, University of Western Australia, Perth, Australia, entitled "Genesis of iron ore in banded iron-formation by supergene-metamorphic processes - a conceptual model."

Albert M. Kudo

"Origin of volcanic rocks composing Orizaba, Popocatepetl, and Iztaccihuatl, Mexico" from UNM Research Allocations Committee, $1200.00

"Petrogenesis of Quaternary andesites, Costa Rica: 1. Mapping, petrology, mineral chemistry, major- and trace-element geochemistry", proposal submitted to NSF, January, 1985. $129,438.00

Continued research on andesites from northeastern Japan.

Barry S. Kues

Sponsored Reseach

"Renovation of Geology Department Museum," June, 1984-June, 1985, U.N.M. Foundation, $11,500

Unsponsored Research

"New occurrence of the rare Pennsylvanian brachiopod Cryptacanthia compacta in the Madera Group of central New Mexico," in review, New Mexico Journal of Science

"Upper Cretaceous-Paleocene sequence, Bisti--De-na-zin Wash area, northwestern New Mexico," in review, Geological Society of America, Decade of North American Geology Centennial Field Guide for Rocky Mountain Section.

Coauthor: S.G. Lucas

Studies of Pennsylvanian molluscs in the Sangre de Cristo and Manzano Mountains.

Studies of Triassic invertebrates in east-central New Mexico.

Studies of Lower Cretaceous invertebrates in east-central New Mexico.

Studies of pre-1900 gelogical and paleontological research in New Mexcio.

Spencer G. Lucas

Supervision of renovation of Geology Museum. Funded by UNM Foundation at $11,500

Field research on Paleocene of San Juan Basin. Funded by NSF Grant to Robert M. Sullivan, Los Angeles County Museum of Natural History at $70,000

Unsponsored Research

Mesozoic stratigraphy of east-central New Mexico.

Writing book, "The Age of Mammals in New Mexico," under contract with UNM Press.

Organizing the 36th Field Conference of the New Mexico Geological Society.

Editor of the book, "Studies of Chinese Fossil Vertebrates." Now in press in Sweden, to be published in 1985.

Ian D. R. Mackinnon

Sponsored Research

"Analytical Electron Microscopy of Fine-grained Extraterrestrial Materials", 1982-1984, NASA Geosciences Program, $225,000.00.

Co-investigator with D. S. McKay

Leslie D. McFadden

Sponsored Research

"Analysis of Soils from Chronosequences in the Western United States", Sept. 30, 1984-Sept. 30, 1985, U.S. Geological Survey ,$28,500.

"Soils - geomorphological Studies of Quaternary Surficial Deposits in the Mojave Desert, California", Jan 1, 1984 - Sept. 30, 1984, U.S. Geological Survey, $6,000.

"Investigations of the Late Quaternary Glacial Geology and Soils of the Upper Pecos River Basin, New Mexico", April 30, 1984 - Sept. 30, 1984, National Park Services, $1,000, (coinvestigator).

"Climatic Geomorphological and Soil Stratigraphic Studies of the San Agustin Plains, New Mexico", Feb. 2, 1984 - June 15, 1984, UNM Research Allocations Committee, $4,300.

Proposals Submitted

"Absolute Ages of Deposits of the Pinedale Glaciation in the Wind River Range, Wyoming, and the Sangre de Cristo Range, New Mexico", National Science Foundation, $117,999, (subcontractor).

"Soil Geomorphological Studies in the San Agustin Basins, New Mexico", National Science Foundation, $55,300.

Unsponsored Research

Studies of soil-geomorphic relations in the Cajon Creek Area of the Transverse Ranges, New Mexico.

Analysis of particle-size of Cretaceous - Tertiary Boundary Sediments.

Stephen G. Wells

Sponsored Research

"Tectonic Geomorphology of the Western Coast of Costa Rica: A Comparison of Different Plate Tectonic Settings", January, 1984 - January, 1985, Mellon Inter-American Field Research Grant & Latin American Institute, $1500.

Completed:

"Geomorphic Criteria for Selecting Stable Uranium Tailings Disposal Sites In New Mexico", NM Energy Research and Develoment Institute, 1981-1984, $82,000.

Unsponsored Research

M.S. Completed:

Devon E. Jercinovic, "Geomorphic Analysis of Small Watersheds Affected by Coal-Surface Mining in Northwestern New Mexico".

Steven W. Sares, "Hydrologic and Geomorphic Development of a Low-relief Evaporite Karst Drainage Basin, Southeastern New Mexico".

Lee A. Woodward

Sponsored Research

"Stratigraphy of the Hagan Basin, New Mexico," 1984-1985, New Mexico Bureau of Mines and Mineral Resources, $2,000.00.

"Tectonic map of the Rocky Mountains region of the United States," 1984-85, Research Allocations Committee, UNM, $1,051.00

"Geology of French Mesa, 7.5 minute quadrangle", New Mexico Bureau of Mines and Mineral Resources, May 15-Dec. 31, 1985, $2,000.00

Unsponsored Research

"Tectonic origin of the fractures for fissure vein emplacement in the Boulder Batholith, Montana"

"Ore deposits along Tijeras fault system, New Mexico"

Robyn Wright

Sponsored Research

"Vertical Progressions in Settling Velocity (SETVEL) Data as an Indicator of Depositional Process and Environment: Mesaverde Group Strata, Piceance Basin, Northwestern Colorado", 1 year; possibility of renewal, Sandia-University Research Program (SURP) $30,000.00.

Proposal Submitted

Proposal to Produce Preliminary Script for "Story of the San Juan Basin" Exhibit: New Mexico Museum of Natural History, June 1 - August 20, 1984, New Mexico Museum Natural History, $5510.00.

Co-investigator: R. Glenn

Unsponsored Research

Assessment of Cyclic Sedimentation - Pt. Lookout Fm., southeastern San Juan Basin.

Development of automated sedimentation analysis laboratory.

Crayton J. Yapp

Sponsored research

"Study of nonstoichiometric water in Fe(III)-oxides," Sept., 1983 - June, 1984, University of New Mexico Research Allocations Committee, $1,360.00

"Stable isotope and chemical study of the mineral system goethite-hematite with applications to iron-rich sedimentary rocks," Feb. 1, 1984 - July 31, 1986, National Science Foundation, $66,200.00

"Acquisition of a gas source, light element isotope ratio mass spectrometer," March 1, 1984 - Aug. 31, 1985, National Science Foundation, $70,000.00

6. ACTIVITIES IN LEARNED AND PROFESSIONAL SOCIETIES

Roger Y. Anderson

COHMAP, Meeting, 9-21 July, Univ. Wis., Madison: Talk on "Climatic variability at Elk Lake, Minnesota".

AMQUA Meeting, 13-15 Aug, Boulder, CO: Presented poster session.

GSA Annual Meeting, Reno, Nevada, 5-8 Nov.: Presented 3 poster sessions.

Douglas G. Brookins

Professional papers read: (including those delivered by co-author*)

South-Central Geological Society of America, Mar. 27, 1984, Dallas, Texas; invited paper "Rb-Sr dating of sedimentary rocks from the San Juan Basin, New Mexico"

South-Central Geological Society of America, Mar. 27, 1984, Dallas, Texas; invited paper "Geochronologic study of evaporite minerals, Delaware Basin, New Mexico"

Rocky Mountain Geological Society of America, May 3-5, 1984, Durango, CO; "Geochemistry, diagenesis and contaminant transport of uranium mill tailings"

Coauthors: P. A. Longmire*, B. M. Thomson

Rocky Mountain Geological Society of America, May 3-5, 1984, Durango, CO; "Geochronology and geochemistry of Proterozoic metamorphic rocks, Nederland quadrangle, CO"

Coauthor: M. S. Abashian*

Rocky Mountain Geological Society of America, May 3-5, 1984, Durango, CO; "Provenance and sediment dispersal, Westwater Canyon Sandstone, western San Juan Basin, New Mexico"

Coauthor: R. M. Lowy*

Rocky Mountain Geological Society of America, May 3-5, 1984, Durango, CO; "Geochronologic study of the Sandia Mountains, New Mexico"

Annual Spring Meeting, New Mexico Geological Society, Socorro, NM, April 27, 1984; "Rb-Sr geochronologic study of Precambrian rocks of the Front Range, near Eldora, CO"

CoAuthor: M. S. Abashian*

Annual eastern meeting of the American Geophysical Union, Cincinnati, Ohio, April 29, 1984; "Geochronology and geochemistry of the Sandia granite, north-central New Mexico"

Coauthors: A. Majumdar*, A. F. Wilson, A. J. Baksi

Annual meeting of the Clay Minerals Society, Baton Rouge, Louisiana, OCt. 1-4, 1984; "Geochronometry of sedimentogenetic and diagenetic reactions for glauconitic minerals"

Coauthor: G. S. Odin*

Annual Meeting of the Clay Minerals Society, Baton Rouge, Louisiana, Oct. 1-4, 1984; "Geochronometry of clay minerals"

Coauthor: G. S. Odin*

Symposium on hazardous materials in waters in New Mexico, held in Socorro, NM March 23, 1984 (sponsored by NMIMT, NMWRRI), "Uranium industry impacts on groundwater in New Mexico: theory and applications"

Coauthors: P. A. Longmire*, B. M. Thomson

Annual Meeting Geological Society of America, Reno, NV, Nov. 5-8, 1984, "Dynamic" or non-ideal assimilation within the Platoro complex: strontium isotope and trace element results"

Coauthor: M. T. Murphy*

Annual meeting, Geological Society of America, Reno, NV, Nov. 5-8, 1984; "A preliminary investigation of host rock alteration associated with lead-zinc mineralization in the Metaline District, Washington"

Coauthors: S. V. Panno*, E. V. Sayre, G. Harbottle

Annual western meeting of the American Geophysical Union, San Francisco, CA, Dec. 2-5, 1984, "Probable fictitious Rb-Sr isochrons from the Florida Mountains, New Mexico"

Coauthor: R. K. Matheney*

National Academy of Science-National Research Council Panel on Uranium Mill Tailings, Washington, D. C., Sept. 17, 1984; "Origin and geochemistry of Grants Mineral Belt, NM uranium deposits"

Annual meeting, Materials Research Society, Boston, MA, Nov. 26-29, 1984; "Rubidium-strontium geochronologic systematics in igneous contact zones: analog for 90-Sr and 137-Cs behavior in the near-field"

International workshop on natural analogs for radwaste studies, sponsored by KBS (Sweden) and USDOE, Lake Geneva, WI, Oct. 1-3, 1984; "Natural analogs for radwaste disposal: elemental migration in igneous contact zones"

Offices Held

Materials Research Society: publications committee (1982-1984), membership committee, (1983-present), steering committee (1984), radwaste symposium planning committee chairman (1984-1985), candidate for position of Treasurer of MRS (1984).

Field trips

Leader for field trips to Ortiz Gold Mine, Cerrillos, NM; April 17, 1984; July 27, 1984, Nov. 15, 1984. Groups consisted of students in Geology 103 (Earth Resources and Man) and geology undergraduates and graduates.

Leader for part of uranium mill tailings field trip, May 21, 1984; Grants area, New Mexico; for NAS-NRC.

Bryan C. Chakoumakos

Professional Papers Read and Poster Presentations

"Quantum Mineralogy" UNM Geology Department seminar, August 30 (oral).

"Molecular Modeling of silanol-water interactions: Geological Society of America and Mineralogical Society of America Annual meeting, Reno, Nevada, November 5-8 (oral).

Coauthor: G.V. Gibbs

"Crystal chemical constraints on the formation of actinide pyrochlores" Materials Research Society Annual Meeting, Boston, Massachusetts, November 25-28 (poster).

Coauthor: R.C. Ewing

"Investigation of metamict and annealed pyrochlores by X-ray absorption spectroscopy" Materials Research Society, Boston, Massachusetts, November 25-28 (poster).

Coauthors: R.B. Greegor, F.W. Lytle, G.R. Lumpkin, and R.C. Ewing

Meetings Attended

February 27-29, Albuquerque, New Mexico: Attended the annual Spring meeting of the Materials Research Society.

March 1-3, Santa Fe, New Mexico: Attended the Collaborative Working Group on Radiation Effects in Crystalline Nuclear Waste Forms.

June 28-29, Albuquerque, New Mexico: Attended the DOE, Office of Basic Energy Science annual review of the materials science program at Sandia National Laboratories.

July 15-20, Palo Alto, California: Attended the 3rd International EXAFS Conference at Stanford University.

October 22-24, Santa Clara, California: Attended annual User's Group Meeting for owners of the SCINTAG automated X-ray diffractometer.

November 3-4, Reno, Nevada: Attended the Mineralogical Society of America short course on the Micas.

November 5-8, Reno, Nevada: Attended the annual meeting of the Geological Society of America and the Mineralogical Society of America.

November 25-28, Boston, Massachusetts: Attended the annual meeting of the Materials Research Society.

Wolfgang E. Elston

Professional Papers Read

"Ore Deposits Hosted by Cenozoic Volcanic Rocks, Southwestern New Mexico." Invited paper for Annual Meeting, Rocky Mountain Section, Geological Society of America, Durango, CO, May 11-12.

"Transition from Laramide Orogeny to Mid-Cenozoic Extension 48 to 35 Ma, Southwestern North America." Annual Meeting, Cordilleran Section, Geological Society of America, Anchorage, AK, May 30-June 1.

Speaker on field trip to pyroclastic deposits, Workshop on Volcanic Blasts, International Association for Volcanology and Chemistry of the Earth's Interior, Mount St. Helens, WA, Aug. 13 - 18.

"Contact Metamorphism and Deformation of Carbonate Rocks Between Pluton and Caldera Floor: The Oligocene Emory Cauldron, Black Range, Grant and Sierra Counties, New Mexico," Los Alamos National Laboratory Workshop on Recent Research in Valles Caldera, Los Alamos, NM, Oct. 15-19.

Co-authors: Peter Maggiore, J.A. Grambling.

Meetings Attended

April 27, Socorro, NM: Annual Spring Meeting, New Mexico Geological Society.

July 30 - Aug. 1, UNM, Annual Meeting, Meteoritical Society.

Nov. 2 - 9, Reno, NV: Annual Meeting, Geological Society of America.

Offices Held

Secretary, Working Group on Explosive Volcanism, International Association for Volcanology and Chemistry of the Earth's Interior, 1983-present.

Member, Working Group on Volcanic Data Files, International Association for Volcanology and the Earth's Interior.

Member, Board of Directors, New Mexico Mining Association.

Member, NASA-U.S. Geological Survey Galilean Satellites Mapping Team.

Rodney C. Ewing

Professional Papers Read and Poster Presentations

"Basalt Glass: A Natural Analogue for the Evaluation of the Long-Term Stability of Nuclear Waste Glasses" at the Second International Workshop on Systems Variables in Nuclear Waste Storage, March 18-22, Gainesville, Florida (oral).

"TEM, EXAFS and XANES Examination of Metamict, Orthorhombic, Nb-Ta-Ti Oxides" at the 27th International Geological Congress, August 4-14, Moscow, USSR (oral).

"Crystal Chemical Constraints on the Formation of Actinide Pyrochlores" at the Annual Meeting of the Materials Research Society, November 25-30, Boston, Massachusetts (poster).

"Investigation of Annealed and Metamict Pyrochlore Minerals by X-Ray Absorption Spectroscopy" at the Annual Meeting of the Materials Research Society, November 25-30, Boston, Massachusetts (poster).

"Natural Pyrochlores, Analogues for Actinide Host Phases in Radioactive Waste Forms" at the Annual Meeting of the Materials Research Society, November 25-30, Boston, Massachusetts (poster).

"Basalt Glass: An Analogue for the Evaluation of the Long-Term Stability of Nuclear Waste Form Borosilicate Glasses" at the Annual Meeting of the Materials Research Society, November 25-30, Boston, Massachusetts (poster).

Offices Held in Professional Societies

Materials Research Society:

Councilor, 1983-1985

Secretary and member of Executive Committee, 1984-1986

Chairman of the Education Committee, 1984

Chairman of the Membership Committee, 1985

Member of committee for the selection of the Von Hipple Award recipient

Co-Chairman of the Eighth International Symposium on the Scientific Basis for Nuclear Waste Management in Boston

Member of the program committee for the Ninth International Symposium on the Scientific Basis for Nuclear Waste Management in Stockholm

Mineralogical Society of America:

Elected a Fellow

Stood for election to the Council

International Mineralogical Association:

Member of the program committee for the International Mineralogical Association meeting at Stanford, California in 1986

Member of the field trip committee (for northern New Mexcio) for the International Mineralogical Association meeting at Stanford, California in 1986

Member of Geo-Literary Society

John W. Geissman

Professional Papers Read

Geological Society of America Annual Meeting, Reno, Nevada:

"Applications of paleomagnetism to structural geology and tectonism in the Basin and Range province: examples, limitations, and cautionary remarks", (Geissman, Hudson, Callian, Hazlett, and Karachewski).

"The Stillwater Complex is allochthonous", (Mogk and Geissman).

"Paleomagnetism of Oligocene/Miocene volcanic rocks in the Walker Lake area, west-central Nevada: evidence for variable amounts of shear-related rotation within the Walker Lane", (Callian and Geissman).

"Paleomagnetic data bearing on Laramide and younger deformation of the northern Mosquito Range, central Colorado", (Oppenheimer and Geissman).

"Paleomagnetism of the Leadville Formation (Mississippian) Central Colorado: Data bearing on the age of regional dolomitization", (Horton and Geissman).

American Geophysical Union Annual Meeting, San Francisco, California:

"Further paleomagnetic data from Mesozoic plutons and layered rocks and their bearing on deformation in the Walker Lane area, west-central Nevada", (Callian and Geissman).

"Paleomagnetic constraints on the age of serpentinization of plagioclase-olivine cumulate rocks, Banded Series, Stillwater Complex, Montana", (Saxton and Geissman).

Geological Society of America Rocky Mountain Section, Durango, Colorado:

"Time-stratigraphic equivalence of the Dubois greenstone and felsic volcanic-sedimentary gneiss terrane, Gunnison Uplift, Gunnison and Sagauche Counties, Colorado", (Shonk and Geissman).

Jeffrey A. Grambling

Professional papers read

"Deformation, metamorphism and mineralization in Precambrian metamorphic rocks from northern New Mexico": Los Alamos National Laboratory, Los Alamos, March 7. (Invited talk)

"Proterozoic isobaric surfaces and tectonism in northern and central New Mexico": Rocky Mountain Section, Geological Society of America, Durango, Colorado, May 12.

"Precambrian stratigraphy, deformation and metamorphism in north-central New Mexico": New Mexico Geological Society, Taos, October 11-12.

"Regional metamorphism in central and northern New Mexico, and implications for Proterozoic tectonics": Annual Meeting, Geological Society of America, Reno, Nevada, Nov. 5.

"Proterozoic stratigraphy, deformation and metamorphism in New Mexico": Department of Geological Sciences, University of Southern California, Los Angeles, California, Nov. 28. (Invited talk)

Offices Held

Vice-President, New Mexico Geological Society, January 1-April 20, 1984.

President, New Mexico Geological Society, April 20-December 31, 1984.

Chairman, Ogden Tweto Memorial Symposium, "Precambrian geology of the southern Rocky Mountains," Geological Society of America, Rocky Mountain Section, May 11-12.

Presided, New Mexico Geological Society, Spring Meeting, April 27, Socorro; and Fall Field Conference, October 10-13, Taos.

Stephen P. Huestis

Professional Paper Read

"Constraints imposed on crustal heat production by the linear heat flow relation," presented at the 14th International Conference on Mathematical Geophysics, Loen, Norway, June 24-30, 1984.

Klaus Keil

Offices Held

Chairman, Organizing Committee, 47th Meteoritical Society Meeting, University of New Mexico, Albuquerque, New Mexico.

Member, Program Committee, 47th Meteoritical Society Meeting, University of New Mexico, Albuquerque, New Mexico.

Member, Advisory Committee on Comparative Planetology, International Union of Geological Sciences.

Associate Editor, Journal of Geophysical Research, American Geophysical Union.

Meetings attended

Lunar and Planetary Science Conference, Houston, Texas. Chaired one session, coauthored five talks, and chaired Lunar Science Council Meeting. March 11-18, 1984.

European Planetary Science Symposium, Heidelberg, West-Germany. Presented invited paper. April 23-29, 1984.

Meteoritical Society Meeting, Albuquerque, New Mexico. Served as Chairman of Organizing Committee and Member of Program

Committee, presented one talk and coauthored five talks. July 30-August 2, 1984.

H.E. Suess Symposium, University of California, LaJolla, California. Presented one invited talk. Dec. 12-15, 1984.

PacChem Conference, 1984, Honolulu, Hawaii. Presented one invited talk. Dec. 16-21, 1984.

Cornelis Klein

Paper read

Presented paper entitled "Metamorphosed banded iron-formations from the 3800 Ma, Isua supracrustal sequence, Southern West Greenland" on August 8, 1984, in Moscow, USSR, as part of the International Geological Congress.

Offices held

Associate editor of Precambrian Research, a journal of Elsevier Science Publishers, Amsterdam, The Netherlands.

Council member of the Mineralogical Society of America, and attended two council meetings of the Society in Reno, Nevada, November 4 and November 6, 1984, respectively.

Appointed to chair the MSA Award Committee, for the Mineralogical Society of America for 1985.

Appointed representative of the Mineralogical Society of America to the International Mineralogical Commission on History and Teaching.

Member, New Mexico Museum of Natural History, Advisory Committee on Geology.

Member, Board of Directors (1985-88), New Mexico Mining Association.

Barry S. Kues

Professional Papers Read

"Bivalves from the Red Tanks Member, Madera Formation (Upper Pennsylvanian-Lower Permian) of central New Mexico", New Mexico Geological Society Annual Spring Meeting, Socorro, April 27.

"A new Late Triassic invertebrate and vertebrate fauna from the Chinle Formation, eastern New Mexico," Geological Society of America Rocky Mountain Section Annual Meeting, Durango, Colorado, May 10.

Offices Held

Named to Editorial Board, New Mexico Journal of Science

Road-log Chairman for 36th Annual New Mexico Geological Society Field Conference, 1985

Spencer G. Lucas

Professional Papers Read

"Biostratigraphic significance of Coryphodon species from the Regina member (lower Eocene), San Jose Formation, San Juan Basin, New Mexico." N.M. Geological Society Spring Meeting, Socorro, April 27.

"Upper Triassic-Upper Jurassic stratigraphy, fossil vertebrates and depositional environments, Bull Canyon, Guadalupe County, east-central New Mexico." Rocky Mountain Section,

Geological Society of America, Annual Meeting, Durango, Colorado, May 10-12.

"Puercan (early Paleocene) biostratigraphy, Nacimiento Formation, San Juan Basin, New Mexico." Rocky Mountain Section, Geological Society of America, Annual Meeting, Durango, Colorado, May 10-12.

"Middle Eocene rodent from Baca Formation, south-central New Mexico." N.M. Academy Science Annual Meeting, Clovis, N.M., September 28.

"Occurrence of Late Triassic Vertebrates, Chinle Formation, Bull Canyon, east-central New Mexico." N.M. Academy Science Annual Meeting, Clovis, N.M., September 28.

"Middle (?) Jurassic dinosaurs from the Sichuan Basin, China." Society of Vertebrate Paleontology, Annual Meeting, Berkeley, California, October 31-November 3.

Offices Held

Co-chairman: N.M. Paleontological Society

Chairman: N.M. Geol. Soc. 36th Annual Field Conference

Member: N.M. Museum of Natural History. Advisory Committee on Paleontology

Ian D. R. Mackinnon

Meetings Attended

January 3-6: "Protostars and Planets II Conference", Tucson, Arizona.

March 1-4: Workshop on crystalline wasteforms, Santa Fe, New Mexico.

March 12-16: 15th Lunar and Planetary Science Conference, Houston, Texas.

September 29: Workshop on Clays and Log Analysis, Baton Rouge, Louisiana.

October 1-4: 33rd Annual Meeting of the Clay Minerals Society, Baton Rouge, Louisiana.

Leslie D. McFadden

Professional Papers Read

"Weathering Studies in the Transverse Ranges, California and San Juan Basin, New Mexico", for the San Diego State University Geology Colloquium, San Diego, California, February 22, 1984.

"The Recognition of a New Threshold of Soil Formation in Soils at Cajon Creek, Southern California", for the Geological Society of America National Meetings, Reno, Nevada, November 4-9.

Meetings Attended

Geological Society of America Meetings of the Rocky Mountain Section, Durango, Colorado, May 10-12. (Session Co-chairperson).

New Mexico Geological Society 1984 Field Conference, Taos, New Mexico, October 10-13.

Geological Society of America National Meetings, Reno, Nevada, Nov. 4-9.

Field Trip Leader

Co-leader of field trip entitled "Surficial Geology of the Eastern Mojave Desert, California," for the 97th Annual Meeting of the Geological Society of America in Reno, Nevada, Nov. 1-4.

Stephen G. Wells

Professional Papers Read

"Long-term Watershed Evolution in Southeastern Colorado Plateau", Portsmouth Polytech, Portsmouth, England, May 14.

"Late Cenozoic Landscapes Developed on Basaltic Lava Flows in the Mojave Desert, California", The University of Liverpool, Liverpool, England, June 14.

"Long-term Watershed Evolution in Southeastern Colorado Plateau", The University of Manchester, Manchester, England, June 22.

"Long-term Watershed Evolution in Southeastern Colorado Plateau", Bedford College, London and Polytechnic of North London, England, June 28.

"Long-term geomorphic processes and landscape stability applied to uranium mill tailings disposal", The 4th meeting of the Uranium Mill Tailings Study Panel, National Academy of Sciences, Washington, D. C., September 20.

"Sheetflood Bedforms on Late Quaternary Alluvial Fan Surfaces in the Southwestern United States", 97th Annual meeting of the Geological Society of America, Reno, Nevada, November 7.

Field Trip Leader

Co-leader of field trip entitled "Surficial Geology of the Eastern Mojave Desert, California" for the 97th Annual meeting of the Geological Society of America in Reno, Nevada, November 1-4.

Offices Held

Panel Member of the Quaternary Geology and Geomorphology Division of the Geological Society of America.

Editorial Board member for Geological Society of America's journal, Geology.

Lee A. Woodward

Offices Held

Elected as Member of House of Delegates of American Association of Petroleum Geologists for the period July 1, 1984, to June 30, 1987.

Meetings Attended

Montana Geological Society field conference, September 11-15, in Kalispell, Montana.

Robyn Wright

Professional Papers Read

"Cyclic Sedimentation within Upper Cretaceous Pt. Lookout Fm., model for Strandline Progradation and Sandstone Distribution". American Association of Petroleum Geologists/Society of Economic Paleontologists and Mineralogists national meeting, San Antonio, Texas, May 22.

Papers Co-authored

"Grain Size Vertical Progressions as an Exploration Tool". American Association Petroleum Geologists/Society of Economic Paleontologists and Mineralogists national meeting, San Antonio, Texas, May 23.

With: J.B. Anderson and E. Watkins

"Development of Glacial Topography on the Antarctic Continental Shelf and cessation of deep-sea fan development around the margin". Society Economic Paleontologists/Mineralogists Annual Midyear Meeting, San Jose, California, August 12.

With: J.B. Anderson and B. Andrews.

7. OTHER PROFESSIONAL ACTIVITIES

Roger Y. Anderson

Local TV news interview: Impact of CO_2 on climate of Southwest.

Public Lecture: Recursos de Santa Fe, 30 Oct., "End of Eden - the Coming Climatic Changes".

Review of 10 research proposals for NSF.

Douglas G. Brookins

Co-editor for the international journal, Uranium (since 1982), Elsevier Sci. Publ. Co., Amsterdam.

Reviewed proposals for: American Chemical Society-Petroleum Research Fund, National Science Foundation, Research Corporation

Reviewed scholarly papers for: Geology, Science, Uranium, Materials Research Society (Scientific Basis for Nuclear Waste Management VIII), Amer. Assoc. Petrol. Geol. Bull., Geol. Surv. Saskatchewan Jour., Geochim. Cosmochim. Acta, Alberta Research Cncl. Spec. ppr., Canadian Geol. Survey Monograph on Ore Deposits, Geol. Soc. Amer. Bull.

Talks to Civic Groups and other off-campus groups:

Mid-town Optimists Club, Mar. 13, "Radioactive wastes: a geologist's view"

Westside Optimists Club, April 15, "Radioactive wastes: a geologist's view"

Rio Rancho Civitan Club, Dec. 17, "Assessment of the WIPP

Site for storage of radioactive wastes"

Interviewed by KOAT-TV and KOB-TV on danger of radon gas in dwellings in Albuquerque area, covered on 6 pm and 10 pm news Sept. 13.

Host for Drs. Franco Lanza and Alessandro Avogadro, ISPRA Establishment of Commission of the European Communities, Nov. 15, 1984, for discussion of natural analogs for radwaste studies.

Consultant to Argonne National Laboratories for assessment of salt as a medium for the disposal of radioactive wastes, for review of Office of Nuclear Waste Isolation's planning documents for siting criteria, geochemistry, and organic geochemistry.

Consultant to Oak Ridge National Laboratory for assessment and evaluation of geochemistry sections of the U. S. Sedimentary Rock Program of DOE.

Consultant to the NM Environmental Evaluation Group, for discussion of geochemistry of WIPP site area.

Bryan C. Chakoumakos

Reviewed manuscripts for the following:

Canadian Mineralogist and the U.S. Geological Survey.

Volunteer Abstractor for Mineralogical Abstracts.

Guest lecturer or substitute lecturer three times for Geol. 301.

Consulting for Intel Corporation (David McMillen, Thin Films).

Wolfgang E. Elston

Gave advice on geology, mineral, petroleum, and geothermal resources of New Mexico to 31 individuals, corporations, government agencies; cooperated with NASA and Lockheed Corp. in study for correlation of geologic mapping (with E.G. Deal) with remote-sensing surveys of Pyramid Mountains.

Negotiated with Gesellschaft fur Technische Zusammenarbeit (Organization for Technical Cooperation, Federal Republic of Germany) for participation in Mineral Evaluation Study, Kingdom of Saudi Arabia.

Gave talk on "Exploration of the Solar System" to UNM Student Chapter, American Institute of Aeronautics and Astronautics, Sept. 20.

Reviewed research proposals and manuscripts for the following: National Science Foundation; Department of Energy; Bulletin, Geological Society of America; Journal of Geophysical Research; Prentice-Hall, Inc.

Rodney C. Ewing

Reviewed manuscripts and proposals for the following: The American Mineralogist, The Materials Research Society, Materials Letters, The Canadian Mineralogist, and National Science Foundation.

Served as a member of the National Academy of Science/NRC Panel (chaired by K.B. Krauskopf) for the review of the Waste Isolation Pilot Plant at Carlsbad, New Mexico.

Consultant for Los Alamos National Laboratory.

John W. Geissman

Guest Lectures

March 6, Anaconda Minerals Company, Denver, "Paleomagnetic and rock magnetic properties of Archean greenstone belts and relations to aeromagnetic exploration."

April 5, Colorado School of Mines, Engineer Day Debate, Science vs. Creationism (with Dr.James Gish).

September 20, University of New Mexico, "Paleomagnetism of Archean greenstone belts, an example from the Abitibi subprovince, central Ontario".

October 18-19, University of Utah, "Paleomagnetism of the late Archean Stillwater Complex, Montana".

"Paleomagnetism as a tool in solving local-scale structural problems in extending orogens, the Basin and Range province".

November 9-11, Geological Scoiety of America Short Course, Reno, (with Rob Van der Voo, the University of Michigan), "Paleomagnetism as a tool in solving problems in structural geology and tectonics".

December 11, MolyCorp, Questa, "Paleomagnetism and applications in solving local-scale structural and mineralization problems".

Jeffrey A. Grambling

Reviewed manuscripts for: Contributions to Mineralogy and Petrology; American Mineralogist; New Mexico Geology; and New Mexico Bureau of Mines.

Reviewed proposals for: National Science Foundation (Petrology, Structure, Sedimentology); American Chemical Society.

Reviewed texts: W.H. Freeman and Company; Oxford University Press.

Consulting: Anaconda Minerals, Inc.

Co-organizer: Field trips for 1985 International Basement Tectonics Symposium

Stephen P. Huestis

Off-campus talk

"Constraints imposed on crustal heat production by the linear heat flow relation," U.S. Geological Survey, Golden, Colorado. September 24, 1984.

Reviews

Reviewed NSF proposal, and papers for Journal of Geophysical Research, and the Geophysical Journal of the Royal Astronomical Society

John W. Husler

Consulting for Santa Fe Mining, NICOR, and private individuals.

Klaus Keil

Member, Advisory Committee on Comparative Planetology, International Union of Geological Sciences, 1982-1985.

Associate Editor, Journal of Geophysical Research, American Geophysical Union, 1982-1985.

Associate Editor for Chondrules and their Origin, a volume published by the Lunar and Planetary Institute, Houston, Texas.

Associate Editor, journal Chemie der Erde.

Consultant, Sandia National Laboratories, Albuquerque, New Mexico.

Reviewed several proposals submitted to NASA for funding.

Reviewed fourteen scientific papers submitted for publication in Geochimica et Cosmochimica Acta, Meteoritics, Science, Nature, Chemical Geology, 8th Symposium on Antarctic Meteorites (Japan), Chemie der Erde, and Materials Research Society Symposium.

Member, Editorial Board, Chemical Geology.

Chairman, Lunar and Planetary Science Council, Universities Space Research Association, Houston, Texas.

Member, Antarctic Meteorite Working Group, National Science Foundation - National Aeronautics and Space Administration.

Member, Editorial Board, Tschermak's Mineralogische - Petrographische Mitteilungen, Vienna, Austria.

Member, NASA Solar System Exploration Committee, Subcommittee on Manned Space Exploration.

Member, NASA Advisory Committee on Minority Graduate Researchers.

Interview with Albuquerque Journal (Nancy Harbert) on Meteoritical Society Meeting, July 17, 1984.

Interview with UNM Lobo on research in Institute of Meteoritics, July 23, 1984.

Interview with Albuquerque Journal (Byron Spice) on Meteoritical Society Meeting, July 25, 1984.

Acting Associate Editor, Geochimica et Cosmochimica Acta (1984).

Member Advisory Committee for the Institute of Geophysics and Planetary Physics, University of California, Los Alamos National Laboratory, Los Alamos, New Mexico (since 1984).

Chairman, Organizing Committee, 47th Annual Meteoritical Society Meeting, Albuquerque, N.M. (1984).

Member, Program Committee, 47th Annual Meteoritical Society Meeting.

Several interviews with Frank Martinez, UNM Public Information, on activities in the Institute of Meteoritics and during Meteoritical Society Meeting.

Interview with Albuquerque Tribune on Meteoritical Society Meeting.

Taped radio program with Russell Goodman of UNM on research in the Institute of Meteoritics. July 27, 1984.

Interview with Boston Globe on Meteoritical Society Meeting. July 31, 1984.

Hosted visitors for UNM Parents Day in Meteorite Museum. Oct. 13, 1984.

Hosted tour of Institute of Meteoritics, Meteorite Museum and laboratories for International Science Teachers Conference. Nov. 29, 1984.

Cornelis Klein

Invited papers presented

Three papers presented at Rand Afrikaans University, Johannesburg, South Africa: "Some recent advances in Mineralogy"; "Diagenesis and metamorphism of

iron-formations"; and "Precambrian banded iron-formations: facts and questions," February 1984.

One paper at the University of Witwatersrand, Johannesburg, South Africa, entitled "Diagenesis and Metamorphism of iron-formations," March 1984.

One paper at the University of Capetown, Capetown, South Africa, "Precambrian banded iron-formations: facts and questions," February 1984.

Two papers in the Department of Geology, Stanford University, April 1-3, 1984.

Plenary lecture "Some recent advances in Mineralogy" in the Mineralogy section of Geokongress 1984, Potchestrom, South Africa, July 9, 1985.

Two lectures in the Department of Geology, University of Texas, El Paso, Dec. 12, 1985.

Field trip coordinator

South African Field Seminar, Precambrian Paleobiology Research Group, June 13-July 14, 1985.

Ph.D. thesis reader

for Richard C. Morris, University of Western Australia, Perth, W. A.; thesis entitled "Genesis of iron ore in banded iron-formation by supergene and supergene - metamorphic processes - a conceptual model".

Manuscript and proposal review for the following:

National Science Foundation, The American Mineralogist, Precambrian Research, and The Canadian Mineralogist.

Albert M. Kudo

Presented two talks at the Geology Department, University of New Orleans, LA.

Reviewed papers for Journal of Geophysical Research, Contributions to Mineralogy and Petrology, Geofisica Internacional, and a text for McGraw-Hill.

Consulting for Kerr-McGee Corp., Panamex, and State Environmental Office

Master chairman of Physical Sciences Judges, NW Regional Science Fair

Barry S. Kues

Reviewed manuscripts for:

New Mexico Geological Society Guidebook 35, The Journal of Paleontology, and the Geological Society of America Memoir on the San Juan Basin.

Consultancies

Advised U.S. Bureau of Land Management on paleontological mitigation procedures for surface coal mines on federal lands in New Mexico; and on geologically important areas in west-central New Mexico (meetings and phone conversations through year).

Advised Dr. David Taylor, Portland State University, on New Mexico's Natural History Museum, relative to Taylor's attempts to establish a museum in Portland, Oregon. (February)

Advised Andy Wiessner, New Mexico Congressional Delegation staff, on wording and proposed wilderness area boundaries for a bill to establish a San Juan Wilderness Area to be presented before the U.S. Congress (Bill was passed by both houses and signed into law by President Reagan in October)

Judged artistic renderings in a competition for a mural on Jurassic dinosaurs to be installed in the N.M. Museum of Natural History; also advised the museum director on various other paleontological matters (throughout year).

Reviewed a PNM paleontological mitigation plan for transmission lines through the Tucumcari area (July).

Media

Interview with Sherry Robinson, published as part of an article on San Juan Basin coal development, Denver Post Magazine (February 5).

Telephone interview with Sunset Magazine relative to Bisti Badlands article (February).

Telephone interview with Jim Cummings, on Bisti area paleontology, for an article in Environmental Action Journal, Washington, D.C. (April).

Several interviews, and led field trip for a crew for TV station KCTS in Seattle, preparing a documentary program involving the Bisti area, to air nationally early in 1985 (May-June).

Spencer G. Lucas

Consultations

February 9, Meeting with U.S. Bureau of Land Management to discuss policy regarding the conservation of paleontological resources, Albuquerque.

February 14, Meeting with N.M. State Land Office concerning fossils and mining mitigation in U-Bar Cave, Socorro.

March 1, Meeting with U.S. Bureau of Land Management to discuss policy with regard to paleontological resources, Albuquerque.

March 22, Meeting with U.S. Bureau of Land Management and N.M. Energy & Minerals Department regarding policy with regard to paleontological resources, Santa Fe.

July 5, Consultation with N.M. Museum of Natural History on Eocene mammal quarry near Cerrillos, N.M.

July 30, Meeting with U.S. Bureau of Land Management and Coal Company representatives to discuss policy with regard to paleontological resources, Albuquerque.

September 6, Consultation with N.M. Museum of Natural History on Eocene mammal quarry near Cerrillos, N.M.

September 8, Consultation with N.M. Museum of Natural History on Eocene mammal quarry near Cerrillos, N.M.

September 22, 23, 25, 30, October 2, 4, Consultation with N.M. Museum of Natural History on Eocene mammal quarry near Cerrillos, N.M.

October 18, Consultation with N.M. Museum of Natural History on Eocene mammal tracks near Magdalena.

Other Professional Activities

July 3, U.N.M. Speakers Bureau talk to Rio Rancho Rotary Club, Albuquerque.

March 28, Tour of UNM paleontology collection for selected students from Albuquerque Academy, Albuquerque.

April 2, Attended N.M. Geological Society Executive Committee Meeting, Albuquerque.

September 10, Attended N.M. Geological Society Executive Committee Meeting.

Ian D. R. Mackinnon

Reviewed papers for Journal of Geophysical Research.

Reviewed proposal for NASA Lunar and Planetary Geoscience Review Panel.

Consultant to Exxon Production and Research Co., Houston, Texas.

Leslie D. McFadden

Reviews of Scholarly Articles and Proposals for Journal of Arid Environments, Soil Science Society of America Journal, and National Science Foundation.

New Course Work

Cenozic Geology of New Mexico.

Stephen G. Wells

Reviewed articles for GSA Geology, and proposals for the National Science Foundation (Earth Surface Processes Division).

Lee A. Woodward

Reviewed research proposals for National Science Foundation.

Reviewed papers for American Association of Petroleum Geologists - Society of Economic Paleontologists and Mineralogists, and for the American Association of Petroleum Geologists Bulletin, and the Bulletin of the Geological Society of America.

Reviewed manuscript for New Mexico Bureau of Mines and Mineral Resources.

Robyn Wright

Presentation of Talks and Projects

January 20, 27-31: Amoco International Inc. consultation and presentation of final project entitled "Geology of Antarctica: Tectonics, Stratigraphy and Basin Development."

February 2: Presented talk to New Mexico State University, Department of Geology, entitled "Cyclic Sedimentation within the Pt. Lookout Fm., Upper Cretaceous San Juan Basin."

February 9: Presented talk to Institute for Arctic and Alpine Research, University of Colorado, Boulder, entitled "Glacial relief on the Antarctic continental margin: relation between glacial and sediment gravity flow activity."

April 17: Presented talk to Albuquerque Geological Society entitled "Cyclic Sedimentation within the Upper Cretaceous Pt. Lookout Fm., a Model for Strandline Progradation and Sandstone Distribution."

June 12: Presented talk to Institute of Geology, Kiel University, Kiel, Germany, entitled "Cyclic Sedimentation within the Upper Cretaceous sandstones of the western United States."

Media Mention

March 29: Article published in Univeristy of New Mexico Campus News describing new sedimentology program.

Crayton J. Yapp

Reviewed manuscripts for the following journals: Geochimica et Cosmochimica Acta, Science and Nature.

Cooperated with S.J. Lambert of Sandia Labs in the analysis of D/H ratios of hydrogen gas at UNM for interlaboratory comparisons.

Served on an informal advisory panel to the Environmental Improvement Division of New Mexico in the early development of a program for sampling and analyzing groundwater in the Albuquerque area.

Guest lecturer for Dr. R. Anderson's paleoclimate and Dr. R. Ewing's mineralogy classes in UNM's Geology Department.

Responsible for the purchase and installation of a new isotope ratio mass spectrometer in UNM's Geology Department. Responsible for the renovation of the laboratory to house the instrument.

Responsible for the hiring and training of a Research Associate in the Geology Department's stable isotope laboratory.

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8. NON-TEACHING UNIVERSITY SERVICE

Roger Y. Anderson

Chairperson, University Committee on Quaternary Studies (reorganization of Paleoecology Program into Quaternary Studies.)

Douglas G. Brookins

UNM Faculty Senate, 1982-84

UNM Research Allocations Committee, 1983, 84, 85 -

UNM Promotion Advisory Committee, Chairman, 1984-85 Natural Sciences-Mathematics

UNM Tenure Advisory Committee for College of Arts and Sciences

UNM Science Education Advisory Committee

UNM-APS Science Advisement Committee

UNM Committee on Nuclear Education

UNM Representative to American Nuclear Society - Environmental Science Division

UNM-APS Career Enrichment Center summer program (for fifth straight year; supervised part of summer 84 work for B. Sakai, St. Pius HS)

UNM Geology Department committees: Rb-Sr geochronology laboratory use committee, graduate committee, INAA laboratory use committee, structural geologist search committee

Host for G401 lecturers: Dr. Charles Meyer, Oct. 8; Dr. William Atkinson, Nov. 1; Dr. Malcolm Siegel, Dec. 6.

Bryan C. Chakoumakos

Supervisor of X-ray diffraction laboratory (Geology).

Assisted in the design of mineralogy/petrology exhibits for the Geology Department museum renovation (in progress).

Supervisor (6 months) for Ed Binasiewicz, a Sandia employee working in the Geology Department awaiting security clearance.

Liaison between the Geology and Radiation Safety Departments, for monitoring X-ray equipment users.

Wolfgang E. Elston

Shared responsibility (with S.G. Wells) for department vehicles.

Participated (with UNM Office of International Programs) in student exchange agreement between UNM and Technische Hochschule Aachen (West Germany).

Initiated negotiations for eventual UNM participation in DOSSEC, Inc. (Deep Observation and Sampling of the Earth's Continental Crust), part of the NSF-sponsored program for Continental Scientific Drilling Program (CSDP).

Represented UNM at Los Alamos Scientific Laboratory, planning for Department of Energy-sponsored drilling in Valles Caldera under CSDP.

Hosted visits to UNM by Dr. Tadahide Ui (University of Kobe, Japan), Dr. Edward Erlich (U.S. Geological Survey) and Dr. Ronald Girdler (University of Newcastle-upon-Tyne, U.K.).

1971

Hosted visit to UNM by Caswell Silver Distinguished Lecturer, Dr. Elburt F. Osborn (Pennsylvania State University), Oct. 21-31; arranged for lecture series by Dr. Osborn on "Experimental Phase Studies Bearing on the Origin of Subalkaline Volcanic Rocks."

Faculty Advisor, Student Chapter, American Institute of Mining and Metallurigical Engineers.

Inspected site in Jemez Mountains for suitability as UNM facility, with S.Y. Jackson (UNM Development Office) and A.S. Prickett, (UNM Real Estate Coordinator) Oct. 2; wrote report on suitability for geologic field camp.

Principal advisor to 14 graduate students:

3 Ph.D. candidates; 3 Post-M.S. students; 5 M.S. candidates; 1 post-B.S. graduate student; and 2 exchange students, Technische Hochschule Aachen (West Germany).

Chaired 2 Ph.D. Qualifying/Comprehensive Examinations Committees and 1 Ph.D. Qualifying Examination.

Committee Member, 2 Ph.D. Qualifying/Comprehensive Examinations.

Committee Member 7 M.S. Comprehensive Examinations.

Chaired 1 Ph.D. Dissertation Defense, and 2 M.S. Thesis Defenses.

Principal Co-Referent (with H. Foerster) for 2 Diplomarbeiten (= Co-Advisor on 2 M.S. theses), Technische Hochschule Aachen (West Germany).

Outside Examiner for 1 Ph.D. dissertation, University of New England, Armidale, N.S.W., Australia.

Rodney C. Ewing

Chairman, Department of Geology (ending May 15, 1984)

University Committees:

member, Long-Range Planning Committee

member, Library Task Force

member, Centers for Excellence Building Committee

member, Dept. of Geology, Undergraduate Committee and Undergraduate Advisor

Guest lecturer for Creative Principles in the Arts and Sciences (taught by Harvena Richter and Fred Strum).

Continued responsibility for supervision of:

X-Ray Diffraction Laboratory

Electron Microscopy Laboratory

Mineralogy Collections

Harding Pegmatite Property

John W. Geissman

Graduate Advisory Committee (while at Colorado School of Mines)

Research Committee (while at Colorado School of Mines)

Undergraduate Committee, Geology Department (UNM)

Thesis Advisor:

CSM Students: Mark Hudson, Ph.D.; John Karachewski, Ph.D.; William Oppenheimer, MSc; Georgia Snyder, MSc; Douglas Hazlett, MSc; Kenneth Shonk, MSc; E. Kenneth Sheldon, MSc; Garret Graaskamp, MSc.

At UNM, faculty advisor for one M.S. and two Ph.D. students.

Jeffrey A. Grambling

Committee on Graduate Admissions and Financial Aid (Geology)

Supervisor of Thin-Section Laboratory (Geology)

Structural Geologist Search Committee (Geology), member

Research Policy Committee (UNM)

Overhead and Budget Review Subcommittee (UNM)

Research Recognition Subcommittee (UNM)

Faculty advisor for 7 M.S. students, 2 Ph.D. students

Stephen P. Huestis

Faculty advisor - two M.S. students, one Ph.D. student

Departmental committees:

Computer use (chair);

Undergraduate;

Chairmanship, Search Committee;

Paleomagnetism position (chair);

Structural geology, Search Committee;

Ad hoc committee of Ph.D. curriculum/program (chair).

Klaus Keil

Administration of the Institute of Meteoritics and its collections.

Chairman and member of several thesis and dissertation committees in the Department of Geology.

Service on UNM-University of Sao Paulo, Brazil, joint research and exchange program committee.

Participated in Parent Day, UNM.

Served as Director of the Caswell Silver Foundation, Department of Geology, UNM.

Chaired search committee for Caswell Silver Distinguished Professor, Department of Geology, UNM.

Served on several M.S. and Ph.D. comprehensive examinations committees.

Served on Department of Geology Committee to revise requirements for geology Ph.D. program at UNM.

Served on UNM Honorary Degree Committee.

Hosted the visits of several prospective geology graduate students to UNM.

Served on Search Committee for Geology Department Chairperson.

Chaired Department of Geology Faculty Promotions Committee.

Served on Department of Geology Search Committee for transmission electron microscopist.

Official Pack Member, Welcome Back Daze, University of New Mexico.

Hosted 21 Club, University of New Mexico, Oct. 15, 1984.

Hosted visits to the Institute of Meteoritics of the following scholars, several of whom stayed for prolonged time periods for the purpose of research and advanced training:

- Dr. H. Newsom, Max-Planck Institute of Chemistry, Mainz, West Germany. Jan. 3-6, 1984.
- Dr. A. Ehlmann, Dept. of Geology, Texas Christian University, Fort Worth, Texas. Jan. 7-Aug. 1, 1984.
- Dr. H. Mark, Deputy Administrator, National Aeronautics and Space Administration, Washington, D.C.. Jan. 11, 1984.
- Dr. K. Rasmussen, Institute of Geophysics and Planetary Physics, University of California, Los

Angeles, California and Dept. of Geophysics, University of Copenhagen, Copenhagen, Denmark. Jan. 19-21, 1984.

- Julia Peck, Dept. of Geological Sciences, Harvard University, Cambridge, Mass. Jan. 19-21, 1984.
- Dr. K. Yanai, National Institute of Polar Research, Tokyo, Japan. Feb. 1-4, 1984.
- Dr. Patricia Foster, Association of American Universities, Claremont, California. Feb. 13, 1984.
- Dr. K.J. DeNault, Dept. of Earth Sciences, University of Northern Iowa, Cedar Falls, Iowa. March 8-9, 1984.
- Dr. B. French, NASA Headquarters, Washington, D.C. April 30, 1984.
- Dr. M. Prinz, American Museum of Natural History, New York, N.Y. June 8, 1984.
- Dr. A.E. Rubin, Institute of Geophysics and Planetary Physics, University of California, Los Angeles, California. June 7-9, 1984.
- Dr. C. Sonett, Dept. of Planetary Sciences, University of Arizona, Tucson, Arizona. June 13, 1984.
- J. McKinley, Rockwell Hanford Operations, Hanford, Washington. June 16, 1984.
- Dr. J. Berkley, Dept. of Geology, State University of New York, Fredonia, N.Y. July 5-Aug. 8, 1984.
- A. Bischoff, Dept. of Mineralogy and Petrology, University of Munster, Munster, West-Germany. July 20-Aug. 20, 1984.

- Dr. P. Coleman, Dept. of Geophysics and Planetary Physics, University of California, Los Angeles, California. Aug. 23, 1984.
- F. Curateon, Tucson, Arizona. Sept. 4, 1984.
- Dr. J. Dasch, Dept. of Geology, Oregon State University, Corvallis, Oregon. Sept. 18-19, 1984.
- J. McKinley, Hanford Operations, Hanford, Washington. Nov. 19-21, 1984.
- Dr. Rita Beebe, Dept. of Astronomy, New Mexico State University, Las Cruces, New Mexico. Nov. 30, 1984.

Cornelis Klein

Chair, Geology Department (as of August, 1984)

Member, Committee on the College of Science

Member of the Committee of Chairs, College of Arts and Sciences

Secretary, Caswell Silver Foundation, Geology Department

Member, President's Advisory Committee on Science and Technology

Albert M. Kudo

Chairman, UNM-Science Colloquium Committee

Chairman, UNM-Sandia Colloquium Committee

Chair of the department Undergraduate Committee

Member, department Graduate Committee

Member, department Scholarship Committee

Member, department Petrology Sequence, Collections Committee

In charge of department Microscopes

Faculty advisor of Geology Honorary Society, Sigma Gamma Epsilon

Faculty representative on Leisure Services Advisory Council

Chairman of four M.S. thesis committees

Member of five Ph.D. dissertation committees

Member of ten M.S. thesis committees.

Barry S. Kues

Assistant Chairman, Department of Geology

Acting Chariman,. Department of Geology (June-September)

UNM Graduate Committee

UNM Committee on Southwestern Studies (from September)

Geology Department graduate advisor; Chairman of Graduate Committee

Supervised renovation of Geology Department specimen storage area

Revised Geology Department information booklet

Graduate Student Committees:

Chairman, one M.S. committee;

Reader on 6 other M.S. student committees in Geology;

Reader, three Ph.D. students, Biology Department;

Reader, M.S. student in Anthropology.

Spencer G. Lucas

Fall 1984, Chairman, Geology Department Curatorial Committee

Fall 1984, Member, Ad-hoc committee on Geology Ph.D. requirements

Leslie D. McFadden

Chairman, Department of Geology Scholarship Committee

Undergraduate Committee Member, Department of Geology

Co-director of Quarternary Studies Laboratory

Structural Geologist Candidate Search Committee member

Thesis Committee Member/Reader - 3 M.S. Thesis, 1 Doctoral Thesis

Member, Welcome Back Daze Lobo Patrol

Lee A. Woodward

Map Room Supervisor

Member, Geology Scholarship Committee

Board Member, Energy Exploration Education Inc.

Member, Structural Geologist Search Committee

Robyn Wright

Presented Geology 401 Seminar entitled "Antarctica's Role in Gondwanaland Reconstructions."

Member, selection committee for new department chairman

Member, selection committee for paleomagnetics position

Graduate Admissions Committee

Undergraduate Committee

EEC Professorship committee

Chairperson for AAPG Distinguished Lecture Series

Undergraduate Advisor

Graduate Advisor

Major Advisor or Co-Advisor: 4

Committee Member Only: 4

Comprehensive committees (3 Ph.D., 10 M.S.)

Crayton J. Yapp

Member of UNM Faculty Senate

Member of search committee for paleomagnetist faculty position in UNM's Geology Department

Member of Geology Department's Scholarship Committee

Member of Geology Department's ad hoc committee to review departmental Ph.D. requirements

Chairman of departmental reading room committee

Chairman of departmental committee for the American Association of Petroleum Geologists Distinguished Lecture Series, Spring, 1984

Served on five M.S. comprehensive exam committees

Served on five Ph.D. qualifying and comprehensive exam committees

Served on four M.S. thesis committees

Member of "Lobo Patrol," Fall, 1984. Group of faculty designated to answer questions, etc., for the benefit of new students.

Invited and served as host for Dr. Hugh P. Taylor, Jr., of the California Institute of Technology, who was a Sandia Colloquium Distinguished Speaker in UNM's Geology Department, Spring, 1984.

9. PUBLIC SERVICE

Douglas G. Brookins

Vice President, Congregation Albert (Reform Jewish Temple, 470 families), 1983-85, and President-elect for 1985-87.

Energy lecturer for the Society for the Development of Gifted and Talented Students, APS.

Volunteer work, American Diabetes Association (Albuquerque Chapter).

Bryan C. Chakoumakos

Arranged the donation of teaching materials (mineral specimens) to the Albuquerque Public Schools (Russel Ives).

Wolfgang E. Elston

"Mount St. Helens," talk given at Senior Daycare Center, Asbury Methodist Church, Albuquerque, Sept. 2.

Participated in meeting of Geological Society of America Ad Hoc Committee on Minorities in the Geosciences, Reno, NV, Nov 2.

Active in Neighborhood Association, Sunset Terrace Addition, Albuquerque.

Rodney C. Ewing

Guest lecture for the Rio Rancho Rock Hound Club on "Radioactive Minerals" on May 1, 1984.

Jeffrey A. Grambling

Identification of rocks and minerals for the public.

Participant, Career Guidance Institute, Albuquerque Chamber of Commerce.

Various activities, Immanuel Presbyterian Church.

John W. Husler

Science Fair Judge: Taylor Mid School, Mark Twain Elementary, Regional Science Fair.

Chemical "Magic" demonstrations, Mark Twain Elementary and La Mesa Summer Drop In Program.

Member Albuquerque Municipal Band, Frank Und Freunden German Band, La Mesa Presbyterian Choir, Bell Choir.

Sponsor of La Mesa Presbyterian Senior High Group.

Concerts for rest homes, shut-ins, city park and museum dedications.

Volunteer for Young Children's Health Clinic.

Klaus Keil

Made available to the following scientists and institutions the electron microprobe and scanning electron microscope facilities in the Dept. of Geology and Institute of Meteoritics at UNM and instructed their personnel in the use of the equipment:

Dr. A. Ehlman, Dept. of Geology, Texas Christian University, Fort Worth, Texas.

Institute for Explosive Research, New Mexico Institute of Mining and Technology, Socorro, New Mexico.

Dr. P. Kyle and students, Dept. of Geology, New Mexico Institute of Mining and Technology, Socorro, New Mexico.

Dr. K.J. DeNault, Dept. of Earth Sciences, University of Northern Iowa, Cedar Falls, Iowa.

Dr. J.L. Berkley, Dept. of Geology, State University of New York, Fredonia, New York.

Dr. W.A. Gross, College of Engineering, University of New Mexico, Albuquerque, New Mexico.

Dr. Charles Stein, Albuquerque, New Mexico.

Signetics Corporation, Albuquerque, New Mexico.

Mr. A. Bischoff, Dept. of Mineralogy and Petrology, University of Munster, Munster, West-Germany.

Presented talk on "Meteorites - From asteroids, comets, Moon and Mars" to Albuquerque Rock Hound Club, Feb. 7, 1984.

Hosted visit of the Los Alamos Geological Society to the Meteorite Museum, University of New Mexico, February 25, 1984.

Hosted visit of Albuquerque elementary school student, Lorena LaRue, to Institute of Meteoritics, March 28, 1984.

Presented talk on "A Voyage Through Our Solar System" to Albuquerque Gem and Mineral Club, Albuqueruqe, New Mexico, Sept. 24, 1984.

Many private showings of moon rocks to interested citizens, school classes, civic groups, etc., many of which were after working hours and on weekends.

Investigated without charge many rocks suspected to be meteorites and brought to the Institute by citizens.

Albert A. Kudo

Talk at UNM Ski Club, January 12, 1985.

Identification of rocks and minerals for public.

Assisted in fund-raising for Young Children's Health Center.

Gave geology talk to Gifted class at John Baker Elementary School.

Barry S. Kues

Talk on dinosaurs to Monte Vista Elementary School class.

Judge in 25th annual northwestern New Mexico regional Science and Engineering Fair.

Talk to Rio Rancho Rockhound Club on pending federal legislation regarding fossil-collecting on federal lands.

Talk on prehistoric animals of New Mexico to Sombre de Monte Elementary School class.

Spencer G. Lucas

Talk on Bisti Badlands to Los Alamos Geological Society, Los Alamos, New Mexico.

Lunch talk to students at Albuquerque Academy about paleontology at UNM, Albuquerque.

Tour of UNM paleontology collection for Los Alamos Geological Society, Albuquerque.

Tour of UNM paleontology collection for geology majors from McMurry College, Abilene, Texas, Albuquerque.

U.N.M. Speakers Bureau talk to Sertoma Club, Albuquerque.

Talk on Eocene mammals to Institute of Vertebrate Paleo, Beijing, China.

Leader of trip to Bisti Badlands for N.M. Museum of Natural History Formation.

U.N.M. Speakers Bureau talk to Exchange Club.

Talk about dinosaurs to students at Van Buren Middle School.

Leslie D. McFadden

Active participation in U.S. Volleyball Association, Sun Country Region.

Robyn Wright

Volunteer - Girl Scouts of America.

1995

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APPENDICES

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I: GRADUATES FOR 1984-1985

The following students completed degrees during the report period.

B.S.

Catherine Lee Bowman
Amy S. Dixon
Michael B. Hinman
Frank M. Hodge III
Clifford J. Jarmon
Scott Eugene Johnson
Rima Petrossian
Charles E. Reynolds
Brian L. Salem
Nancy Ann Schott
Jay Stewart Schreffler
Mark S. Servilla
Patti Joy Tuve

M.S.

Bill Raymond Banowsky, "Stratigraphy, Structure and Hydrocarbon Potential of the Snedaker Basin Quadrangle, Montana."

Thomas F. Bullard, "Influence of Bedrock Geology on Complex Geomorphic Responses and Late Quarternary Geomorphic Evolution of Kim-me-ni-oli Wash Drainage Basin, Northwestern New Mexico."

William Cavin, "Precambrian Geology of the Northern Manzanita Mountains, New Mexico."

David Crouse, "Structure and Stratigraphy of Part of the French Mesa Quadrangle, Rio Arriba County, New Mexico."

Gerald Kepes, "Precambrian Geology of the Kiowa Mountain Area and Cerro Azul, New Mexico: Comments on Structural Similarities in the Proterozoic of Northern New Mexico."

Ronald K. Matheney, "Rb-Sr Geochronological Studies of Plutonic Rocks, Florida Mountains, New Mexico."

Susan G. McKinley, "Petrology and Classification of 145 Small Meteorites from the Allan Hills, Antarctica."

Jerry R. Miller, "Sediment, Storage, Transport, and Geochemistry in Semiarid Fluvial and Eolian Systems: Applications to Long Term Stability and Potential Dispersal Patterns of Uranium Tailings in the Grants Mineral Belt, New Mexico."

Mark T. Murphy, "Strontium-Isotope and Trace-Element Geochemistry of the Platero Caldera Complex, Colorado."

John D. Pickle, "Dynamics of Clastic Sedimentation and Watershed Evolution within a Low-Relief Karst Drainage Basin, Mammoth Cave Region, Kentucky."

Robert B. Trumbull, "Petrology of Flecked Gneisses in the Northern Wet Mountains, Fremont County, Colorado.

Ph.D.

Christopher D. Condit, "The Geology of the Western Part of the Springerville Volcanic Field, East-Central Arizona."

II. RESEARCH GRANTS AND CONTRACTS IN THE DEPARTMENT OF GEOLOGY AND THE INSTITUTE OF METEORITICS -- ACTIVE IN 1984-85, AS WELL AS NEW AWARDS SINCE SEPTEMBER, 1984.

ROGER Y. ANDERSON

NSF (ending 5/31/85) $ 64,805
"Measure of Effects of Mt. St. Helens Tephra on Lakes, Using Auto Sedimentary Traps."

DOUGLAS G. BROOKINS

Sandia National Laboratories (10/1/83 - 9/30/84) $ 50,000
"Geochemical Study of the WIPP Site Area, New Mexico."

U.S. Department of Energy (9/1/84 - 3/31/85) $300,000
"A Mass Spectrometer for Refined Isotopic Measurements on Repository Rocks for Nuclear Waste Isolation."

Sandia National Labs "Geochemical Studies of the WIPP Area Surface Deposits." $ 40,000

Oak Ridge National Labs (Martin Marietta) $ 22,001
"Sedimentary Rock Program Workshop: Radioactive Waste Studies."

Oak Ridge National Labs (Martin Marietta) $ 19,986
"Natural Analogues for Radioactive Waste Disposal."

Rockwell International (6-84 - 12-31-84) $ 24,800
"Strontium Isotopic Studies of BWIPP Samples."

JONATHAN F. CALLENDER

NSF, "Structural Petrology, Metamorphism and Tectonic History of Precambrian Rocks in the Picuris Range, New Mexico" (until 2-28-85) (R. J. Holcombe, Co-PI). $ 84,083

WOLFGANG E. ELSTON

NSF (11/1/83 - 10/31/86) $120,000
"Cenozoic Extensional Orogeny of the New Mexico Segment of the Basin and Range Province."

NASA (5/1/84 - 4/30/85) $ 34,490
"Applications of Volcanology to Lunar and Planetary Geology"; this grant to be continued with additional funding.

NSF (3/1/85 - 8/31/86) $ 10,000
"Pyroclastic eruptions of Mount St. Helens, May 18, 1980."

RODNEY C. EWING

Department of Energy/OBES (8/1/84 - 8/1/85) $ 71,500
"Radiation Effects and Annealing Kinetics in Crystalline Materials."

Continuation (8/1/85 - 8/1/86) $ 75,000

Argonne National Laboratories (10/1/84 - 6/1/86) $ 80,000
"Alteration of Basaltic Glasses..."

Sandia National Laboratories (2/11/85 - 9/30/85) $ 19,880
"Characterization of Glass and Ceramic Materials."

Binational Science Foundation (Oct. 1, 1984 - Sept. 30, 1986) (Israel - U.S.A.) (P.I. with Yehuda Eyal, admin., Technion University, Haifa) $ 60,000
"Differential Etching of Radionuclides from Natural Materials."

JOHN W. GEISSMAN

NSF (9/1/84 - 2/28/86) $ 56,015
"Paleomagnetic Investigations of the Stillwater Complex and Associated Unit, Stillwater County Montana"; from (CSM).

American Chemical Society (1/1/85 - 8/31/86) $ 32,800
"Humboldt Lopolith and Associated Units, West-Central Nevada."

NSF (3/1/85 - 8/1/86) $ 46,440
"Mesozoic/Cenozoic Tectonics of West-Central Nevada"; (from CSM).

NSF (3/1/85 - 2/28/86) $ 10,856
"Anisotropy Magnetic Susceptibility Equipment" (shared with Bond money).

NSF (beginning August 1, 1985) $111,650
"Acquisition of a Standard Axis Cryogenic Magnetometer" (shared with Bond money).

JEFFREY A. GRAMBLING

NSF (11/1/83 - 10/31/86) $ 98,500
"Effects of Minor Elements on Metamorphic Phase Relations."

Anaconda Minerals, Inc. (6/1/84 - 5/31/85) $ 5,600
"Geology, Economic Potential and Structural Features Associated with Stratabond and Discordant Precious Metal Mineralization, Northern New Mexico."

NSF (6/1/84 - 12/31/86) $ 65,440
"Foliation Development, Porphyroblast Nucleation and Growth, and Deformational History." (Co PI T. Bell).

KLAUS KEIL

Sandia National Laboratories (10/1/84 - 9/30/85) $ 48,551
"Halite Mineralogy of the Solado Formation."

Sandia National Laboratories (10/1/84 - 9/30/85) $ 78,939
"Geological Support Work of Nevada Nuclear Waste Storage Investigations."

NSF (1/1/85 - 12/31/85) $ 7,429
"Physical and Chemical Conditions of the Lower Crust as Deduced from Xenoliths in Lavas of the Leucite Hills, Wyoming."

NSF (7/1/82 - 12/31/84) $180,000
"Partial Funding of Electron Microprobe X-Ray Analyzer."

Sandia National Laboratories (10/1/83 - 9/30/84) $ 61,749
"Geological Support Work of Nevada Nuclear Waste Storage Investigation."

Sandia National Laboratories (7/29/83 - 9/30/84) $ 25,134
"Halite Mineralogy of the Solado Formation."

NASA (2/1/84 - 1/31/85) $235,000
"Origin and Evolution of Meteorite Parent Bodies."

NASA (1/1/84 - 12/1/84) $100,000
Partial Funding of Transmission Electron Microscope.

NASA (2/1/85 - 1/31/86) $246,500
"Origin and Evolution of Meteorite Parent Bodies and the Moon."

CORNELIS KLEIN

NSF (4/1/85 - 9/30/87) $153,500
"Geochemistry and Sedimentology of Some Essentially Unmetamorphosed Precambrian Iron-Formation Sequences."

NSF (11/1/84 - 4/30/86) $ 29,200
"Comparative Studies of Several Precambrian Iron-Formations and Some Manganese Deposits."

National Geographic Society (PI with J. W. Schopf et al., administered at UCLA) -- "The Earliest History of Life" -- field work in 1985 and 1986. $ 69,200

NASA Grant NAGW-252, "Interdisciplinary Study of Precambrian Paleobiology", co-investigator with J. G. C. Walker, J. M. Hayes, J. W. Schopf, and M. R. Walter; administered at the University of Michigan $ 59,980

SPENCER G. LUCAS

State of N.M., Natural Resources Dept., (ending May 1985). Museum Exhibit at Elephant Butte State Park. $ 2,000

(with R. Ewing and B. Kues) UNM Foundation, Renovation of Geology Museum. $ 12,000

IAN D. R. MACKINNON

NASA, "Analytical electron microscopy of fine-grained extraterrestrial materials", 1982-84 (Co PI with D. S. McKay) $225,000

LESLIE D. McFADDEN

University of California (Santa Barbara) (8/84 - 12/84), "Analysis of Soils from the Western Transverse Ranges, California." $ 3,000

U.S.G.S. (9/30/84 - 9/30/85) $ 28,500
"Analysis of Soils From Chronosequences in the Western United States."

Stanford University (3/85 - 6/85) $ 1,000
"Analysis of Quaternary Soils from Greece."

STEPHEN G. WELLS

Latin American Institute (12/83 - 12/84) $ 1,500
"Tectonic Geomorphology of the Western Coast of Costa Rica: A Comparison of Different Plate Tectonic Settings."

LEE A. WOODWARD

New Mexico Bureau of Mines (1/1/84 - 12/31/84) $ 2,000
"Stratigraphy of Hagan Basin, New Mexico."

New Mexico Bureau of Mines and Mineral Resources $ 2,000
(May 15 - Dec. 31, 1985)
"Geology of French Mesa, 7.5 minute quadrangle."

ROBYN WRIGHT

Sandia National Laboratories (10/1/84 - 9/30/85) $ 30,000
"Vertical Progressions in Settling Velocity (Setvel) as Indication of Depositional Process and Environment."

CRAYTON J. YAPP

NSF (2/1/84 - 7/31/86) $ 66,200
"Stable Isotope and Chemical Study of the Mineral System Goethite-Hematite with Applications to Iron-Rich Sedimentary Rocks."

NSF (3/1/84 - 9/31/85) $ 70,000
"Acquisition of a Gas Source, Light Element Isotope Ratio Mass Spectrometer."

TOTAL $3,242,228

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RESEARCH ALLOCATION COMMITTEE GRANTS

Elston, Wolfgang E.	$1,600.00
Geissman, John W.	2,500.00
Kudo, Albert M.	1,200.00
Wells, Stephen G.	2,150.00
Woodward, Lee A.	1,051.00
Wright, Robyn	2,500.00
	$11,001.00

III: Visiting Lecturers to the Department of Geology and the Institute of Meteoritics

Dr. A. E. Rubin June 8, 1984	"Coarse-grained chondrule rims and their implications for the genesis of chondrules."	University of California, Los Angeles
Addi Bischoff July 25, 1984	"Bulk compositions of Al-rich chondrules in ordinary and carbonaceous chondrites: variations and similarities." "Perovskite-hibonite-and spinel-bearing refactory inclusions and Ca-Al-rich chondrules in enstatite.	University of Munster, West Germany
Dr. W. Klock July 25, 1984	"Trace elements in native iron from DISKO."	Max-Planck Institute of Chemistry, Mainz, West Germany
Dr. Ronald H. Vernon September 6, 1984	"Metamorphism, structure and ore bodies of Broken Hill, Australia."	Macquarie University, Australia
Dr. J. Dasch September 18, 1984	"New isotopic data of rocks from the Moon and from Greenland."	Oregon State University
Dr. Joel Dan September 25, 1984	"Soil Chronosequences of Israel." "The formation of calcic and petrocalcic horizons in Israel."	The Volcanic Center, Tel Aviv, Israel
Dr. Roger Bateman September 27, 1984	"Structural relationships around the Cannibal Creek Granite in northeastern Australia: A ballooning diapir."	James Cook University, Australia
Dr. Edward Erlich October 4, 1984	"Spatial and Temporal Distribution of Kimberlites in the Siberian Platform."	United States Geological Survey, Denver, Colorado

Visiting Lecturers to the Department of Geology
and the Institute of Meteoritics

Mr. Mike Davies October 8, 1984	"Log Interpretation"	Southern Union Gas, El Paso, Texas
Dr. Kerry Nelson October 11, 1984	"Spectroscopic study of Glasses"	Sandia National Laboratories
Dr. Martha Withjack October 16, 1984	"Rift deformation produced by combined extention and shearing."	American Association of Petroleum Geologists, Houston, Texas
Dr. Charles Meyer October 18, 1984	"World major metal deposits: distribution and future outlook."	University of California/ Berkeley, California
Dr. Tadahide Ui October 19, 1984	"Characterization of volcanic avalanche deposits of Japan."	University of Kobe, Japan Researcher at USGS
Dr. Elburt F. Osborn October 22, 25 and 29, 1984	"Experimental phase equilibrium studies bearing on the origin of subalkaline igneous rocks."	Caswell Silver Distinguished Lecturer/ Distinguished Professor Emeritus, The Carnegie Institute of Washington
Dr. J. G. Brush October 26, 1984	"Theories of the origin of the solar system."	University of Maryland, Department of History, College Park, Maryland
Dr. William Atkinson November 1, 1984	"Comprehensive model of hydrothermal ore deposit genesis."	University of Colorado, Boulder, Colorado

Visiting Lecturers to the Department of Geology
and the Institute of Meteoritics

Dr. Stephen L. Bolivar November 15, 1984	"Update on data integration techniques at Los Alamos National Laboratory."	Los Alamos National Laboratory
Dr. Timothy Bell November 29, 1984	"Porphyroblast nucleation: growth and dissolution in regionally metamorphosed rocks as a function of strain partitioning during foliation development."	James Cook University, Australia
Dr. Malcolm C. Siegel December 6, 1984	"Unravelling the cryptic cryptocrystallinity of marine manganese nodules."	Sandia National Laboratories
Professor Ronald Girdler December 13, 1984	"Propagating African Rifts"	University of New Castle-Upon-Tyne, England
Dr. Chris K. Mawer January 17, 1985	"Deep crustal shear zones of the Grenville Province, Ontario, Canada."	University of New Brunswick, Fredericton, N.B., Canada
Dr. Christian Teyssier January 24, 1095	"Large scale crustal deformation in an intracratonic tectonic environment."	Monash University, Melbourne, Australia
Dr. Harrison Schmitt January 31, 1985	"Field trip to the Moon"	Apollo 17 Lunar Module Pilot, U.S. Senator (NM), 1976-1982
Dr. Earle Kauffman February 7, 1985	"Dynamics of Cretaceous epi-continental seas."	University of Colorado, Boulder, Colorado
Dr. John A. Baross February 21, 1985	"Present-day submarine hydrothermal systems: links to the Precambrian."	University of Washington, Seattle, Washington

Visiting Lecturers to the Department of Geology
and the Institute of Meteoritics

Dr. Louis J. Cabri February 22, 1985	"Applications of proton microprobes in the mineral resources industry."	Canadian Centre for Mineral and Energy Technology, Ottawa, Ontario, Canada
Dr. Thomas McCord March 6, 1985	"Asteroids: what stuff are they?"	Hawaii Institute of Geophysics, Honolulu, Hawaii
Dr. Steven D. Scott March 6, 1985 March 7, 1985	"Lithogeochemical and mineralogical haloes as exploration guides for volcanogenic massive sulfide deposits." "Polymetallic sulfide deposits of the modern Pacific Ocean and their ancient analogues."	University of Toronto, Toronto, Canada
Dr. Gregory H. Mack March 21, 1985	"Stratigraphy and depositional environment of Lower Cretaceous sedimentary rocks in southwestern New Mexico."	New Mexico State University, Las Cruces, New Mexico
Paul Keaton March 22, 1985	"A Manned Mars Mission Study"	Los Alamos National Laboratory
Dr. J. William Schopf March 28, 1985	"The archean fossil record: recent progress and unsolved problems."	University of California, Los Angeles, California
Dr. R. A. Davis April 11, 1985	"Origin and development of barrier islands: West Florida examples."	University of South Florida, Tampa, Florida
Dr. Gregory J. Retallack April 25, 1985	"Factors in the origin of the North American prairie."	University of Oregon, Eugene, Oregon

Visiting Lecturers to the Department of Geology
and the Institute of Meteoritics

Dr. Laura Crossey April 25, 1985	"Organic acids and porosity enhancement in clastic rocks."	University of Wyoming Laramie, Wyoming
Dr. William Murphy May 2, 1985	"Thermodynamic and kinetic constraints on reaction rates among minerals and aqueous solutions."	Laboratoire de Géochimie, Toulouse, France
Dr. Cornelis Frick May 19-21, 1985	Visit to evaluate UNM Geology analytical facilities	Deputy Director, Geological Survey, Pretoria, South Africa

IV: STUDENT SCHOLARSHIPS AND RESEARCH AWARDS
1984 - 1985

ALBUQUERQUE GEM AND MINERAL CLUB SCHOLARSHIP

Brad Singer	$310.00
Michael Williams	$225.00

AMERICAN GEOLOGICAL INSTITUTE

Lisa Navarette	$1,000.00

ANACONDA

Roger Smith	$5,600.00

SOUTHERN UNION EXPLORATION COMPANY

Mike Hultgren	$1,600.00

ARGONNE NATIONAL LABS

Rachel Cowan	$12,000.00

ASSOCIATION OF GEOLOGY GRADUATE STUDENTS

John Wesling	$150.00
Gautam Sarkar	$150.00

GENERAL THOMAS D. CAMPBELL MEMORIAL SCHOLARSHIP

Robert Finch	$871.00
Christine Newsome	$871.00

GEOLOGY RESEARCH AND SCHOLARSHIP FUND

Thomas Bullard	$600.00
John Wesling	$250.00
Gautam Sarkar	$250.00
Brad Singer	$ 40.00
Rosemary Glenn	$350.00
John Kelly	$350.00

(GSA) STUDENT RESEARCH ALLOCATIONS COMMITTEE

Richard Abitz	$100.00
Paul Bauer	$175.00
Robert Beard	$100.00
Christopher Condit	$350.00
Rachel Cowan	$100.00
Berton Coxe	$175.00

David Crouse	$175.00
Michael Hultgren	$175.00
Paul Karas	$100.00
John Kelly	$100.00
Ron Matheney	$150.00
Mark Murphy	$175.00
Sheila Seaman	$168.00
Bradley Singer	$175.00
Roger Smith	$100.00
Keith Taylor	$175.00
James Walker	$175.00
John Wesling	$150.00
Stephen Whiteley	$175.00
Michael Williams	$175.00

GEOLOGY PUBLIC SERVICE SCHOLARSHIP FUND

Robert Beard	$150.00
Chris Menges	$225.00
Larry Smith	$225.00
David Lusby	$225.00
John Ritter	$200.00
Berton Coxe	$200.00
James Walker	$200.00
Dave Crouse	$150.00
Rich Abitz	$100.00
Mark Murphy	$309.00

John Ritter	$200.00
Tom Bullard	$200.00
Pennie Hobbie	$200.00

HARRY AND MABEL F. LEONARD SCHOLARSHIP FUND

Susan Rich	$1,300.00
Mary Boone	$1,300.00
Anne Tomasi	$1,000.00
Michael Jackson	$900.00
Robert Marvin	$500.00
Scott Johnson	$600.00
Kathy Komatz	$350.00
Brian Salem	$300.00
Tim Richardson	$200.00
Jim Brainard	$200.00

JAMES DREW PFEIFFER MEMORIAL AWARD

Susan Rich	$162.00

LOS ALAMOS GEOLOGICAL SOCIETY

Susan Rich	$ 75.00
Mary Boone	$ 75.00

LOS ALAMOS NATIONAL LABS

Robert Beard	$1,700.00

THE GEOLOGICAL SOCIETY OF AMERICA

Rodney V. Metcalf	$672.00
John B. Ritter	$600.00
Larry N. Smith	$850.00
James Faulds	$100.00

SOCIETY OF ECONOMIC PALEONTOLOGISTS & MINERALOGISTS (ROCKY MOUNTAIN SECTION)

Larry Smith	$1,000.00

NEW MEXICO GEOLOGICAL SOCIETY FELLOWSHIP

Mike Williams	$1,000.00

NEW MEXICO GEOLOGICAL SOCIETY GRANTS-IN-AID

Brad Singer	$800.00
James Walker	$500.00
John Kelly	$500.00
David Ward	$500.00
Paul Karas	$150.00

Larry Smith	$900.00
Roger Smith	$250.00
Shelia Seaman	$250.00
Rodney Metcalf	$300.00
Paul Bauer	$250.00
Robert Beard	$250.00
Mike Williams	$350.00
Rich Abitz	$300.00

RODNEY C. RHODES MEMORIAL SCHOLARSHIP

Tammy Dickinson	$200.00

J. PAUL FITZSIMMONS OUTSTANDING SOPHOMORE AWARD

Susan Rich

SHERMAN A. WENGERD OUTSTANDING JUNIOR AWARD

Robert Finch

STUART A. NORTHROP OUTSTANDING SENIOR AWARD

Chris Young

VINCENT C. KELLEY OUTSTANDING FIELD GEOLOGIST AWARD

Stuart Van Deusen

Nancy Schott

V: TEACHING AND RESEARCH ASSISTANTSHIPS

1984 - 1985

NAME	TA/RA	PROJECT DIRECTOR	FUNDING
R. Abitz	RA	Elston	NSF
S. Adams	RA	Anderson	NSF
C. Amindyas	RA	Elston	NSF
P. Bauer	RA	Callender	NSF
R. Beard	TA	Woodward	Department
M. Bersch	RA	Keil	NASA
C. Bryan	RA	Elston	Silver Foundation/NSF
T. Bullard	TA	Woodward	Department
J. Callian	RA	Geissman	NSF
C. Condit	RA	Elston	NASA
R. Cowan	TA/RA	Ewing	Dept./Gen. College
B. Coxe	TA	Kidd	General College
B. Criswell	TA	Kues/Elston	Dept./NASA/NSF
D. Crouse	TA	Woodward	Department
T. Dickinson	RA	Keil	NASA
B. Epling	RA	Keil	NASA
W. Farrand	RA	Keil	NASA
R. Glenn	RA	Keil	Sandia Nat'l. Lab.
P. Hestor	TA	Woodward	Department
M. Hultgren	TA	Kidd	General College
A. Hunt	TA	Lucas	Department

1977

NAME	TA/RA	PROJECT DIRECTOR	FUNDING
P. Karas	TA	Kidd	General College
K. Kelson	TA	Kidd	Dept./Gen. College
G. Lumpkin	RA	Ewing	BES/DOE
C. Menges	TA	Callender	Department
B. Menne	TA	Woodward	Department
R. Metcalf	TA	Grambling	Department
M. Murphy	RA	Brookins	Geology Public Service
D. Nealey	RA	Elston/Keil	U.S.Geological Survey
R. North	RA	Wright	Sandia Nat'l. Lab.
J. Perisco	TA	Woodward	Department
S. Recca	RA	Geissman	NSF
J. Ritter	TA/RA	/McFadden	Department
G. Sarkar	RA	Elston/Keil	India Govt./NSF
J. Saxton	RA	Geissman	NSF
S. Seaman	TA/RA	Grambling/Elston	Department/NSF
T. Sewards	RA	Keil	NASA
B. Singer	TA	Kidd	Department
L. Smith	TA	Wright	Department
R. Smith	RA/TA	Grambling/	Anaconda
T. Smith	TA	Woodward	Department
D. Szywalski	RA	Keil	NASA
K. Taylor	TA	Lucas	Department
J. Walker	TA	Woodward	Department
S. Whiteley	TA	Ewing/Kidd	Dept./Gen. College
C. Williams	RA	Keil	NASA
M. Williams	RA	JAG	NSF

VI: REPORT OF GRADUATE ADMISSIONS COMMITTEE

The number of applicants to our graduate program for the Spring and Fall semesters, 1985, was 284, compared to 323 for the Spring and Fall semesters of 1984. Applications, while still high in number, have been declining moderately over the past two years from the record 355 received in 1983. This is probably a consequence of the slump in the mineral and petroleum industries, traditionally the most important employers of our graduates, which has resulted in fewer employment opportunities for about the past four years. Fewer students are deciding to major in Geology at the undergraduate level because of the job cut-backs, and this is beginning to be felt now at the graduate level at universities throughout the United States. Tables 1-3 summarize in detail the characteristics of applicants for the Fall, 1984, and Spring and Fall, 1985 semesters, and Table 4 summarizes pertinent data for the past five years.

The department continues to be very selective in admitting applicants to its graduate program; about 18% of those who applied for the Spring and Fall 1985 semesters were admitted. Those accepted for the Fall, 1985 semester had an average grade-point average of 3.44 (A=4.0) and an average percentile score of between 74% and 79% on the various parts of the Graduate Record Exam (GRE). Comparative figures for the past five years are given in Table 5. The average student entering

the Geology graduate program thus was within the top one-fourth to one-fifth of all students taking the GRE, and many were in the top 10%. Applicants for the graduate program are judged on the basis of grades, recommendations, GRE scores, broadness and quality of background in geology and related sciences, goals in geology and other evidence of potential for success within our program.

Twenty students, or 29% of those accepted for the Spring and Fall 1984 semesters enrolled in the graduate program, and we expect a similar percentage, or about 15 students to enroll in the Spring and Fall 1985 semesters. Our success in attracting the very best applicants to our program, via assistantships, has been fair to good. Four new teaching assistants (Rachel Cowan, Univ. of Arizona; Patricia Hester, Univ. of Texas, Austin; John Persico, S.U.N.Y.; and Roger Smith, Univ. of Texas, Austin) and one new research assistant (William Farrand, Franklin & Marshall Univ.) began their studies at UNM in the Fall of 1984. In addition, James Faulds (M.S., Univ. of Arizona) accepted a Silver/Kelley Fellowship beginning in Fall, 1984. Three new teaching assistants will begin in Fall, 1985: Jeffrey Clark (M.S., Texas A & M), Daniel Erskine (California State Univ. at Hayward) and Julie Warner (Virginia Polytechnic Institute). No new Silver/Kelley Fellowship was awarded for the 1985-1986 academic year. The three students who accepted assistantships for Fall, 1985 represented 18% of the total of 17 assistantship offers made. There is tremendous competition among universities for the best students (especially, in our region, by the University of Texas at

Austin and the University of Arizona -- both with much larger Geology Departments than UNM), and several of the applicants to whom we made T.A.-ship offers accepted financially more lucrative offers from other universities. In addition, many very good students applied to whom we could not offer immediate financial aid; many of these received aid offers from other universities and will not be attending UNM.

One other trend deserves mention, an increasing percentage of applicants applying, and being accepted, into our Ph.D. program. In 1985 Ph.D. applicants amounted to 18% of the total graduate applicants, up from 12% in 1984. This trend, and the high caliber of students entering our Ph.D. program, reflects an increasing awareness by potential doctoral students of the quality of the UNM Geology faculty and facilities. One of our Ph.D. students, Chris Menges, received one of the five University Challenge Assistantships awarded for 1984-1985.

Our current (Spring, 1985) graduate student population is 75, nearly the maximum that the department can accommodate in terms of space within Northrop Hall and reasonable faculty-student ratios. Of these, 20 are in the final stages of completing theses and dissertations and 55 are taking full or nearly full-time course or course plus thesis loads.

Table 1: DEPARTMENT OF GEOLOGY - SUMMARY OF GRADUATE APPLICANT DATA FOR: FALL, 1984

A. Applicants to Graduate Program	Male	Female	TOTAL	Minority	Foreign	Total PhD	Total MS
Accepted	44	13	57	0	1	7	50
Not Accepted	117	33	150	3	9	15	135
TOTALS	161	46	207	3	10	22	185
Additonal Incomplete Applications			81				
TOTAL APPLICANTS			288				
Total Enrolled	11	3	14	0	1	4	10

B. Financial Aid Data (Assistanships and Fellowships)			
Aid Offered	10	3	13
Aid Accepted	5	2	7
% Accepting our offer	54%		

C. Graduate Record Exam Data

	Verbal	Quantiative	Analytical	Advanced: Geology	GPA
a) Accepted applicants					
Average raw score	607	677	628	676	3.50 (BS)
Average percentile	79	81	---	81	3.66 (MS)
b) Applicants not accepted					
Average raw score	518	600	563	585	3.00 (BS)
Average percentile	60	63	---	51	3.39 (MS)

Table 2: DEPARTMENT OF GEOLOGY - SUMMARY OF GRADUATE APPLICANT DATA FOR: SPRING, 1985

A. Applicants to Graduate Program	Male	Female	TOTAL	Minority	Foreign	Total PhD	Total MS
Accepted	4	2	6	0	0	1	5
Not Accepted	19	0	19	0	2	4	15
TOTALS	23	2	25	0	2	5	20
Additional Incomplete Applications	5	2	7	0	1	1	6
TOTAL APPLICANTS	28	4	32				
Total Enrolled	2	0	2	0	0	0	2

B. Financial Aid Data (Assistantships and Fellowships)

Aid Offered	0	1	1
Aid Accepted	0	0	0
% Accepting our offer	0%		

C. Graduate Record Exam Data and Grades

	Verbal	Quantiative	Analytical	Advanced: Geology	GPA
a) Accepted applicants					
Average raw score	630	662	635	756	3.49
Average percentile	80	76	---	94	
b) Applicants not accepted					
Average raw score	474	591	504	625	2.99
Average percentile	50	61	---	63	

Table 3: DEPARTMENT OF GEOLOGY - SUMMARY OF GRADUATE APPLICANT DATA FOR: FALL, 1985

A. Applicants to Graduate Program	Male	Female	TOTAL	Minority	Foreign	Total PhD	Total MS
Accepted	31	14	45	--	--	9	36
Not Accepted	73	31	104	3	9	18	86
TOTALS	104	45	149	3	9	27	122
Additional Incomplete Applications	78	25	103				
TOTAL APPLICANTS	182	70	252				
Total Enrolled	Available August, 1985						

B. Financial Aid Data (Assistantships and Fellowships)

Aid Offered	11	6	17
Aid Accepted	2	1	3
% Accepting our offer	18%		

C. Graduate Record Exam Data and Grades

	Verbal	Quantiative	Analytical	Advanced: Geology	GPA
a) Accepted applicants					
Average raw score	585	651	610	667	BS=3.44
Average percentile	78	74	---	79	MS=3.67
b) Applicants not accepted					
Average raw score	500	601	551	584	BS=3.04
Average percentile	56	63	---	52	MS=3.48

Table 4. DATA ON APPLICATIONS TO GEOLOGY DEPARTMENT GRADUATE PROGRAM, 1981-1985

	Spring, Fall 1981	Spring, Fall 1982	Spring, Fall 1983	Spring, Fall 1984	Spring, Fall 1985
Completed Applications	106	161	272	234	174
Incomplete Applications	48	111	83	89	110
TOTAL APPLICATIONS	154	272	355	323	284
Total Applicants Admitted to Program	70	100	130	68	51
% of Total Applicants Admitted	45%	37%	37%	21%	18%
Number Enrolled	18	26	34	20	N.Av
% of Accepted Applicants Who Enrolled	26%	26%	26%	29%	N.Av

Table 5. Graduate Record Exam and Grade-Point Data for Applicants ACCEPTED into Geology Dept. Graduate Program, 1981-1985 (Scores are averages for all accepted applicants)

	Fall 1981	Fall 1982	Fall 1983	Fall 1984	Fall 1985
Grade Point Average (Undergraduate)	N.A.	3.35	3.40	3.50	3.44
Grade Point Average (Graduate)	N.A.	3.77	3.78	3.66	3.67
Graduate Record Exam Scores					
Verbal (Percentile)	66	69	76	79	78
Quantitative (Percentile)	77	78	83	81	74
Analytical (Raw score)	608	608	610	628	610
Geology Advanced Exam (Percentile)	73	67	76	81	79

CORPORATE MATCHING CONTRIBUTIONS TO FELLOWSHIP FUND

Atlantic Richfield

Chevron

Conoco, Inc.

Gulf Oil Foundation

Shell Companies Foundation

Western Electric Fund

GEOLOGY DEPARTMENT FUND

Exxon

Phillips Petroleum

VII: GEOLOGY ALUMNI FELLOWSHIP FUND CONTRIBUTORS 1984-1985

John B. Anderson
Orin Anderson
Harry O. Ash
Julia Smith Berger
Stephen L. Bolivar
Bruce A. Black
Frederick D. Busche
Rufus Carter
Elaine Castillo-Smith
James W. Caylor
William Chenowith
Alan Dahlstrand
Rodney C. Ewing
James R. Ezell
Thomas A. Fitzgerald
George H. Fullas
David B. Givens
Harry J. Graff
Jeffrey A. Grambling
Patrick J. Gratton
David Jagnow
James S. Jameson
Terri Kasten
Cornelis Klein
Elizabeth Campbell Knapp
David Kraig
John G. Kuhn
Jean LaPaz
Moon J. Lee
Mary Leonard
Robert J. Leonard
Bill Lovejoy
James Lee Martin
DeWayne A. Miller, Jr.
David Paffett
Jared M. Potter
Bodie C. Pryor
Susan M. Rhoades
William L. Shaffer
Ralph G. Stevenson, Jr.
John M. Stone
Lawrence H. Wagner
Alexander A. Wanek
Carol Spencer Wolcott
Lee and Katheryn Woodward

NO 1959

The Annual Report of the Institute of Meteoritics
July 1, 1984 to June 30, 1985

Klaus Keil, Director

Institute of Meteoritics
Department of Geology
University of New Mexico
Albuquerque, New Mexico 87131, USA

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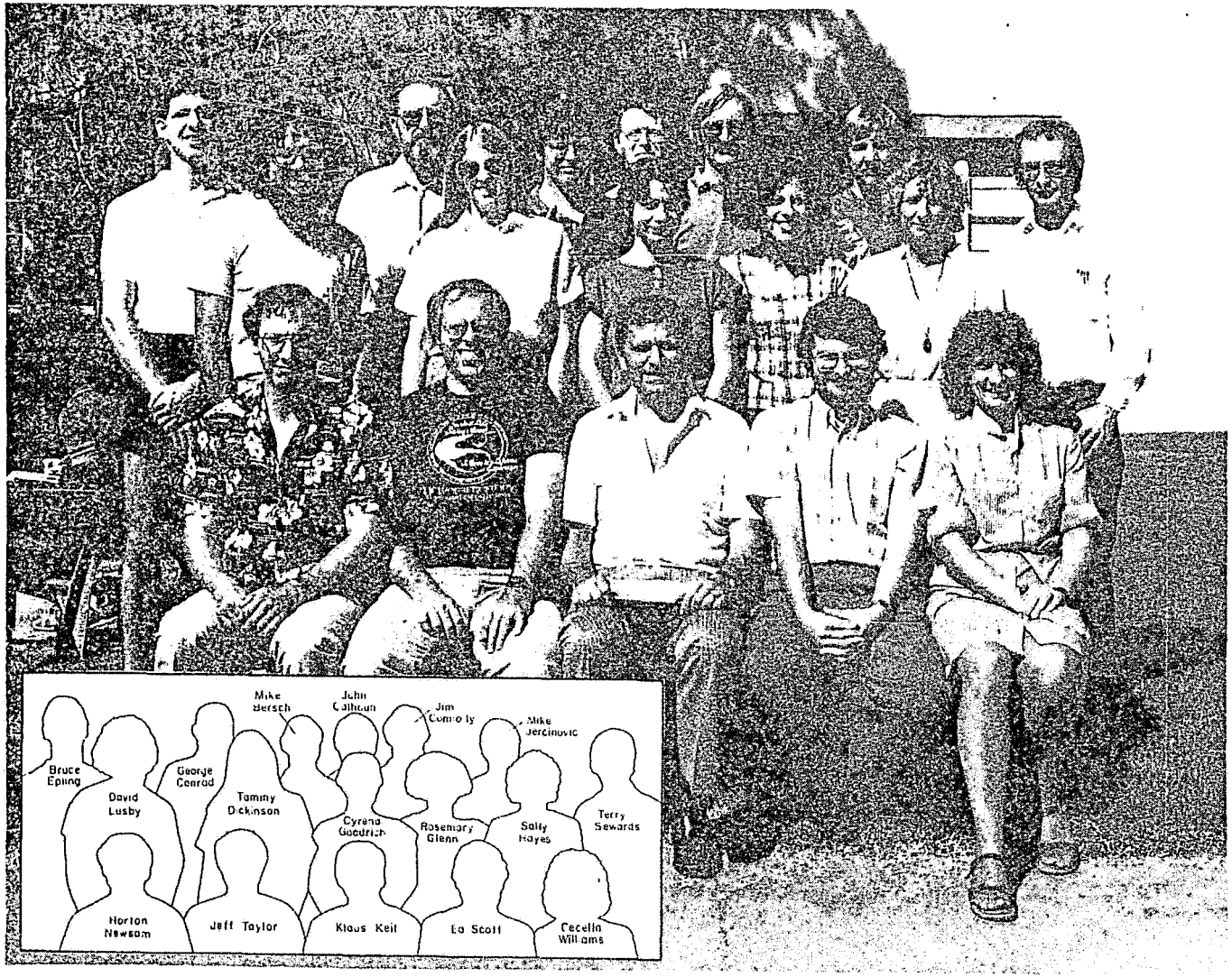
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3. General Departmental Information

The Institute of Meteoritics, founded in 1944 (one of the oldest institutions of its kind in the world), continued to develop vigorously during the report period as one of the leading centers in research and teaching of Meteoritics, Cosmochemistry and Planetary Sciences. Staff and students of the Institute devoted a considerable amount of time and effort to organization, planning and running of the Meteoritical Society Meeting which was held on the Univesity of New Mexico Campus, July 29 - August 2, 1984. This meeting was co-sponsored by the University's Institute of Meteoritics and Department of Geology, the Lunar and Planetary Institute, Houston, Texas, with additional support from Los Alamos National Laboratory. Over 175 talks were presented

in two concurrent sessions, and approximately 350 scientists and guests from all over the world participated in the meeting.

Under the leadership of Dr. Horton E. Newsom (a recently-appointed Research Scientist in the Institute of Meteoritics), a neutron activation laboratory was established in the Institute of Meteoritics and Department of Geology. This laboratory will eventually be available for analytical work, mostly of trace elements, by all Department of Geology and Institute of Meteoritics staff and students. The laboratory is capable of instrumental and radiochemical neutron activation analysis of geological samples. Development of the facilities was assisted by Tammy Dickinson (graduate student). The following equipment was designed and built or obtained in the last year: high- and low-energy intrinsic germanium detectors and associated electronics, steel holders for the two detectors and their lead shielding, two sample storage cabinets, liquid nitrogen storage dewar, lead shield for hood, surge protectors for electronic equipment, 150 lead bricks, sample irradiation vials, geochemical reference samples, glassware for radiochemical procedures, miscellaneous radiation safety equipment, radioactive gamma-ray reference standards, steel stand for lead storage cave in radiochemistry lab, etc. The computer interface between the Canberra multichannel analyzer and the IBM 9000 computer was established with the help of Dr. William Courtney (IBM) during three separate visits. The spectra processing programs of Dr.Phil Baedecker (U.S.G.S.) and H. Kruse (Max-Planck Institut, Mainz) were installed on the IBM 9000 computer. A personal editor program and the basic programming language for the IBM 9000 were installed. A radioactive materials permit from the University was obtained. Use of the Los Alamos National Laboratories Omega West Nuclear Reactor was negotiated, and the first test runs with the entire system were accomplished.

The major research, teaching and public service activities of the Institute during the report period may be summarized as follows:

3.1 Research

Research activities of staff and students of the Institute of Meteoritics cover a wide range of topics, mostly aimed at understanding of the origin and early history of our solar system and the evolution of the planets. Our research during the report period has resulted in the publication of thirty-five scientific articles in major national and international journals (see 4.4.1, #s 1-35, of this Report), as well as in the publication of twenty-two abstracts of papers presented at national and international conferences (see 4.4.2, #s 36-57). During the report period, fifteen papers were in press or were submitted for publication to major reviewed journals (see 4.4.3, #s 58-72). Furthermore, five abstracts were submitted for publication or are in press (see 4.4.4., #s 73-77). In addition, staff and students presented the results of their research in the form of forty-three professional papers at national and international meetings (see 4.4.5, #s 78-120). The extensive involvement of students in original research projects in the Institute of Meteoritics is particularly important for their education and advanced training. Specifically, students were six times senior authors and six times co-authors of major scientific articles; five times senior authors of abstracts; presented eleven professional talks and co-authored two professional talks before national and international meetings. Staff members of the Institute were on forty-seven professional travel assignments in this country and abroad (see 4.2) and students were on eight such assignments. Note that all these trips were paid for by funds provided by outside funding agencies through grants and contracts.

We continued to be very successful in attracting research grants and contracts to the Institute of Meteoritics in support of the research activities of staff and students. During the report period, grants and contracts totalling $823,518.00 were in effect. Funding came from the National Aeronautics and Space Administration, The National Science Foundation, and Sandia National Laboratories.

Our research activities attracted many foreign and domestic researchers to the Institute of Meteoritics for the purpose of short-term study, research and lectures. These were:

1. Dr. J. Berkley, Dept. of Geology, State University of New York, Fredonia, N.Y. July 5 - August 8, 1984.
2. A. Bischoff, Dept. of Mineralogy and Petrology, University of Munster, Munster, West-Germany. July 20 - August 20, 1984.
3. Dr. P. Coleman, Dept. of Geophysics and Planetary Physics, University of California, Los Angeles, California. Aug.23, 1984.
4. F. Curateon, Tucson, Arizona. Sept. 4, 1984.
5. Dr. J. Dasch, Dept. of Geology, Oregon State University, Corvallis, Oregon. September 18-19, 1984.
6. J. McKinley, Hanford Operations, Hanford, Washington. November 19-21, 1984.
7. Dr. Rita Beebe, Dept. of Astronomy, New Mexico State University, Las Cruces, New Mexico. November 30, 1984.
8. Dr. J. Berkley, Dept. of Geology, State University of New York, Fredonia, New York. January 2-16, 1985.
9. Dr. K. DeNault, Dept. of Geology, University of Northern Iowa, Cedar Falls, Iowa. January 7 - May 30, 1985.
10. Dr. L. Cabri, Canadian Geological Survey, Ottowa, Ontario, Canada. February 22, 1985.
11. Dr. Tom McCord, Planetary Geosciences Division, Hawaii Institute of Geophysics, Honolulu, Hawaii. March 6-8, 1985.
12. Dr. Jacques Danon, Centro Brasileiro de Pesquisas Fisica, Rio de Janeiro, Brazil. April 8-11, 1985.
13. Dr. Bevan French, NASA, Washington, D.C. April 9-10, 1985.
14. Dr. Lee Radziemsky, Department of Astronomy, New Mexico State University, Las Cruces, New Mexico. April 26, 1985.
15. Dr. Alfredo San Miguel, Department of Geology, University of Barcelona, Barcelona, Spain. April 30 - May 25, 1985.
16. Dr. Alan Binder, NASA Johnson Space Center, Houston, Texas. May 3 -5, 1985.
17. Dr. E.A. King, Department of Geology, University of Houston, Houston, Texas. May 13-16, 1985.
18. G. Huss, American Meteorite Laboratory, Denver, Colorado. June 26, 1985.

Research of staff and students of the Institute of Meteoritics as well as of visiting scholars was also presented in a series of Brown Bag Seminars of the Institute of Meteoritics, as follows (names of student speakers are underlined):

1. Dr. Cyrena A. Goodrich (IM): Ureilite petrogenesis: clues from a graphite-and-metal-bearing intrusive complex, Disko Island, Greenland. July 23, 1984.

2. T. Dickinson (IM): Petrology of the Palo Blanco Creek eucrite. July 23, 1984.

3. Dr. H. Newsom (IM): Evidence for the formation and the size of a metal core in the eucrite parent body. July 23, 1984.

4. Dr. K. Keil (IM): Schollhornite, $Na_{0.3}(H_2O)_1[CrS_2]$, a new mineral in the Norton County enstatite achondrite. July 23, 1984.

5. Dr. A. Ehlmann (IM): The Kendleton L4 fragmental breccia: parent body surface history. July 23, 1984.

6. Dr. E.R.D. Scott (IM): Metamorphism of type 3 carbonaceous and ordinary chondrites. July 23, 1984.

7. Dr. G.J. Taylor (IM): Metamorphism of type 3 carbonaceous and ordinary chondrites. July 23, 1984.

8. A. Bischoff (IM and Dept. of Mineralogy and Petrology, University of Munster, Munster, West-Germany): Bulk compositions of Al-rich chondrules in ordinary and carbonaceous chondrites: variations and similarities. July 25, 1984.

9. A. Bischoff (IM and Dept. of Mineralogy and Petrology, University of Munster, Munster, West-Germany): Perovskite-hibonite-and spinel-bearing refractory inclusions and Ca-Al-rich chondrules in enstatite chondrites. July 25, 1984.

10. Dr. H.E. Newsom (IM): Hydrothermal alteration of suevite impact ejecta at the Ries meteorite crater, F.R. Germany. July 25, 1984.

11. Dr. W. Klock (Max-Planck-Institute of Chemistry, Mainz, West-Germany: Trace elements in native iron from Disko. July 25, 1984.

12. Dr. J. Dasch (Dept. of Geology, Oregon State University, Corvallis, Oregon): New isotopic data of rocks from the Moon and from Greenland. September 18, 1984.

13. Dr. G.J. Taylor (IM): What were the eariest lunar differentiation events? October 5, 1984.

14. Dr. H. Newsom (IM): Constraints on the origin of the Moon from molybdenum and other siderophile elements. October 5, 1984.

15. Dr. H. Newsom (IM): Ge abundance in the lunar mantle and implications for the origin of the Moon. October 5, 1984.

16. Dr. Cyrena A. Goodrich (IM): Is phosphorous predictably incompatible in igneous processes? October 5, 1984.

17. Dr. G.J. Taylor (IM): Lunar science from a Moon Base: answering basic questions about planetary science. October 10, 1984.

18. Drs. G.J. Taylor and Cyrena A. Goodrich (IM): A discussion on the origin of the Moon. October 19, 1984.

19. Dr. J.G. Brush (Dept. of History, University of Maryland): Theories of the origin of the solar system. October 26, 1984.

20. Dr. H. Newsom (IM): Still another discussion of the origin of the Moon: Siderophile element constraints and the implications of primitive material in the Moon. Nov. 12, 1984.

21. Dr. Cyrena A. Goodrich (IM): The role of carbon in ureilite petrogenesis. November 13, 1984.

22. Dr. Lusby (IM): Lithifications of meteoritic breccias -- problems, prospects and implications. November 30, 1984.

23. Dr. H. Newsom (IM): Did Earth's core grow through geological time? March 5, 1985.

24. Dr. Cyrena A. Goodrich (IM): Ion microprobe analysis of REE in phosphates in the apatite-rich clast from ALHA81005. March 5, 1985.

25. Tammy L. Dickinson (IM): A possible test of the impact theory for the origin of the Moon. March 5, 1985.

26. Dr. E.R.D. Scott (IM): Nature and evolution of unmetamorphosed parent material of types 4 - 6 ordinary chondrites. March 5, 1985.

27. D. Lusby (IM): Chemically anomalous objects in types 4-6 ordinary chondrites: Evidence for ubiquitous brecciation following metamorphism. March 5, 1985.

28. Dr. Cyrena A. Goodrich (IM): Minor elements in ureilites: Evidence for reverse fractionation and interstitial silicate liquids. March 5, 1985.

29. Dr. I. MacKinnon (Dept. of Geology, UNM): Auger spectroscopy of stratospheric particles: the influence of aerosols on interplanetary dust. March 5, 1985.

30. Dr. T.B. McCord (Planetary Geosciences Division, Hawaii Institute of Geophysics, Honolulu, Hawaii): Asteroids: What stuff are they? March 6, 1985.

31. Dr. P. Keaton (Los Alamos National Laboratory): A manned Mars mission study. Jointly with Dept. of Physics and Astronomy, UNM. March 22, 1985.

32. Dr. J. Danon (Centro Barasileiro de Pesquisas Fisica, Rio de Janeiro, Brazil): Order-disorder phenomena in iron-nickel alloys of meteorites. April 8, 1985.

33. Dr. B. French (NASA Headquarters, Washington, D.C.): Catastrophy and controversy: the Sudbury impact structure, Canada. April 9, 1985.

34. D. Szuwalski (IM): Impact melt rocks from Asteroids. April 26, 1985.

35. B. Epling (IM): The Kagangari meteorite. May 2, 1985.

36. Dr. A. Binder (NASA Johnson Space Center, Houston, Texas): Mare basalt genesis. May 3, 1985.

37. Dr. W. Elston (Dept. of Geology, UNM): Speculations about Venus. May 10, 1985.

38. Dr. G.J. Taylor (IM): Breaking asteroids and putting them back together again. May 17, 1985.

The outstanding electron microprobe and scanning electron microprobe facilities in the Institute of Meteoritics and Department of Geology were made available for use to the following individuals and institutions outside our own Department, and our personnel instructed these users in the use of the equipment.

1. Dr. A. Ehlman, Dept. of Geology, Texas Christian University, Fort Worth, Texas.

2. Institute for Explosive Research, New Mexico Institute of Mining and Technology, Socorro, New Mexico.

3. Dr. P. Kyle and students, Dept. of Geology, New Mexico Institute of Mining and Technology, Socorro, New Mexico.

4. Dr. K.J. DeNault, Dept. of Earth Sciences, University of Northern Iowa, Cedar Falls, Iowa.

5. Dr. J.L. Berkley, Dept. of Geology, State University of New York, Fredonia, New York.

6. Dr. W.A. Gross, College of Engineering, University of New Mexico, Albuquerque, New Mexico.

7. Dr. Charles Stein, Albuquerque, New Mexico.

8. Signetics Corporation, Albuquerque, New Mexico.

9. Mr. A. Bischoff, Dept. of Mineralogy and Petrology, University of Munster, Munster, West-Gemany.

10. Mr. J. Evans, College of Business Administration, University of New Mexico.

11. Sperry Corporation, Albuquerque, New Mexico.

Research in the Institute of Meteoritics, during the report period, concentrated in a number of major areas, all of which are supported by outside funds. Brief summaries of our more significant contributions follow:

Studies of extraterrestrial materials

We study meteorites and lunar samples to better understand solar nebular processes and the metamorphic, igneous, and impact processes that affected the planetary bodies that accreted from the solar nebula. We pursue these goals with petrologic studies of extraterrestrial materials and some terrestrial analogs using optical microscopy, electron microprobe and neutron activation analysis and scanning and transmission electron microscopy. We also collaborate with other investigators having other expertise to obtain isotopic, rare gas, and age data.

3.1.1 Formation and Evolution of Chondrites and Their Parent Bodies (NASA Supported)

I. Origin and evolution of primitive components in chondrites

We have carried out detailed petrologic studies of chondrules, matrices and other components in chondrites to distinguish secondary metamorphic and shock features from primary characteristics. In this way we learn more about conditions in the solar nebula. Specific studies include the following:

a) Characterization of fine-grained objects that have compositions and textures intermediate between those of chondrules and primitive matrix material.

b) We study minor elements in olivine and pyroxene in type I and II chondrules to elucidate their formation conditions.

c) Detailed electron microscopic study of matrix materials in Tieschitz help to elucidate the origin and nature of white matrix and network-textured objects.

d) Petrologic study of the unique type 3 chondrite, Kakangari, allows tests of our hypothesis that some chondrules formed from matrix-like material. Comparative studies of E3 chondrites are carried out to characterize the diversity of environments in which chondrite components formed.

e) We carry out detailed petrologic and trace element studies of metal, silicates and clasts in Bencubbin and Weatherford. These meteorites lack chondrules but have sufficient primitive characteristics, including planetary gases, to warrant detailed comparisons with type 3 chondrites.

II. Nature of metamorphism and brecciation in chondrite parent bodies

We study metamorphosed and brecciated chondrites to understand more about the accretion of asteroids, time scales for accretion and metamorphism, and the stratigraphy of chondrite parent bodies. By comparing metamorphic effects and brecciation in C,O, and E chondrites we hope to elucidate the planetary processes that affected their parent bodies.

Comparison of Allan Hills A77156/A77295, which is the only E chondrite known to contain solar-wind gases, with other type 3-4 chondrites helps to understand metamorphism and brecciation in the E chondrite parent body.

We suspect that many types 3 and 4 ordinary chondrites are breccias of materials that were assembled after planet-wide metamorphism. We carry out

SEM and optical microscopic studies of these rocks to allow us to verify such breccias and understand how they are lithified.

III. Petrologic studies of undescribed meteorites

By characterizing undescribed meteorites, we hope to discover new kinds of meteorites, new types of clasts and new sources of material for our other studies. For example, our studies of new meteorites from Roosevelt Co., New Mexico led to our proposal that many apparently unbrecciated type 4-6 ordinary chondrites are breccias of materials with diverse metamorphic histories. We also discovered a new low-shock ureilite, RC 027, which contains useful clues to ureilite genesis. We plan more studies of meteorites in the Oscar Monnig collection at Texas Christian University with A. Ehlmann, various collections in Spain and newly discovered meteorites from New Mexico and Antarctica.

3.1.2 Origin and Evolution of Differentiated Meteorites (NASA Supported)

I. Formation and history of ureilites and their parent body

Our studies of ureilites indicate that these unusual rocks crystallized from a silicate magma containing graphite. Recent evidence includes the presence of cumulus graphite crystals, spheres consisting of cohenite, iron metal, and troilite trapped in olivine, and the existence of mineral compositional trends among ureilites which show that iron metal must have precipitated from the magma. Furthermore, we found trapped, intercumulus silicate liquid in Roosevelt County 027, which might explain the unusual V-shaped REE patterns observed among ureilites. We continue our petrologic studies on these interesting meteorites, with emphasis on searching for trapped liquids in other ureilites and characterizing the components in the fragmental breccias, Nilpena and North Haig. We also now have enough data to begin to address key issues in ureilite petrogenesis, e.g., the source of the carbon, why these

seemingly igneous rocks contain trapped noble gases, the details of their origin and shock histories, and stratigraphy of their parent body or bodies.

II. Enstatite achondrites

Enstatite achondrites are composed almost entirely of enstatite, though other phases also occur. These other phases hold key information about the origin of these meteorites. For example, Norton County contains igneous-textured clasts of enstatite, diopside (both with exsolution lamellae), and taenite (whose compositions indicate a cooling rate of a few degrees per million years). This indicates a more complex history for the enstatite achondrite parent body than one might deduce from a superficial examination of enstatite achondrites. We are putting the finishing touches on our study of Norton County. We are also analyzing dark clasts in Khor Temiki, a gas-rich enstatite achondrite. There is evidence that some of these clasts are exceptionally rich in REE. This may be important in unraveling the origin of enstatite achondrites and their parent body. Finally, we are completing a comparison of enstatite chondrites and achondrites. This work demonstrates that enstatite achondrites did not form from enstatite chondrites.

3.1.3 Origin and Evolution of the Moon (NASA Supported)

I. Formation of the lunar highlands crust

Pristine nonmare rocks provide the most direct information about the igneous events that constructed the lunar highlands crust. Several groups of pristine rocks, including ferroan anorthosites and Mg-suite norites and troctolites, have been identified, but we do not yet know how these relate to one another or to the lunar magma ocean. We also do not know much about the nature of the source rocks that partially melted to give rise to the parent magmas of pristine rocks or how processes such as fractional crystallization or assimilation affected their compositions.

Our research is designed to elucidate the origin of pristine rocks. We are taking a two-pronged attack. First, we are making a systematic study of minor element concentrations in mafic minerals in a large suite of pristine rocks. We will interpret the data in light of experimental data on element partitioning and improved knowledge of petrologic processes. Second, we are continuing to search for new types of pristine rocks, emphasizing Apollo 14 breccias (e.g., 14304) and coarse fines (2-4 mm).

II. Metamorphism and brecciation in the highlands crust

Breccias are not only storehouses of pristine rocks. They also provide information about the impact and thermal history of the lunar crust, about the homogeneity of the crust, and about the provenance of pristine rocks. We will continue our studies of breccias, with emphasis on 14304 and on lunar meteorites. We are also involved in a study with C. Pieters of the spectral properties of lunar highland breccias, which is intended to develop a better understanding of remote sensing data.

Granulitic breccias provide information about the Moon's thermal history and about the earliest lithologies that intruded the crust. The physical setting in which their metamorphism occurred is obscure. To obtain a better understanding of early lunar metamorphism, we intend to make detailed petrologic studies of a variety of granulitic breccias. This work meshes with our studies of chondrite metamorphism.

A great deal of insight into the nature of impact processes has been obtained from studies of terrestrial craters. We intend to devote a small fraction of our efforts to studying the mechanisms of emplacement of impact depositis at the Ries Crater, West Germany, with special attention to the role of fluidization. This work, particularly those aspects addressing the alteration

of suevite by hydrothermal activity associated with the impact, bears on the formation of Martian soils.

III. Mare basalts and the nature of their source regions

Mare basalts are vital probes of the Moon's interior and of its thermal history. Because isotopic data indicate that the source regions formed when the Moon experienced its initial differentiation, mare basalts, like pristine nonmare rocks, contain information about this key event in lunar history. We will continue to study mare basalts, concentrating on those in Apollo 14 breccias and coarse fines. Finally, we will reevaluate all models for the generation of mare basalts, paying special attention to the role assimilation might have played as mare basalt magmas migrated from their source regions to the lunar surface.

IV. Core formation in terrestrial planets, Moon and asteroids

Using theoretical and experimental methods, we will investigate geochemical aspects of core formation. The distribution and abundance of siderophile elements in earth and Moon contains information about the origin of the Moon. The differentiation of meteorite parent bodies is also being studied, which has implications for heat sources and accretionary processes in the solar nebula.

A synthesis of the siderophile (metal-loving) abundance of the silicate portion of the Moon was completed including new information about the depletion of molybdenum in the Moon. The Moon is distinctly more depleted than the Earth's mantle in the highly siderophile elements such as molybdenum, rhenium and iridium. This conclusion resolves a long-standing controversy over the abundance of siderophile elements in the Moon. The siderophile element depletions indicate that the Moon must have an iron metal core. The

size of the metal core depends on the initial composition of the Moon and its mode of origin.

A new study was begun to investigate the existence and origin of siderophile element variations in the Moon. The results could have important implications for the origin and evolution of the Moon. The presence of significant variations that could be tied to the existence of primitive reservoirs in the Moon, for example, would argue against one of the currently popular theories for the origin of the Moon, the big impact theory.

The process and timing of core formation in the Earth has important implications for the evolution of the Earth and also the origin of the Moon. A study of one aspect of this problem, now being completed, has investigated the theory that the lead isotope data for ocean islands and mid-ocean ridge basalts can be explained by continuing core formation over geologic time. This process has also been called upon to explain the difference in FeO contents between the Earth and Moon. The results indicate that no evidence for extended core formation exists and another explanation for the lead isotope variations is required, such as recycling of oceanic crust.

V. Origin of the Moon

Understanding how the Moon formed is a goal of our lunar research. In addition to trying to understand lunar siderophile abundances and core formation, we design our research on lunar samples to develop constraints on early lunar history. For example, we are trying to place limits on the depth of the lunar magma ocean.

A new project that will address siderophile abundances in the Moon is to measure Ge concentrations in a variety of pristine mare and highland rocks. Because Ge is not greatly fractionated during igneous processes, it can be used to monitor mantle processes and heterogeneities. Germanium abundances

of lunar rocks are sparse, and additional data, obtained in our new radiochemical neutron activation analysis laboratory, will give us insight into early lunar evolution and mare basalt genesis.

VI. Petrologic nature of lunar meteorites

We have continued our studies of lunar meteorites as they become available. The results will be interpreted in the context of our other lunar studies, especially the nature of pristine rocks and granulitic breccias. We now have samples of all four meteorites ejected off the Moon by impact that so far have been recovered in Antarctica by U.S. and Japanese expeditions. One major goal of our research is to find out if these rocks were ejected off the Moon by one or more impacts.

3.1.4. The Martian Soil and Climate (NASA Supported)

The possible significance of hydrothermal alteration of impact melt deposits is being investigated by an ongoing detailed study of the impact deposit (suevite) at the Ries meteorite crater, West Germany. Hydrothermal alteration of impact deposits could be a significant source of the Martian soil.

A new theory has been developed for the origin of small Martian valley networks, with important implications for the evolution of the martian atmosphere. Many valley networks are related to impact structures and may have originated through the action of hot springs located along the fringes of slowly cooling impact melt deposits. The probably widespread operation of impact-related hydrothermal springs early in Mars' history suggests that an early dense atmosphere is not necssary to explain the valley formation.

Studies of terrestrial materials

3.1.5. Petrologic and Geochemical Investigations in Support of Engineering

and Design Studies for a High-level Nuclear Waste Repository in Silicic Volcanic Tuff, Nevada Test Site (Supported by Sandia Natl. Laboratories).

The petrography, petrology and geochemistry of any medium considered for storage of commercial high-level nuclear waste (CHLW) are indirectly important parameters in repository design and construction. Thermomechanical and hydrologic properties of the host rock are engineering properties of prime concern; host-rock mineralogy, texture and fabric are important in understanding variations in these properties. A thorough understanding of the geochemistry of the emplacement medium is critical in understanding its repsonse to chemical changes and thermal excursions imposed by emplacement of CHLW.

Sandia National Laboratories (SNL) in cooperation with the U.S. Geological Survey and Los Alamos National Laboratory, has been contracted by the Department of Energy (DOE) to oversee site selection, design and construction of a CHLW repository in silicic volcanic tuff in the Nevada Test Site (NTS) region about 90 miles northwest of Las Vegas. Work by SNL for the past several years has focused on two locations at NTS, U12g-Tunnel (G-Tunnel) and Yucca Mountain. Our petrologic work in support of G-Tunnel thermomechanical tests has been substantially completed, and a summary report on tuffaceous media in which tests are being completed, is in press. Yucca Mountain, located about 21 miles southwest of G-Tunnel, is being considered by DOE as one of several potential locations for contruction of a CHLW repository in the continental U.S. SNL, in cooperation with the U.S. Geological Survey and Los Alamos National Laboratory, is involved with siting the repository and is the prime contractor for design and construction. We provide petrologic and geochemical data on outcrop and core samples in

support of physical property, thermal and mechanical tests on rocks from Yucca Mountain, and during this year have completed a cooperative model study of welded lithophysal tuff with SNL personnel which integrates petrology and bulk properties to evaluate mechanical test results. Results of this study were presented at the Fall 1984 American Geophysical Union meeting in San Francisco, and will be submitted for publication in the Journal of Geophysical Research. A similar study of welded nonlithophysal tuff is in progress. A new project has just been begun to develop a model which will allow prediction of whole-rock heat capacities in devitrified, zeolitic and glassy tuffs, based on petrologic and geochemical data. Over the past year, we have provided some assistance to Sandia personnel in need of geologic data on specific samples, and study of specific petrologic problems related to the origin of lithophysae and mineralogy of the Topopah Spring Member are continuing. We have also intitiated discussions with UNM, Sandia and Los Alamos National Laboratories staff working in this field, in the hope that further joint research projects may develop.

3.1.6. Mineralogy of Salt Samples from the WIPP Site (Supported by Sandia National Laboratories)

Halite samples from the Salado Formation, and anhydrite, gypsum, argillaceous halite, dolomite and siltstone/mudstone samples from the Rustler Formation were studied to determine their overall mineralogical composition. Clay minerals were studied in detail to determine mineral species, composition, structure, interstratification, degree of ordering, and ratios of mineral species in interstratified clays. This information was obtained through petrographic, chemical and X-ray diffraction analyses. Future work will include SEM, TEM and EMX analyses of Rustler samples. The data will be used to describe the

origin and diagenetic history of the Rustler Formation, as well as adding to our knowledge about clay minerals in evaporite sequences.

3.2. Teaching

Teaching activities of the Institute of Meteoritics staff concern formal classes in Physical Geology (101L), Earth Resources (211), Planetary Geology (265), Mineralogy I (311L), Petrography of Opaque Ores (512L), Meteoritics and Cosmochemistry (513L), and Electron Microprobe Analysis and Scanning Electron Microscopy (518L). In addition, many arranged courses were given to certify Department of Geology and Institute of Meteoritics faculty, staff and students as well as visiting scholars, as operators of the electron microprobe and the scanning electron microscope. A great deal of emphasis was given to the direction and supervision of graduate student research projects, problems courses, theses and dissertations, as well as the publication of these research reults (see 4.4 of this Report).

During the report period, the following graduate and undergraduate students carried out research in the Institute of Meteoritics and were supported by NASA grant and other contract funds:

Graduate Students

1. M.G. Bersch (NASA)
2. B. Epling (NASA)
3. Tammy L. Dickinson (NASA)
4. W. Farrand (NASA)
5. Rosemary Glenn (Sandia)
6. M.J. Jercinovic (NASA)
7. D. Lusby (NASA)
8. J.P. McKinley (Dept. of Energy)
9. S.I. Recca (NASA)

10. D. Szuwalski (NASA)

11. G. Sarkar (Sandia)

12. T. Sewards (Sandia)

13. Cecilia V. Williams (NASA)

Undergraduate Students

1. Anne Tomasi (NASA)

2. M. Gabriel (NASA)

During the report period, Dr. Cyrena A. Goodrich (Ph.D., Cornell University, Ithaca, N.Y.) was in residence in the Institute of Meteoritics as a post-doctoral fellow (NASA supported).

3.3. Public Service

Public service activities of members of the staff of the Institute of Meteoritics as well as students are devoted to maintenance and enlargement of the Institute's outstanding collection of meteorites and to making research specimens available to Institute members as well as colleagues in the USA and abroad. Many special, private showings of the Collection, the Museum, as well as lunar samples were given, frequently on weekends and after-duty hours. Furthermore, many public lectures on meteorites, lunar geology and high-level nuclear waste disposal were given in the State of New Mexico, the USA and abroad. Finally, many rocks suspected to be of meteoritic origin and brought to the Institute by the public were analyzed without charge, and major efforts were made to educate the interested public in the recognition and recovery of meteorites (see 4.9 of this Report).

4. Composite of Individual Biographical Supplements

4.1 Advanced Studies

H.E. Newsom

1. Attended radiation safety course, University of New Mexico, Oct., 1984.

M.G. Bersch

1. Continued progress towards Ph.D. degree in Geology with research in Institute of Meteoritics on "Major and minor element distributions in pyroxenes and olivines from pristine lunar highland rocks".

Tammy L. Dickinson

1. Continued progress towards Ph.D. degree in Geology with research in Institute of Meteoritics on "Germanium abundance in lunar basalts: did the Moon form totally molten?"

Rosemary Glenn

1. Continued progress towards Ph.D. degree in Geology with research in Institute of Metoritics on "Origin and post-depositional history of the Upper Permian Rustler Formation, near Carlsbad, New Mexico".

M.J. Jercinovic

1. Continued progress towards Ph.D. degree in Geology with research in part in the Institute of Meteoritics on "Palagonitization of subglacial volcanics from British Columbia and Iceland".

D. Lusby

1. Continued progress towards M.S. degree in Geology with research in Institute of Meteoritics on "Lithification of type 3 and 4 ordinary chondrites and achondrite regolith breccias".

J.P. McKinley

1. Continued progress towards Ph.D. degree with research in part in Institute of Meteoritics on "Low-temperature alteration of Columbia River basalt".

S.I. Recca

1. Continued progress towards M.S. degree in Geology with research in Institute of Meteoritics on "Fine-grained millimeter-sized objects in type 3 ordinary chondrites and their relation to chondrules and matrix".

Cecelia V. Williams

1. Continued progress towards M.S. degree in Geology with research in Institute of Meteoritics on "Cooling rates of clasts in ordinary chondrite regolith breccias: Implications for parent body history".

4.2 Sabbaticals, Leaves of Absence, Summer Teaching Elsewhere, Travel, etc.

Klaus Keil

1. Taos, New Mexico. Presented invited talk at German Summer School, Department of Modern and Classical Languages, University of New Mexico. June 29 - July 1, 1984.

2. Washington, D.C. Attended meeting of NASA Committee on Minority Researchers, NASA Headquarters. August 15-17, 1984.

3. Carlsbad, New Mexico. Studied core at the WIPP site and selected samples for study. October 11-12, 1984.

4. Boulder, Colorado. Presented talk in Department of Geology, University of Colorado. October 31, 1984.

5. San Francisco, California. Chaired meeting of the Lunar Science Council. December 1-2, 1984.

6. La Jolla, California. Attended H.E. Suess Symposium at the University of California and presented invited talk. December 12-15, 1984.

7. Honolulu, Hawaii. Attended PacChem 1984 Conference and presented invited paper. December 16-21, 1984.

8. Santa Fe, New Mexico. Presented talk at Los Alamos-Santa Fe German Club. January 20, 1985.

9. Houston, Texas. Attended Lunar and Planetary Science Conference, Johnson Space Center, chaired session, co-authored three talks, and attended meeting of the Lunar Science Council. March 10-15, 1985.

10. Tokyo, Japan. Attended 10th Symposium on Antarctic Meteorites, National Institute of Polar Research, and presented two invited talks. March 24 - April 2, 1985.

11. La Jolla, California. Presented invited talk at Chemistry Department, University of California. June 3-9, 1985.

12. Washington, D.C. Chaired review panel on Space Station Planetary Science Experiments, NASA Headquarters. June 12-14, 1985.

13. Los Alamos, New Mexico. Attended review panel of Institute of Geophysics and Planetary Physics, Los Alamos National Laboratory. June 19-21, 1985.

G.J. Taylor

1. Washington, D.C. Attended meeting of Lunar Base Steering Committee and attended presentation to James Beggs, NASA Administrator, July 15-17, 1984.

2. Pasadena, California. Attended meeting of Group Chiefs of the Lunar and Planetary Geoscience Review Panel, held at Caltech, August 22-23, 1984.

3. Houston, Texas. Attended meeting of the Program Committee for the Symposium on Lunar Bases and Space Activities in the Twenty-First Century, Lunar and Planetary Institute, September 16-18, 1984.

4. Kona, Hawaii. Attended and presented invited talk at Conference on the Origin of the Moon, October 12-17, 1984.

5. Houston, Texas. Attended meeting of the Lunar and Planetary Geoscience Review Panel, Lunar and Planetary Institute, October 20-27, 1984.

6. Washington, D.C. Attended and presented invited talk at Symposium on Lunar Bases and Space Activities in the Twenty-First Century, October 28-31.

7. Houston, Texas. Attended meeting of the Lunar and Planetary Sample Team, Lunar and Planetary Institute, November 15-18, 1984.

8. Washington, D.C. Gave briefing about planetary science research programs to NASA officials at NASA Headquarters, January 7-8, 1985.

9. Pasadena, California. Attended Workshop on the Lunar Geoscience Observer Mission held at the Jet Propulsion Laboratory, January 20-22, 1985.

10. Houston, Texas. Worked in Lunar Curatorial Facility, Johnson Space Center, and attended meeting of Lunar and Planetary Sample Team held at the Lunar and Planetary Institute, February 11-17, 1985.

11. Houston, Texas. Attended Sixteenth Lunar and Planetary Science Conference, Johnson Space Center, March 10-15, 1985.

12. Pasadena, California. Attended Workshop on the Lunar Geoscience Observer Mission, held at the Jet Propulsion Laboratory, April 28-30, 1985.

13. Pasadena, California. Attended Workshop on the Near-Earth Asteroid Rendezvous Mission, Jet Propulsion Laboratory, April 28-30, 1985.

14. Los Angeles, California. Presented talk at Institute of Geophysics and Planetary Physics at the University of California, Los Angeles, April 23, 1985.

15. Houston, Texas. Attended meeting of the Lunar and Planetary Sample Team, Lunar and Planetary Institute, June 7-9, 1985.

16. Santa Monica, California. Attended Workshop on the Near-Earth Asteroid Rendezvous Mission, held at the Rand Corp., and visited Chevron Oil Field Research Company, June 16-20, 1985.

E.R.D. Scott

1. Washington, D.C. Attended Antarctic Meteorite Working Group Meeting at the Smithsonian Institution, U.S. National Museum of Natural History. September 7-9, 1984.

2. Houston, Texas. Attended Program Committee meeting for the Sixteenth Lunar and Planetary Science Conference, at the Lunar and Planetary Science Institute. January 24-25, 1985.

3. Houston, Texas. Attended Sixteenth Lunar and Planetary Science Conference at the NASA Johnson Space Center. March 11-15, 1985.

4. Houston, Texas. Attended Antarctic Meteorite Working Group Meeting at the Lunar and Planetary Science Institute. March 29 - April 1, 1985.

H.E. Newsom

1. Kona, Hawaii. Attended Conference on the Origin of the Moon and presented paper. October 13-16, 1984.

2. Houston, Texas. Attended Sixteenth Lunar and Planetary Science Conference at the NASA Johnson Space Center and presented paper. March 11-15, 1985.

3. Los Alamos, New Mexico. Discussed use of the Omega West Reactor with the director Dr. Merle Bunker. Discussed neutron activation and geochemical standards with Dr. Ernest Gladney of the Environmental Surveillance Group. April 4, 1985.

4. Los Alamos, New Mexico. Discussed counting of short half-life radionuclides with staff of the Omega West reactor. June 18, 1985.

Cyrena A. Goodrich

1. Kona, Hawaii. Attended Conference on the Origin of the Moon and presented paper. October 13-16, 1984.

2. Houston, Texas. Presented invited paper at the Lunar and Planetary Institute. November 15, 1984.

3. Houston, Texas. Worked on lunar breccia 14304 at the NASA Johnson Space Center. November 16, 1984.

4. Houston, Texas. Attended Sixteenth Lunar and Planetary Science Conference at the NASA Johnson Space Center and presented two papers. March 11-15, 1985.

5. Godthabsfjord region, Greenland. Attended Workshop on the Early Archean. June 21-July 6, 1985.

G.H. Conrad

1. Bethlehem, Pennsylvania. Attended Microprobe Analysis Society Meeting at Leheigh University. August, 1984.

J.R. Connolly

1. Taos, New Mexico. Attended New Mexico Geological Society Annual Field Trip "Rio Grande Rift in Northern New Mexico." October 10-13, 1984.

2. San Francisco, California. Attended American Geophysical Union Fall Meeting, and presented paper. December 3-7, 1984.

3. Socorro, New Mexico. Attended New Mexico Geological Society Spring Meeting, and chaired session on Cenozoic volcanism. April 26-27, 1985

4. Los Alamos, New Mexico. Met with David Vaniman and others of the Los Alamos National Laboratory staff working on petrologic problems connected with the Nevada Nuclear Waste Storage Investigations. May 3, 1985.

Tammy L. Dickinson

1. Reno, Nevada. Attended Mineralogical Society of America Short Course on Micas. November 2-4, 1984.

2. Reno, Nevada. Attended Geological Society of America Meeting. November 5-8, 1984.

3. Houston, Texas. Attended Sixteenth Lunar and Planetary Science Conference at NASA Johnson Space Center and presented paper. March 11-15, 1985.

Rosemary T. Glenn

1. Carlsbad, New Mexico. Visited WIPP site and selected samples for study, and attended field trip of vicinity of WIPP site including outcrops of Permian formations. October 11-12, 1984.

2. Carlsbad, New Mexico. Performed field reconnaissance, collection of samples and photography of Rustler Formation outcrops. February 12, 1985.

3. Carlsbad, New Mexico. Performed additional field reconnaissance, collection of samples and photography of Rustler Formation outcrops. February 24, 1985.

M.J. Jercinovic

1. Iceland. Carried out field work and collected samples. July 25 - August 13, 1984.

2. Boston, Massachusetts. Attended the Materials Research Society Meeting and presented poster. November 26-30, 1984.

4.3 New Scholastic Honors, Fellowships, etc.

Klaus Keil

1. Listed in "The International Who's Who of Contemporary Achievement".

2. Listed in "International Men of Achievement."

3. Presidential Professor of Geology (endowed), University of New Mexico.

Tammy L. Dickinson

1. Received a one-year NASA Graduate Student Researchers Fellowship. May, 1985.

Rosemary T. Glenn

1. Received American Association of University Women Scholarship.

2. Received Department of Geology, University of New Mexico Scholarship.

4.4 Publications

Listed are only publications that have appeared, are in press or have been submitted during the report period. Not listed are papers that are in preparation. Since most publications of the Institute of Meteoritics are co-authored by several members of the Institute, only one list of publications is given, rather than duplicating listings on an individual-by-individual basis. Note that to draw attention to the active participation of students in research of the Institute of Meteoritics, names of student authors and speakers have been underlined.

4.4.1. Scientific Articles Published in Major National and International Reviewed Journals; Scientific Publications of the Institute of Meteoritics; as well as Books.

1. E.R.D. Scott, A.E. Rubin, G.J. Taylor and K. Keil: Matrix material in type 3 ordinary chondrites -- occurrence, heterogeneity and relationship with chondrules. Geochim. Cosmochim. Acta 48, 1741-1757, 1984.

2. A.E. Rubin and K. Keil: Size-distributions of chondrule types in the Inman and Allan Hills A77011 L3 chondrites. Meteoritics 19, 135-143, 1984.

3. J.R. Connolly, K. Keil, W.L. Mansker, C.C. Allen, J. Husler, R. Lowy, D.R. Fortney and A.R. Lappin: Petrology and geochemistry of samples from bed-contact zones in Tunnel Bed 5, U12g-Tunnel, Nevada Test Site. Sandia Natl. Laboratories, SAND 84-1060, 1-44, 1984.

4. C.A. Goodrich, G.J. Taylor, W.V. Boynton and D.H. Hill: Petrology and chemistry of hyperferroan anorthosite and other clasts from lunar meteorite ALHA 81005. Proc. 15th Lunar Planet. Sci. Conf. Part 1, J. Geophys. Res. 89, C87-C94, 1984.

5. T. Dickinson, G.J. Taylor, K. Keil, R.A. Schmitt, S.S. Hughes, and M. R. Smith: Apollo 14 aluminous mare basalts and their possible relationship to KREEP. Proc. 15th Lunar Planet. Sci. Conf., J. Geophys. Res. 90, C365-374, 1985.

6. C.A. Goodrich, G.J. Taylor and K. Keil: An apatite-rich, ferroan, mafic lithology from lunar meteorite ALHA81005. Proc. 15th Lunar Planet. Sci. Conf. Part 2, J. Geophys. Res. 90, C405-C414.

7. R.H. Price, F.B. Nimick, J.R. Connolly, K. Keil, B.M. Schwartz and S.J. Spence: Preliminary characterization of the petrologic, bulk, and mechanical properties of a lithophysal zone within the Topopah Spring Member of the Paintbrush Tuff. Sandia Natl. Laboratories, SAND 84-0860, 1-115, 1985.

8. W. Lutze, G. Malow, R.C. Ewing, M.J. Jercinovic and K. Keil: Alteration of basalt glass: implications for modelling the long-term stability of nuclear waste glasses. Nature 314, 252-255, 1985.

9. D.D. Bogard, G.J. Taylor, K. Keil, M.R. Smith and R.A. Schmitt: Impact melting and brecciation of the Cachari eucrite 3.0 G.y. ago. Geochim. Cosmochim. Acta 49, 941-946, 1985.

10. C.A. Goodrich, G.J. Taylor, K. Keil, S.J.B. Reed, W.V. Boynton and D.H. Hill: Ion microprobe analysis of REE in phosphates in the apatite-rich clast from ALHA81005. Lunar Planet. Sci. XVI, 282-283, 1985.

11. C.A. Goodrich, G.J. Taylor, K. Keil, P.H. Warren and G.W. Kallemeyn: Troctolites, aluminous mare basalts, and other clasts from 14304. Lunar Planet. Sci. XVI, 284-285, 1985.

12. D. Lusby, E.R.D. Scott and K. Keil: Chemically anomalous objects in types 4-6 ordinary chondrites: evidence for ubiquitous brecciation following metamorphism. Lunar Planet. Sci. XVI, 509-510, 1985.

13. E.R.D. Scott, G.J. Taylor and K. Keil: Nature and evolution of unmetamorphosed parent material of types 4-6 ordinary chondrites. Lunar Planet. Sci. XVI, 751-752, 1985.

14. K. Keil: Soil composition of Mars. In "Contr. to the Symp. on U.S. - European Cooperation in the Exploration of the Planetary System," Heidelberg, F.R. of Germany. Space Sci. Comm., European Sci. Foundation, 29-42, 1985.

15. A. Bischoff, K. Keil and D. Stoffler: Perovskite-hibonite-spinel-bearing inclusions and Al-rich chondrules and fragments in enstatite chondrites. Chemie der Erde 44, 97-106, 1985.

16. C.D. Byers, M.J. Jercinovic, R.C. Ewing and K. Keil: Basaltic glass analogue study. In "Argonne Natl. Lab.," Rep. ANL-84-91, 51-60, 1985.

17. A.J. Ehlmann and K. Keil: Classification of eight ordinary chondrites from Texas. Meteoritics 20, 219-227, 1985.

18. C.E. Williams, A.E. Rubin, K. Keil and A. San Miguel: Petrology of the Cangas de Onis and Nulles regolith breccias: Implications for parent body history. Meteoritics 20, 331-345, 1985.

19. A. Okada, K. Keil, B.F. Leonard and I.D. Hutcheon: Schollhornite, $Na_{0.3}(H_2O)_1[CrS_2]$ a new mineral in the Norton County enstatite achondrite. Amer. Mineral. 70, 638-643, 1985.

20. E.R.D. Scott: Pairing of meteorites found in Victoria Land, Antarctica. Proc. Ninth Symposium on Antarctic Meteorites, Mem. Natl. Inst. Polar Res. Spec. Issue No. 35, 102-125, 1984.

21. E.R.D. Scott and G.J. Taylor: Petrology of types 4-6 carbonaceous chondrites. Proc. 15th Lunar Planet. Sci. Conf., J. Geophys. Res. 90 Suppl., C699-C709, 1985.

22. E.R.D. Scott: Origins of stony-iron meteorites. Nature 311, 708, 1984.

23. C.A. Goodrich: Phosphoran pyroxene and olivine in silicate inclusions in natural iron-carbon alloy, Disko Island, Greenland -- Addendum. Geochim. Cosmochim. Acta 48, 2711, 1984.

24. C.A. Goodrich and J.M. Bird: Formation of iron-carbon alloys in basaltic magma at Uivfaq, Disko Island: the role of carbon in mafic magmas. J. Geology 93, 475-492, 1985.

25. H.E. Newsom: Molybdenum in eucrites: Evidence for a metal core in the eucrite parent body. Proc. 15th Lunar Planet. Sci. Conf., Part 2, J. Geophys. Res. 90, Suppl., C613-C616, 1985.

26. G.J. Taylor: Lunar origin meeting favors impact theory. Geotimes 30, No. 4, 16-17, 1985.

27. E.R.D. Scott, R.N. Clayton and T.K. Mayeda: Properties and genesis of two anomalous type 3 chondrites, Suwahib (Buwah) and Willaroy. Lunar Planet. Sci. XVI, 749-750, 1985.

28. E.R.D. Scott: Further petrologic studies of metamorphosed carbonaceous chondrites. Lunar Planet. Sci. XVI, 748, 1985.

29. C.A. Goodrich and S.J. Barnes: Is phosphorus predictably incompatible in igneous processes? Papers presented to the Conference on the Origin of the Moon, LPI Contribution 540, 17, 1984.

30. C.A. Goodrich and J.L. Berkley: Minor elements in ureilites: evidence for reverse fractionation and interstitial silicate liquids. Lunar Planet. Sci. XVI, 280-281, 1985.

31. J.L. Berkley and C.A. Goodrich: Cohenite-bearing metallic spherules in ureilites: petrology and implications. Lunar Planet. Sci. XVI, 49-50, 1985.

32. H.E. Newsom, W.M. White and K.P. Jochum: Did the Earth's core grow through geological time? Lunar Planet. Sci. XVI, 616-617, 1985.

33. T. Dickinson and H.E. Newsom: A possible test of the impact theory for the origin of the Moon. Lunar Planet. Sci. XVI, 183-184, 1985.

34. H.E. Newsom and H. Palme: The depletion of siderophile elements in the Earth's mantle: new evidence from molybdenum and tungsten. Earth Planet. Sci. Lett 69, 354-364, 1984.

35. M.J. Drake, H.E. Newsom, S.J.B. Reed and C. Enright: Experimental determination of the partitioning of gallium between solid iron metal and synthetic basaltic melt: Electron and ion microprobe study. Geochim. Cosmochim. Acta 48, 1609-1615, 1984.

4.4.2. Abstracts Published in Proceedings of Meetings and in Journals.

36. A. Bischoff, K. Keil and D. Stoffler: Perovskite-hibonite-spinel-bearing inclusions and Al-rich chondrules and fragments in enstatite chondrites. Meteoritics 19, 193-194, 1984.

37. A. Okada, K. Keil, B.F. Leonard and I.D. Hutcheon: Schollhornite, $Na_{0.3}(H_2O)_1[CrS_2]$, a new mineral in the Norton County enstatite achondrite. Meteoritics 19, 284-285, 1984.

38. G.J. Taylor and E.R.D. Scott: A quantitative look at chondrite metamorphism. Meteoritics 19, 339-321, 1984.

39. E.R.D. Scott and G.J. Taylor: Metamorphism of type 3 carbonaceous and ordinary chondrites. Meteoritics 19, 310-311, 1984.

40. S.I. Recca, E.R.D. Scott, G.J. Taylor and K. Keil: Fine-grained millimeter-sized objects in type 3 ordinary chondrites and their relation to chondrules and matrix. Meteoritics 19, 296-297, 1984.

41. A.J. Ehlmann, K. Keil, E.R.D. Scott, H. Weber, L. Schultz, T.K. Mayeda and R.N. Clayton: The Kendleton L4 fragmental breccia: parent body surface history. Meteoritics 19, 221-222, 1984.

42. C.V. Williams, A.E. Rubin, K. Keil and A. San Miguel: Petrology of some ordinary chondrite regolith breccias: implications for parent body history. Meteoritics 19, 338, 1984.

43. T. Dickinson, K. Keil, L. LaPaz, D.E. Bogard, R.A. Schmitt, M. R. Smith and M. Rhodes: Petrology and shock age of the Palo Blanco Creek eucrite. Meteoritics 19, 219-220, 1984.

44. C.A. Goodrich: Ureilite petrogenesis: Clues from a graphite and metal-bearing intrusive complex, Disko Island, Greenland. Meteoritics 19, 230-231, 1984.

45. A. Okada, K. Keil and G.J. Taylor: The Norton County enstatite achondrite and its lithic fragments. Tenth Symposium on Antarctic Meteorites, Natl. Inst. Polar Res., Tokyo, 69-70, 1985.

46. K. Keil: Meteoritic breccias. Tenth Symposium on Antarctic Meteorites, Natl. Inst. Polar Res., Tokyo, 125-126, 1985.

47. K. Keil: Meteoritic breccias. Intern. Chemical Congr. of Pacific Basin Soc., Honolulu, Hawaii 07110, 1984.

48. H.E. Newsom: Constraints on the origin of the Moon from molybdenum and other siderophile elements. In Papers Presented to the Conference on the Origin of the Moon, Lunar and Planetary Institute, Houston, 13, 1984.

49. T. Dickinson and H.E. Newsom: Ge abundances in the lunar mantle and implications for the origin of the Moon. In Papers Presented to the Conference on the Origin of the Moon, Lunar and Planetary Institute, Houston, 16, 1984.

50. C.A. Goodrich and S.Barnes: Is phosphorus predictably incompatible in igneous processes? In Papers Presented to the Conference on the Origin of the Moon, Lunar and Planetary Institute, Houston, 17, 1984.

51. G.J. Taylor: Lunar science from a moon base: answering basic questions about planetary science. In Lunar Bases and Space Activities in the 21st Century, NASA/Johnson Space Center, 71, 1984.

52. D. Vaniman, G. Heiken, and G.J. Taylor: A closer look at lunar volcanism. In Lunar Bases and Space Activities in the 21st Century, NASA/Johnson Space Center, 13, 1984.

53. K. Keil: Lunar meteorite Allan Hills A81005: A review. Tenth Symposium on Antarctic Meteorities, Natl. Inst. Polar Res., Tokyo, 122-124, 1985.

54. H.E. Newsom: Evidence for the formation and size of a metal core in the eucrite parent body. Meteoritics 19, 279-280, 1984.

55. H.E. Newsom and G. Graup: Hydrothermal alteration of suevite impact ejecta at the Ries meteorite crater, F.R. Germany. Meteoritics 19, 280-282, 1984.

56. R.H. Price, F.B. Nimick, J.R. Connolly and K. Keil: Preliminary characterization of the petrologic, bulk and mechanical properties of large samples of lithophysal welded tuff. EOS 65, 1081, 1984.

57. L. Brown, J. Geissman, C. Meyers, T. Richardson and T. Sewards: Curious remanent magnetic directions for the late Quarternary Albuquerque volcanoes, New Mexico. EOS 66, 260, 1985.

4.4.3. Papers Submitted or in Press

58. E.R.D. Scott, D. Lusby and K. Keil: Ubiquitous brecciation after metamorphism in equilibrated ordinary chondrites. Proc. 16th Lunar Planet. Sci. Conf., J. Geophys. Res. (Suppl.), in press.

59. A. Kracher, K. Keil, G.W. Kallemeyn, J.T. Wasson, R.N. Clayton, and G.I. Huss: The Leoville (CV3) accretionary breccia. Proc. 16th Lunar Planet. Sci. Conf., J. Geophys. Res., submitted.

60. A. Okada, K. Keil and G.J. Taylor: Petrology of the Norton County enstatite achondrite and history of its parent body. Chemie der Erde (to be submitted).

61. E.R.D. Scott: Pairing of meteorites from Victoria Land and the Thiel Mountains, Antarctica. Smithsonian Contrib. Earth Sci. (submitted).

62. K. Keil, G.H. Conrad, E.A. King and A. San Miguel: Petrology and classification of the Garraf, Spain chondrite. Meteoritics (in press).

63. H.E. Newsom: Constraints on the origin of the Moon from the abundance of molybdenum and other siderophile elements. Origin of the Moon (W. Hartmann, R.Phillips, G.J. Taylor, eds.), Lunar and Planetary Institute (in press).

64. C.A. Goodrich, G.J. Taylor, K. Keil, G.W. Kallemeyn and P.H. Warren: Alkali norite, troctolites, and VHK mare basalts from breccia 14304. Proc. 16th Lunar Planet. Sci. Conf. (in press).

65. G.J. Taylor: The need for a lunar base: answering basic questions about planetary science. Lunar Bases and Space Activities in the 21st Century (W. Mendell, ed.), Lunar and Planetary Institute (in press).

66. D. Vaniman, G. Heiken, and G.J. Taylor: A closer look at lunar volcanism from a base on the moon. Lunar Bases and Space Activities in the 21st Century (W. Mendell, ed.), Lunar and Planetary Institute (in press).

67. T. Dickinson, K. Keil, L. LaPaz, D.D. Bogard, R.A. Schmitt, M.R. Smith and J.M. Rhodes: Petrology and shock age of the Palo Blanco Creek eucrite. Chemie der Erde (in press).

68. G.J. Taylor: Earth's Moon: doorway to the solar system. The Planets, Byron Preiss (ed.), Bantum Books (in press).

69. G.R. Brakenridge, H.E. Newsom and V.R. Baker: Hot springs on Mars: Origins and paleoenvironmental significance of small martian valleys. Geology (submitted).

70. J.R. Connolly, and B.S. Kues: Precambrian -- upper Paleozoic geology along Interstate 40 east of Albuquerque, New Mexico. Geol. Soc. America Decade of North American Geology Centennial Field Guide, Rocky Mountain Section (in press).

71. J.R. Connolly and K. Keil: Field, petrologic, and geochemical relations of the Grouse Canyon Member of the Belted Range Tuff in the GTUF rock mechanics test area, U12g Tunnel, Nevada Test Site. Sandia National Laboratories Contractor Report SAND84-7206.

72. R.T. Glenn: Story of the San Juan Basin. A preliminary script with slides for an exhibit on the geologic history of the San Juan Basin for the New Mexico Museum of Natural History, submitted January, 1985.

4.4.4. Abstracts Submitted or in Press.

73. R. Brett and K. Keil: Enstatite achondrites did not form from enstatite chondrites. Meteoritics (submitted).

74. J.L. Berkley, C.A. Goodrich and K. Keil: The unique ureilite, ALHA82106-82130: evidence for progressive reduction during ureilite magmatic differentiation. Meteoritics (submitted).

75. C.A. Goodrich, K. Keil, J.L. Berkley, J.C. Laul, M.R. Smith, R.N. Clayton, T.K. Mayeda and J.F. Wacker: Roosevelt County 027 -- a low-shock ureilite with primary interstitial silicate liquid. Meteoritics (submitted).

76. G.R. Brakenridge, H.E. Newsom and V.R. Baker: Hot springs on Mars: origins and paleoenvironmental significance of small martian valleys. Geological Society of America (submitted).

77. W.M. White, H. Newsom, K.P. Jochum and A.W. Hofmann: Siderophile-chalcophile element abundances, core formation and mantle Pb isotope evolution. Terra Cognita 1985 (in press).

4.4.5. Professional Papers Read (Speaker+).

78. K. Keil+: A voyage through our solar system. German Summer School, Dept. of Modern and Classical Languages, Univ. of New Mexico, Taos, N.M. June 29-July 1, 1984.

79. A. Okada, K. Keil+, B.F. Leonard and I.D. Hutcheon: Schollhornite, $Na_{0.3}(H_2O)_1[CrS_2]$, a new mineral in the Norton County enstatite achondrite. 47th Meteoritical Soc. Meet., Albuquerque, N.M. July 30 - Aug. 2, 1984.

80. K. Keil+: Origin of the soil of Mars. Dept. of Geology, Univ. of New Mexico, Albuquerque, N.M. Sept. 13, 1984.

81. K. Keil+: Origin of meteorites -- from asteroids, comets, Moon and Mars. Albuquerque Geological Soc. Meeting. Sept. 18, 1984.

82. K. Keil+: Past and future exploration of Mars. UNM Students for the Exploration and Development of Space, UNM. Oct. 3, 1984.

83. K. Keil+: Martian soil and prospects for rover missions. Dept. of Geological Sciences, Univ. of Colorado, Boulder, Colorado, Oct. 31, 1984.

84. K. Keil+: Composition of the soil of Mars. Suess Symposium, Univ. of California, La Jolla, California. Dec. 14, 1984.

85. K. Keil+: Meteoritic breccias. PacChem 1984 Conference, Honolulu, Hawaii. Dec. 21, 1984.

86. A. Bischoff+, K. Keil and D. Stoffler: Perovskite-hibonite-spinel-bearing inclusions and Al-rich chondrules and fragments in enstatite chondrites. 47th Meteoritical Soc. Meeting, Albuquerque, N.M. July 30 - August 2, 1984.

87. S.I. Recca+, E.R.D. Scott, G.J. Taylor and K. Keil: Fine-grained millimeter-sized objects in type 3 ordinary chondrites and their relation to chondrules and matrix. 47th Meteoritical Soc. Meeting, Albuquerque, N.M., July 30 - August 2, 1984.

88. A.J. Ehlmann+, E.R.D. Scott, K. Keil, H. Weber, L. Schultz, T.K. Mayeda and R.N. Clayton: The Kendleton L4 fragmental breccia-parent body surface history. 47th Meteoritical Soc. Meeting, Albuquerque, N.M., July 30 - August 2, 1984.

89. C.V. Williams+, A. E. Rubin, K. Keil and A. San Miguel: Petrology of some ordinary chondrite regolith breccias -- implications for parent body history. 47th Meteoritical Soc. Meeting, Albuquerque, N.M., July 30 - August 2, 1984.

90. T. Dickinson+, K. Keil, L. LaPaz, D.E. Bogard, R.A. Schmitt, M.R. Smith and M. Rhodes: Petrology of the Palo Blanco Creek eucrite and age of shock history. 47th Meteoritical Soc. Meeting, Albuquerque, N.M., July 30 - August 2, 1984.

91. A. Bischoff+, K. Keil and D. Stoffler: Ca-Al-rich objects in ordinary chondrites: significance for the origin of chondrules and chondrites. German Mineralogical Soc. Meeting. 1983.

92. C. Byers, R.C. Ewing+, M.J. Jercinovic and K. Keil: A natural basaltic glass analogue for the long-term extrapolation of nuclear waste glass aging. Ann. Meet. Materials Res. Soc., Boston. 1984.

93. G.J. Taylor+ and E.R.D. Scott: A quantitative look at chondrite metamorphism. 47th Meteoritical Soc. Meeting, Albuquerque, N.M., July 30 - August 2, 1984.

94. G.J. Taylor+: What were the earliest lunar differentiation events? Invited talk at the Conference on the Origin of the Moon, Kona, Hawaii. October 13-16, 1984.

95. G.J. Taylor+: Lunar science from a Moon base: Answering basic questions about planetary science. Invited talk at the Symposium on Lunar Bases and Space Activities in the 21st Century, Washington, D.C. October 29-31, 1984.

96. G.J. Taylor+: Fragmentation history of asteroids: evidence from meteorites. Invited talk at the Institute for Geophysics and Planetary Physics, University of California, Los Angeles. April 23, 1985.

97. E.R.D. Scott+ and G.J. Taylor: Metamorphism of type 3 carbonaceous and ordinary chondrites. 47th Meteoritical Soc. Meeting, Albuquerque, N.M. July 30 - August 2, 1984.

98. H.E. Newsom+: Evidence for the formation and size of a metal core in the eucrite parent body. 47th Meteoritical Soc. Meeting, Albuquerque, N.M. July 30 - August 2, 1984.

99. H.E. Newsom+ and G. Graup: Hydrothermal alteration of suevite impact ejecta at the Ries meteorite crater, F.R. Germany. 47th Meteoritical Soc. Meeting, Albuquerque, N.M. July 30 - August 2, 1984.

100. H.E. Newsom+: Constraints on the origin of the Moon from molybdenum and other siderophile elements. Conference on the Origin of the Moon, Kona, Hawaii. October 13-16, 1984.

101. T. Dickinson and H.E. Newsom+: Ge abundances in the lunar mantle and implications for the origin of the Moon. Conference on the Origin of the Moon, Kona Hawaii. October 13-16, 1984.

102. H.E. Newsom+, W.M. White and K.P. Jochum: Did the Earth's core grow through geological time? 16th Lunar and Planetary Sci. Conf., Houston, Texas. March 11-15, 1985.

103. C.A.Goodrich+ and S.J. Barnes: Is phosphorus predictably incompatible in igneous processes? Conference on the Origin of the Moon, Kona, Hawaii. October 13-16, 1984.

104. C.A. Goodrich+: The role of carbon in ureilite petrogenesis. Invited paper, presented at Lunar and Planetary Institute, Houston, Texas. November 15, 1984.

105. C.A. Goodrich+ and J.L. Berkley: Minor elements in ureilites: evidence for reverse fractionation and interstitial silicate liquids. 16th Lunar and Planetary Sci. Conf., Houston, Texas, March 11-15, 1985.

106. C.A. Goodrich+, G.J. Taylor, K. Keil, S.J.B. Reed, W.V. Boynton and D.H., Hill: Ion microprobe analysis of REE in phosphates in the apatite-rich clast from ALHA81005. 16th Lunar and Planetary Sci. Conf., Houston, Texas. March 11-15, 1985.

107. R.H. Price, F.B. Nimick, J.R. Connolly+ and K. Keil: Preliminary characterization of the petrologic, bulk and mechanical properties of large samples of lithophysal welded tuff. American Geophysical Union Fall Meeting, San Francisco, California. December 3-7, 1984.

108. T. Dickinson+ and H. Newsom: A possible test of the impact theory for the origin of the moon. 16th Lunar and Planetary Sci. Conf., Houston, Texas. March 11-15, 1985.

109. M.J. Jercinovic+: An overview of the geology of southern Iceland. Student VIP lecture series, Dept. of Geology, University of New Mexico. March 27, 1985.

110. M.J. Jercinovic+: Palagonitization of subglacial volcanics from North-Central British Columbia. Albuquerque Geological Society. April 2, 1985.

111. M.J Jercinovic+: Palagonite formation in basaltic glasses. Dept. of Geology, University of New Mexico. April 18, 1985.

112. K. Keil+: Meteoritic breccias: origin and implications. Dept. of Chemistry, University of California, La Jolla, California. June 5, 1985.

113. D. Lusby+, E.R.D. Scott and K. Keil: Chemically anomalous objects in types 4-6 ordinary chondrites: evidence for ubiquitous brecciation following metamorphism. 16th Lunar and Planetary Sci. Conf., Houston, Texas. March 11-15, 1985.

114. E.R.D. Scott+, G.J. Taylor and K. Keil: Nature and evolution of unmetamorphosed parent material of types 4-6 ordinary chondrites. 16th Lunar and Planetary Sci. Conf., Houston, Texas. March 11-15, 1985.

115. J. L. Berkley+ and C.A. Goodrich: Cohenite-bearing metallic spherules in ureilites: petrology and implications. 16th Lunar and Planetary Sci. Conf., Houston, Texas. March 11-15, 1985.

116. C.A. Goodrich+: Ureilite petrogenesis: clues from a graphite and metal-bearing intrusive complex, Disko Island, Greenland. 47th Meteoritical Soc. Meeting, Albuquerque, N.M. July 30 - August 2, 1984.

117. A. Okada+, K. Keil and G.J. Taylor: The Norton County enstatite achondrite and its lithic fragments. 10th Symp. on Antarctic Meteorites, Natl. Institute of Polar Research, Tokyo, Japan. March 25-29, 1985.

118. K. Keil+: Meteoritic breccias. 10th Symp. on Antarctic Meteorites, Natl. Institute of Polar Research, Tokyo, Japan. March 25-29, 1985.

119. K. Keil+: Lunar meteorite ALHA81005: a review. 10th Symp. on Antarctic Meteorites, Natl. Institute of Polar Research, Tokyo, Japan. March 25-29, 1985.

120. D. Vaniman+, G. Heiken and G.J. Taylor: A closer look at lunar volcanism. Symp. on Lunar Bases and Space Activities in the 21st Century, Washington, D.C. October 29-31, 1984.

4.5 Other Research Projects or Creative Work in Progress or Completed During Period (Research Grants and Contracts)

The following research grants and contracts were in effect during the report period:

1.	"Geological support work of Nevada Nuclear Waste Storage Investigations." Sandia National Laboratories. October 1, 1983 - September 30, 1984	$ 61,749.00
2.	"Halite mineralogy of the Solado Formation." Sandia National Laboratories. July 29, 1983 - September 30, 1984	$ 25,134.00
3.	"Origin and evolution of meteorite parent bodies and the Moon." National Aeronautics and Space Administration. February 1, 1984 - January 31, 1985.	$ 235,000.00

4.	"Partial funding of transmission electron microscope." National Aeronautics and Space Administration. January 1 - December 31, 1984	$ 100,000.00
5.	"Halite mineralogy of the Solado Formation." Sandia National Laboratories. October 1, 1984 - September 30, 1985	$ 50,801.00
6.	"Geological support work of Nevada Nuclear Waste Storage Investigations." October 1, 1984 - September 30, 1985	$ 78,939.00
7.	"Physical and chemical conditions of the lower crust as deduced from xenoliths in lavas of the Leucite Hills, Wyoming." National Science Foundation, via the University of Northern Iowa. January 1 - December 31, 1985	$ 7,429.00
8.	"Origin and evolution of meteorite parent bodies and the Moon." National Aeronautics and Space Administration. February 1, 1985 - January 31, 1986.	$ 246,500.00
9.	"Ge abundances in lunar rocks: did the Moon form totally molten? NASA Graduate Student Researchers Fellowship, NASA Headquarters (to Tammy Dickinson). May 15, 1985 - May 15, 1986	$ 17,966.00
Total grants and contracts in effect		$ 823,518.00

4.6 Activities in Learned and Professional Societies

4.6.1. Offices Held

Klaus Keil

1. Member, Advisory Committee on Comparative Planetology, International Union of Geological Sciences.

2. Associate Editor, Journal of Geophysical Research, American Geophysical Union.

3. Acting Associate Editor, Geochimica et Cosmochimica Acta.

E.R.D. Scott

1. Associate Editor, Journal of Geophysical Research, American Geophysical Union.

4.6.2. Meetings Attended

Klaus Keil

1. 47th Meteoritical Society Meeting, Albuquerque, New Mexico. Presented one talk and coauthored five talks. July 30 - August 2, 1984.

2. H.E. Suess Symposium, University of California, La Jolla, California. Presented one invited talk. December 12-15, 1984.

3. PacChem Conference, 1984, Honolulu, Hawaii. Presented one invited talk. December 16-21, 1984.

4. Lunar and Planetary Science Conference, NASA Johnson Space Center, Houston, Texas. March 10-15, 1985.

5. 10th Symposium on Antarctic Meteorites, National Institute of Polar Research, Tokyo, Japan. March 24 - April 2, 1985.

G.J. Taylor

1. 47th Annual Meteoritical Society Meeting, Albuquerque, New Mexico. Presented one talk and co-authored two. July 30 - August 2, 1984.

2. Conference on the Origin of the Moon, Kona, Hawaii. Presented an invited talk and chaired a session. October 13-16, 1984.

3. Symposium on Lunar Bases and Space Activities in the 21st Century, Washington, D.C. Presented an invited talk. October 29-31, 1984.

4. 16th Lunar and Planetary Science Conference, Houston, Texas. Chaired two sessions and co-authored three papers. March 10-15, 1985.

E.R.D. Scott

1. 47th Annual Meteoritical Society Meeting, Albuquerque, New Mexico. Presented one talk. July 30 - August 2, 1984.

2. 16th Lunar and Planetary Science Conference, NASA Johnson Space Center, Houston, Texas. Presented one talk. March 11-15, 1985.

H.E. Newsom

1. 47th Annual Meteoritical Society Meeting, Albuquerque, New Mexico. Presented two talks and chaired a session. July 30 - August 2, 1984.

2. Conference on the Origin of the Moon, Kona, Hawaii. Presented two talks. October 13-16, 1984.

3. 16th Lunar and Planetary Science Conference, NASA Johnson Space Center, Houston, Texas. Presented one talk. March 11-15, 1985.

Cyrena A. Goodrich

1. 47th Meteoritical Society Meeting, Albuquerque, New Mexico. July 30 - August 2, 1984.

2. Conference on the Origin of the Moon, Kona, Hawaii. Presented one paper. October 13-16, 1984.

3. 16th Lunar and Planetary Science Conference, NASA Johnson Space Center, Houston, Texas. Presented two papers. March 11-15, 1985.

4. Workshop on the Early Archean, Godthab, Greenland. June 21 - July 6, 1985.

G.H. Conrad

1. Microprobe Analysis Society Meeting, Leheigh University, Bethlehem, Pennsylvania. August, 1984.

J.R. Connolly

1. New Mexico Geological Society Annual Field Trip, "Rio Grande Rift in Northern New Mexico." October 10-13, 1984.

2. American Geophysical Union Fall Meeting, San Francisco, California. Presented one paper. December 3-7, 1984.

3. New Mexico Geological Society Spring Meeting, Socorro, New Mexico. Chaired one session. April 26-27, 1985.

M.G. Bersch

1. 47th Meteoritical Society Meeting, Albuquerque, New Mexico. July 30 - August 2, 1985.

Tammy L. Dickinson

1. 47th Meteoritical Society Meeting, Albuquerque, New Mexico. Presented one paper. July 30 - August 2, 1984.

2. Mineralogical Society of America Short Course on Micas, Reno, Nevada. November 2-4, 1984.

3. Geological Society of America Meeting, Reno, Nevada. November 5-8, 1984.

4. 16th Lunar and Planetary Science Conference, NASA Johnson Space Center, Houston, Texas. Presented one paper. March 11-15, 1985.

Rosemary T. Glenn

1. 47th Meteoritical Society Meeting, Albuquerque, New Mexico. July 30 - August 2, 1984.

M.R. Jercinovic

1. Materials Research Society Meeting, Boston, Massachusetts. November 26-30, 1984.

D. Lusby

1. 47th Meteoritical Society Meeting, Albuquerque, New Mexico. July 30 - August 2, 1984.

S.I. Recca

1. 47th Meteoritical Society Meeting, Albuquerque, New Mexico. Presented one paper. July 30 - August 2, 1984.

Cecelia B. Williams

1. 47th Meteoritical Society Meeting, Albuquerque, New Mexico. Presented one paper. July 30 - August 2, 1984.

4.6.3. Presentations at Professional Society Meetings

Klaus Keil

1. Schollhornite, $Na_{0.3}(H_2O)_1[CrS_2]$, a new mineral in the Norton County enstatite achondrite. 47th Meteoritical Society Meeting, Albuquerque, New Mexico. July 30 - August 2, 1984.

2. Origin of meteorites: from asteroids, comets, Moon and Mars. Albuquerque Geological Society Meeting. September 18, 1984.

3. Meteoritic breccias. PacChem 1984 Conference, Honolulu, Hawaii. December 21, 1984.

G.J. Taylor

1. A quantitative look at chondrite metamorphism. 47th Meteoritical Society Meeting, Albuquerque, New Mexico. July 30 - August 2, 1984.

E.R.D. Scott

1. Metamorphism of type 3 carbonaceous and ordinary chondrites. 47th Meteoritical Society Meeting, Albuquerque, New Mexico. July 30 - August 2, 1984.

H.E. Newsom

1. Evidence for the formation and size of a metal core in the eucrite parent body. 47th Meteoritical Society Meeting, Albuquerque, New Mexico. July 30 - August 2, 1984.

2. Hydrothermal alternation of suevite impact ejecta at the Ries meteorite crater, F.R. of Germany. 47th Meteoritical Society Meeting, Albuquerque, New Mexico. July 30 - August 2, 1984.

Cyrena A. Goodrich

1. Ureilite petrogenesis: clues from a graphite and metal-bearing intrusive complex, Disko Island, Greenland. 47th Meteoritical Society Meeting, Albuquerque, New Mexico. July 30 - August 2, 1985.

J.R. Connolly

1. Preliminary characterization of the petrologic, bulk and mechanical properties of large samples of lithophysal welded tuff. American Geophysical Union Fall Meeting, San Francisco, California. December 3-7, 1984.

Tammy L. Dickinson

1. Petrology of the Palo Blanco Creek eucrite and age of shock history. 47th Meteoritical Society Meeting, Albuquerque, New Mexico. July 30 - August 2, 1984.

M.J. Jercinovic

1. Palagonitization of subglacial volcanics from North-Central British Columbia. Albuquerque Geological Society Meeting. April 2, 1985.

S.I. Recca

1. Fine-grained millimeter-sized objects in type 3 ordinary chondrites and their relation to chondrules and matrix. 47th Meteoritical Society Meeting, Albuquerque, New Mexico. July 30 - August 2, 1984.

Cecelia B. Williams

1. Petrology of some ordinary chondrite regolith breccias: implications for parent body history. 47th Meteoritical Society Meeting, Albuquerque, New Mexico. July 30 - August 2, 1984.

4.7 Other Professional Activities

Klaus Keil

1. Member, Advisory Committee on Comparative Planetology, International Union of Geological Sciences. 1982 -1985.

2. Associate Editor, Journal of Geophysical Research, American Geophysical Union. 1982 -1985.

3. Associate Editor, Journal "Chemie der Erde."

4. Consultant, Sandia National Laboratories, Albuquerque, New Mexico.

5. Reviewed several proposals submitted to NASA and NSF for funding.

6. Reviewed fourteen scientific papers submitted for publication in Geochimica et Cosmochimica Acta, Meteoritics, Science, Nature, Chemical Geology, 8th Symposium on Antarctic Meteorites (Japan), Chemie der Erde, and Materials Research Society Symposium.

7. Member, Editorial Board, Journal "Chemical Geology."

8. Member, Editorial Board, Tschermak's Mineralogisch-Petrographische Mitteilungen, Vienna, Austria.

9. Member, NASA Advisory Committee on Minority Graduate Researchers.

10. Interview with Albuquerque Journal (Nancy Harbert) on Meteoritical Society Meeting, July 17, 1984.

11. Interview with UNM Lobo on research in Institute of Meteoritics. July 23, 1984.

12. Interview with Albuquerque Journal (Byron Spice) on Meteoritical Society Meeting. July 25, 1984.

13. Acting Associate Editor, Geochimica et Cosmochimica Acta (1984).

14. Member Advisory Committee for the Institute of Geophysics and Planetary Physics, University of California, Los Alamos National Laboratory, Los Alamos, New Mexico (since 1984).

15. Several interviews with Frank Martinez, UNM Public Information, on activities in Institute of Meteoritics and Meteoritical Society Meeting.

16. Interview with Albuquerque Tribune on Meteoritical Society Meeting.

17. Taped radio program with Russell Goodman of UNM on research in Institute of Metoritics. July 27, 1984.

18. Interview with Boston Globe on Meteoritical Society Meeting. July 31, 1984.

19. Hosted visitors for UNM Parents Day in Meteorite Museum. October 13, 1984.

20. Hosted tour of Institute of Meteoritics, Meteorite Museum and laboratories for International Science Teachers Conference. Nov. 29, 1984.

21. Chairman, Review Panel on Space Station Planetology Experiments (SSPEX), NASA Headquarters, Washington, D.C.

22. Chairman, Organizing Committee, 47th Meteoritical Society Meeting, Albuquerque, New Mexico.

23. Member, Program Committee, 47th Meteoritical Society Meeting, Albuquerque, New Mexico.

G.J. Taylor

1. Member of the Organizing Committee and Program Committee for the 1984 meeting of the Meteoritical Society.

2. Co-convenor of and member of the Program Committee for the Conference on the Origin of the Moon.

3. Member of the Lunar Base Steering Committee.

4. Member of the Lunar and Planetary Sample Team.

5. Chairman of the Lunar and Planetary Geoscience Review Panel.

6. Editor of Origin of the Moon, a book to be published by the Lunar and Planetary Institute.

7. Reviewed 15 proposals submitted to NASA for funding and 3 submitted to NSF.

8. Reviewed papers submitted to international scientific journals: 5 to Geochim. Cosmochim. Acta, one to Earth and Planetary Science Letters, and four to the Proceedings of the Lunar and Planetary Science Conference.

E.R.D. Scott

1. Member, Antarctic Meteorite Working Group.

2. Chairman, Program Committee, 47th Meteoritical Society Meeting, Albuquerque, New Mexico.

3. Associate Editor, Journal of Geophysical Research, American Geophysical Union.

4. Reviewed four NASA grant proposals.

5. Member, Lunar and Planetary Geosciences Review Panel (NASA), from June 30, 1985 for 3 years.

6. Reviewed 8 scientific papers submitted for publication in Meteoritics (2), Geochimica et Cosmochimica Acta (3), Nature (1), Proceedings of the Ninth Symposium on Antarctic Meteorites (2).

H.E. Newsom

1. Reviewed three papers submitted to Geochimica et Cosmochimica Acta.

2. Reviewed one grant proposal submitted to NASA.

3. Reviewed two papers submitted to the book, Origin of the Moon, Lunar and Planetary Institute, Houston.

Cecelia V. Williams

1. Taught Chemistry and Biology to 10th-12th grades, Eldorado High School, Albuquerque, New Mexico. January 2 - May 23, 1985.

4.8. Non-teaching University Service

Klaus Keil

1. Administration of the Institute of Meteoritics and its collections.

2. Chairman and member of several thesis and dissertation committees in the Department of Geology.

3. Service on UNM-University of Sao Paulo, Brazil, joint research and exchange program committee.

4. Served as Director of the Caswell Silver Foundation, Department of Geology, UNM.

5. Served on several M.S. and Ph.D. comprehensive examinations committees.

6. Served on Department of Geology Committee to revise requirements for geology Ph.D. program at UNM.

7. Served on UNM Honorary Degree Committee.

8. Hosted the visits of several prospective geology graduates students to UNM.

9. Hosted 21 Club, University of New Mexico. October 15, 1984.

10. Served on President's Committee on Research and Graduate Affairs, University of New Mexico.

E.R.D. Scott

1. Curator, Meteorite Collection, Institute of Meteoritics, University of New Mexico.

H.E. Newsom

1. Developed the Neutron Activation Laboratory in the Deparment of Geology and Institute of Meteoritics, University of New Mexico.

4.9. Public Service

Klaus Keil

1. Presented talk on "A Voyage Through Our Solar System" to Albuquerque Gem and Mineral Club, Albuquerque, New Mexico, September 24, 1984.

2. Many private showings of moon rocks to interested citizens, school classes, civic groups, etc., many of which were after working hours and on weekends.

3. Investigated without charge many rocks suspected to be meteorites and brought to the institute by citizens.

4. Presented talk on "A Voyage Through Our Solar System" to Los Alamos - Santa Fe German Club (in German), Santa Fe, New Mexico. January 20, 1985.

5. Presented talk on "A Voyage Through Our Solar System," for the benefit of the New Mexico Museum of Natural History, Kimo Theater, Albuquerque, New Mexico. January 30, 1985.

6. Presented talk to Senior Citizens Rock Hound Club on "A Voyage Through Our Solar System," Palo Duro Senior Center, Albuquerque, New Mexico. May 23, 1985.

G.J. Taylor

1. Gave talk to First Grades at Manzano Day School, February 6, 1985.

2. Gave talk to Second Grades at Bandelier Elementary School, March 19, 1985.

3. Gave talk to New Mexicans for Space Exploration, April 25, 1985.

4. Gave three tours of meteorite museum to groups of school children.

5. Examined several possible meteorite samples brought in by interested citizens.

E.R.D. Scott

1. Tours of meteorite museum and talks on meteorites for seven school parties.

2. Investigated suspected meteorites submitted by members of the public.

H.E. Newsom

1. Interviewed by the Albuquerque Journal December 7, 1984, and article published December 12, 1984: Is the Moon the Aftermath of Planet-Planet Collision? by Byron Spice.

2. Presented talk "Meteorites, clues to the formation of the solar system" to Albuquerque Heights Lions Club, January 24, 1985.

G.H. Conrad

1. Conducted about 20 tours of microbeam analysis facilities in Department of Geology and Institute of Meteoritics to various UNM and other groups.

J.R. Connolly

1. Served as judge for New Mexico Northern Region Science Fair. University of New Mexico, March 15, 1985.

2. Secretary and Member of Board of Directors, Ponderosa Child Care, Incorporated (Non-profit).

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Tammy L. Dickinson

1. Gave tours of meteorite and geology museums, and gave showings of moon rocks and meteorites to two elementary school groups.

2. Conducted all day geology experience for Girl Scout Camp, Janesville, Iowa. June 20, 1985.

Rosemary T. Glenn

1. Appointed by Mayor of Albuquerque to serve on the Metropolitan Parks and Recreation Advisory Board. Attended monthly meetings of the board and public functions. Testified for the board at meeting of City Council committees, Environmental Planning Commission, and County Planning Commission.

2. Served as liason (of Metropolitan Parks and Recreation Advisory Board) and member of the Beautification Committee of the Environmental Planning Commission. Attended monthly meetings of the Committee and participated on project reviews. Testified at other board and commission meetings.

3. Conducted geology portion of several tours of the Albuquerque Volcanoes and volcanic escarpment for public officials and citizens, October 25 and 27, 1984.

4. Participated in research and writing of Alvarado Gardens neighborhood plan draft, submitted to City of Albuquerque for review.

Cecelia V. Williams

1. Led tours of the Meteorite Museum for two school groups, March 19 and April 25, 1985.

2. Assisted students at Eldorado High School with chemistry and engineering science fair projects. February - May, 1985.

3. Served as judge in Geology, senior division, at Northwest Regional Science Fair, March 22, 1985.

THE REPORT OF THE DEPARTMENT OF HISTORY

July 1, 1984 - June 30, 1985

Janet Roebuck, Chair

I. GENERAL DEPARTMENTAL INFORMATION

A. Significant Achievements:

1. The following courses were offered under 220/320 "Studies in History"

   220. Southwest History

   320. Modern Spain

   Japanese History as Seen Through the Japanese Cinema

   Western Films

   Mexican History in Films

   Hitler to Walesa

   New Mexico Colonial Archeology and History

   510. Reading Seminar & Studies in Historical Editing

2. Activities Beyond the Formal Curriculum:

   a. The journals, The New Mexico Historical Review, Editor, Richard Etulain; and the Hispanic American Historical Review, Editor, John Johnson, Assoc. Editor, Peter Bakewell, Book Review Editor, Edwin Lieuwen, continued as part of the Department. John Kessell is Director of the Diego De Vargas Project.

b. The departmental Newsletter was edited by Professor Mike Conniff and distributed to 700 universities and History Ph.D. alumni.

c. Under the direction of Professor Peter Kolchin, the Department continued its series of symposia on historical topics, in which various faculty members and graduate students reported on thier research activities.

d. Many members of the Department participated in this year's particularly successful History Day.

2. Awards

a. Sandra Blankenburg and Robin McNeal were recipients of the Grunsfeld Award.

b. The Dorothy Woodward Memorial Fellowship was awarded to Charles Cutter. Sandra Schackel and Mark Banker received Dorothy Woodward Memorial Travel Grants.

c. Graduate School Awards were received by the following students: Donna Alexander - Achievement Award; Charles Cutter - Graduate School Award; Karen Peterson - Challenge Assistantship.

B. Significant Changes Implemented and Planned:

1. The Department conducted a search for a Latin American historian to fill the position vacated by Professor Lieuwen's retirement. Dr. Linda Hall, who has been on the Faculty of Trinity

University has accepted the offer of the position. We look forward to her joining us in the Fall of 1986.

2. A proposal to change the definition of the graduate fields in Modern European History to reflect changes in the discipline and make them more useful to students was approved by the Department. We are currently seeking approval of the changes by appropriate University authories.

3. The Department continues to seek a guarantee of the modest annual funding which would allow us to offer a Public History Program.

C. Appointment to Staff:

1. Regular Faculty Appointments

Dr. Paul Hutton, a Military Historian and Dr. Melvin Yazawa, a Colonial Americanist, took up their appointments in the Department as Assistant Professors.

2. Visiting or Part-Time Appointments

a. Anne Boylan, Visiting Assistant Professor, U.S. survey academic year (3/4 time), 1984-85.

b. John Johnson, Professor (part-time, 1 course); Editor, Hispanic American Historical Review, academic year, 1984-85.

c. Margaret Connell Szasz, Adjunct Assistant Professor, U.S. History (part-time, fall-spring)

d. William Zahner, Visiting Lecturer, Western Civilization (part-time, fall)

e. Hana Samek, Visiting Lecturer, Western Civilization (part-time, spring)

f. Marjorie Bell Chambers, Visiting Lecturer, U.S. History (part-time, spring)

3. Office Staff Appointments

Fran Bothwell joined the office staff as Staff Secretary.

D. Separation From Staff:

1. Professor Edwin Lieuwen, a long time faculty member and central figure in Latin American Studies, retired in the summer of 1985. We thank him for his many years of service and wish him well in his retirement.

E. Sponsored Research:

1. Seven professors submitted 11 proposals, (25% of current faculty).

2. Of these seven submitting proposals, six obtained awards. (86%)

3. Ferenc Szasz was awarded a Fulbright to the University of Exeter, England.

4. David Maciel was awarded a Fulbright Research and Teaching Fellowship in Mexico.

Report of the NEW MEXICO HISTORICAL REVIEW

July 1, 1984 - June 30, 1985

Richard W. Etulain, Editor

STAFF APPOINTMENTS

We have experienced three staff changes this year. First, this report is my sixth and last as editor; Paul Hutton has assumed editorship of the REVIEW as of July 1, 1985. Sandra Schackel has completed her second year as assistant editor and will continue in the position next year. Nancy Brown has been promoted to office manager, a position in reality she has capably filled for several years as the only full-time person on the staff. During the year Lynn Brittner has been our work-study, editorial assistant, but this fall will hold a coveted internship with the Smithsonian Institution in Washington, D.C.

Members of our two editorial boards served without remuneration in assisting the editorial staff in deciding on what essays to publish and in helping us to secure additional essays. I have written to thank members of these boards for their aid in the past six years.

OTHER DEVELOPMENTS

We have been able to reach several of our goals this year. Not only have all our issues been on time--as they have been for the past five-and-one-half years--we have also been able to add more book reviews and an additional essay or two to the length of our four issues during the year.

We think that we may have one of the two or three strongest state history journals in the West. At least that is what readers and subscribers have been telling us, and we agree.

We have also put out two special issues this year. The January issue, edited by Richard Greenleaf of Tulane University and honoring former Editor Eleanor Adams, contained several strong essays on New Mexico and the Borderlands. The fall issue will also center on a special topic: Indians of New Mexico. These special-topic issues, we think, will call attention to the strong essays the journal continues to publish. Generally, the REVIEW has been able to publish essays and reviews by many noted New Mexico and western historians, and in doing so, it has been able to further the cause of well-written state and regional history.

PROMOTIONAL EFFORTS

Realizing that a scholarly history journal must also promote itself and its contents, we have tried a variety of means to accomplish those missions during the past year. While all of the editorial staff has played a part in those efforts, Nancy Brown's indefatigible work has done the most to advertize the journal. We have displayed the journal at several historical and general conferences around the state as the following list indicates.

Albuquerque Summerfest, July, sales
Raton, historical talk, July, sales
Albuquerque Feria Artesana, August, sales
Albuquerque. New Mexico Genealogical Society seminar, September, sales
Kirtland AFB, LULAC bilingual workshop, September, sales
Kirtland AFB, historical talk, September, display
UNM, Library book signing, September, sales
Mountainair, Gran Quivira conference, October, sales
St. Paul, Western Historical Association conference, October, display
Santa Fe, New Mexico Council of the Social Studies meeting, October, display
UNM, Bookstore festival, October, sales
San Gabriel Pueblo, commemorative program, October, sales
Taos, historical program, October, sales
Truth or Consequences, historical talk, February, sales
UNM, Women Studies conference, March, sales
Las Cruces, Historical Society of New Mexico conference, April,sales
Dulce, historical talk, April, sales
Albuquerque, Latin American Studies conference, April, display
Santa Fe, New Mexico Library Association conference, April, display
Santa Fe, Council on Abandoned Military Posts, April, sales
Santa Fe, New Mexico Archaeological Society conference,
April, sales
Santa Fe, New Mexico Folklore Society conference, April, sales

In addition we have tried other nontraditional methods to add subscribers to our mailing lists.

Arranging sales of REVIEW issues on local history topics at several area museums including the Rough Rider's Museum-Las Vegas, Old Mill Museum-Cimarron, the Carson, Blumenschein, and Martinez homes-Taos, the University museums at NMSU and WNMU, the Salmon Ruins Museum-Farmington, Billy the Kid Museum-Fort Sumner, Fort Sumner State Monument, Smokey the Bear Museum-Capitan, the Pueblo Indian Museum-Albuquerque, and local museums in Pinos Altos, Folsom, Raton, Farmington, Cloudcroft, Mogollon, Silver City, Madrid, Moriarty, Deming, and Albuquerque. Other places selling NMHRs are the Navaho Community College-Chinle, and shops in Albuquerque, Raton, Las Vegas, Taos, Santa Fe, and Lincoln.

Visiting classrooms to talk about the REVIEW, including:

Spanish Culture of New Mexico, Gonzales-Berry, September
Cross-Cultural Education, Carrillo, September
New Mexico Folklore, Duran and Riviera, June
Southwest Women's History, Rebolledo, June
Southwest Institute, William, June

OTHER ACTIVITIES

To gain the attention and to spread the influence it needs and must carry out, the REVIEW has moved beyond publishing scholarly articles and reviews and adding new subscribers. To do this, we have tried to promote history generally. Sometimes we have done this formally or informally, as the following listing suggests.

Assisance to the Committee for the Promotion of History
Promotion of events, groups, and special publications on history in our News and History Notes section of the journal
Answering reference and inquiry letters about state history
Providing sample issues and resource handouts pertaining to the NMHR for meetings and workshops

We exchanged information ads or included notices from the following places:

Albuquerque, American Institute of Architects
Albuquerque Archaeological Society
Archaeological Society of New Mexico
Association for Preservation Technology
Brigham Young University
Chaves County Historical Society
COMMUNIQUE, journal for preservation history
Documentary Relations of the Southwest-Arizona State Museum
El Rancho de Las Golondrinas-La Cienega
El Valle Foundation
Historical Society of New Mexico
Lincoln County Historical Society
Lincoln Pageant and Festival Corporation
Museum of Northern Arizona
National History Day
New Mexico Genealogical Society
New Mexico Library Association
New Mexico Society for the Promotion of History
Plateau Sciences Society-Gallup
Rio Grande Collections-NMSU
San Diego State University
San Juan Pueblo
School of American Research
Taos Historical Society
Tularosa Basin Historical Society
University of Arizona
University of Texas-Arlington
Volunteers for the Outdoors

While we have not been able to pay for advertising in other journals, we have tried other means to draw attention to the REVIEW.

Use of mailing list of a popular Santa Fe book dealer to invite readers to subscribe to the NMHR
Use of membership list of the Historical Society of New Mexico to gain subscribers
Continuation of the REVIEW institution-exchange update and sales campaign

Finally, we need to stress again how much we help the library and university through th exchange method. By a recent count, the university library receives 186 journals in exchange for the NMHR. That means the university saves at least $3,720 by utilizing the REVIEW for exchange. It also reveals how much other libraries are willing to use and read the REVIEW.

ACTIVITIES OF THE EDITORIAL STAFF

During the past year the editor contributed to and coedited a collection of essays entitled Faith and Imagination: Essays on Evangelicals and Literature (1985) and contributed essays and reviews to a variety of journals and other scholarly journals. Two other books are scheduled for publication in the near future. In the fall of 1985, he will serve as Hilliard Distinguished Professor of Humanities at the University of Nevada, Reno, and will lecture on the American West in Norway and India during the 1985-86 year.

The assistant editor, Sandra Schackel, a doctoral candidate in western history, has also been busy with scholarly activities. She has recently completed an essay on women's roles in Western films and has spoken before a variety of groups on that topic and other subjects dealing with women's experiences in the West.

In addition, Nancy Brown has attended several scholarly conferences--sometimes at her own expense--and in this way has contributed greatly to the scholarly focus of the REVIEW. Lynn Brittner, our editorial assistant, has worked most of the year in preparing an index of the last fifteen years of the REVIEW and has also read a paper on Indian vendors in Santa Fe at the state history conference.

FUTURE PLANS

These, of course, are in the capable and experienced hands of the new editor, Paul Hutton, who already has several plans to add to the growing strengths of the REVIEW. I predict that he will be able to make it the best-known state history journal in the West. I wish him well. I am certain ,too, that the administration will want to support the growing excellence of our journal. We are proud of its attainments and think the hard work of the last few years is paying off in the additional attention being given the REVIEW.

ANNUAL REPORT, 1984-85

Journalism Department

Robert H. Lawrence RHL

Chairman

A. Significant Achievements

The Accrediting Council on Education in Journalism and Mass Communication (ACEJMC) awarded accreditation to the entire department, for the first time since it was formed in 1948. It re-accredited the news/editorial sequence, and gave provisional accreditation to the broadcast sequence. Of more than 300 departments and schools of journalism in this nation, only 82 are accredited. Ours is the only journalism unit accredited in this state.

The provisional accreditation for broadcast is subject to review in the spring of 1986. Thanks to a $45,000 equipment allocation, made immediately after the ACEJMC team visited campus last October, the department was able to acquire sorely needed equipment for teaching purposes. The effect on student performance and faculty morale has been electrifying. We expect broadcast accreditation.

ACEJMC accreditation is based on peer evaluation by academic and working professionals from around the nation. We are naturally delighted to have received this accolade. It reinfor-

ces the professional nature of education conducted by this department. Again, as in previous years, our graduates have stepped directly into journalism or related fields in the city, state and around the country.

* * *

Establishment of the News Computing Journal by Asst. Professor D. Clarke Edwards and assisted by undergraduate members of the Society of Professional Journalists/Sigma Delta Chi, met with immediate, national, favorable response. Subscribers among major newspapers include the New York Times, Los Angeles Times, Miami Herald, Chicago Tribune, the television networks, many television and radio stations, and at last count more than 45 colleges and universities. The NCJ meets a scholarly/professional need on a quarterly basis, and is an applied research tool.

Unfortunately, a related class taught on an overload basis by Prof. Edwards must be discontinued. The personal computer for journalists' course used loaned equipment from IBM, based on the expectation a year ago that funds might be available to purchase the PCs at the end of the loan-free period. IBM was conducting field tests on new PC equipment and the department cooperated on the project. Given the lack of increased support to education, generally, in New Mexico, it seems inevitable that this and other courses tailored to enrich the curriculum will go by the boards.

* * *

United Press International will place its 3-meter receiving dish antenna on the roof of the Journalism Building under an agreement worked out June 26. The entire UPI report will be received via this antenna and then relayed by surface carrier to all other UPI clients in the state. The Journalism Department will receive free access to the report in exchange for site use. New Mexico, national and world news is used in journalism classes, and the UNM Daily Lobo uses the UPI report to flesh out its own staff-written reports.

B. Significant Plans

We hope, as soon as possible, to replace typewriter labs with personal computer labs. Virtually all newspapers and magazines, no matter how modest, in this nation now are equipped with personal computers used by reporters and editors to write and set type. The age of the linotypist has vanished in the last 10 years, even as the original reporter/printer such as Ben Franklin gave way to specialized mechanics. We have come back full circle to the colonial printer, in a sense: a PC, printer and makeup table give small entrepeneurs the same chance to launch publications once enjoyed by the new, journeyman printer with a shirt tail full of type.

Additional broadcast equipment will be needed, as state of the art developments produce less expensive, lighter and more rugged hardware. The department continues its early introduction

of broadcast and print writing and reporting skills to journalism students. Both skills have been needed for years by news wire service journalists, and Teletext expansion inevitably will produce a larger demand for properly prepared professionals.

C. Appointments to Staff

Ruth Ann Ragland, a 15-year veteran of the Associated Press, will begin teaching in August, 1985. As a guest lecturer in the past, and as AP supervisor for journalism students interning with the Associated Press, Mrs. Ragland has made a most favorable impression as a teacher-in-the-newsroom.

D. Separations from Staff

Mrs. Ragland succeeds Professor Tony Hillerman, a distinguished teacher, highly esteemed professional journalist and now an internationally acclaimed novelist. Professor Hillerman became the second chairman of this department after Professor Keen Rafferty retired. He plans to retain close ties with the department in an advisory capacity, when requested.

E. Research or Other Projects

Three of seven faculty members submitted proposals for grants from outside agencies. Except for the loan of IBM PC equipment (Section A, above), no grants were received.

However, a request made two years ago to the Albuquerque

Journal for scholarship assistance paid off. The Journal now is providing two, $2,000 scholarships yearly to upper division students, renewable on maintenance of a 3.0 or better GPA. Scripps-Howard provides an equal amount divided among 10 students and total scholarship assistance generated by the department is about $7,500 annually.

Robert H. Lawrence

Chairman

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