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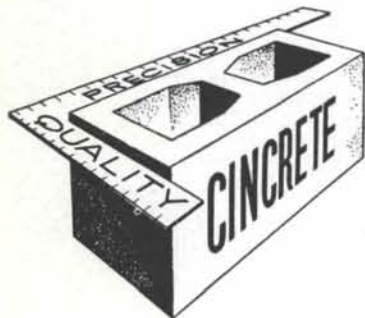
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Dear Mr. Bunting:

It was most interesting to read Mr. Popejoy's letter in the last issue of *New Mexico Architect*. Apparently there are two plans for the University — the consultants' and the one in the President's mind! Whereas the Warnecke plan has enclosed spaces (unfortunately out of scale), the President's idea does not call for them. The consultants' report talks in terms of "Spanish-Pueblo" style, the President, of "Modified Pueblo." Most of the buildings on the Plan are lineal in form and therefore ill-adapted in themselves to conform with the President's conceptions of "elevations with many different levels;" yet they are too widely spaced to "read" together as such.

Taos Pueblo, which is perhaps the personification of Mr. Popejoy's basic idea, has considerable charm and distinction. This is because its form is conditioned by centuries of a particular way of life. Much has been accomplished with limited means because the Indians have understood their building materials and worked within their limitations.

Unfortunately, the building materials, the spaces to be spanned and their function and scale are so entirely different in the University that modification of a tiny pueblo, housing a few hundred inhabitants with a simple way of life, to provide for university functions is a practical impossibility.

It would seem that the President and I are poles apart in relation to a plan for the University. Actually, we are much closer than would at first appear. Basically what Mr. Popejoy is after is an effect — massive walls and elevations with many different levels is his stated aim. However, he is thinking in terms of individual buildings whereas the University is actually a complex of interrelated buildings. If the growth of the University is carried out on an individual basis or following the Plan as it now stands, it will not mirror the President's intentions for they are the wrong means to the end. Paradoxically, it is by following my suggestions that the *UNM* will ultimately have the form the President desires. With a closer relationship of buildings, clustered around the center of the campus, the over-all effect will be that which Mr. Popejoy has in mind — and a very fine idea it is.

What is needed is a true marriage of this noble concept to professional expertise. But do the parties wish to wed or only carry on an elicit love affair? The former is the only satisfactory one, I think. If this is the University's intention, the marriage ceremony begins on page 16 of the *NMA*, Volume 4, Number 1.

Sincerely yours,
John M. Udy

P.S. My suggestions do not entail wholesale demolition, only judicious siting of new buildings is needed.

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ARCHITECTURAL

I have just finished reading a report* dealing with a subject of mounting interest to all citizens and of particular interest to architects. This report by Blair Associates deals with the preservation of individual buildings of architectural or historical merit in the city of Willemstad. It also considers the problem of the area-wide character of that city and of the Dutch Caribbean island of Curacao on which it is located. Several years ago Blair Associates completed a much larger and more comprehensive report on the Capitol Hill District of Providence, Rhode Island. That report which dealt with the preservation and development of the city's historical districts, is one of the handsomest area studies that I have ever seen.

While the present report on Willemstad is smaller in scope and intent, it nonetheless is well worth the required time to study its suggestions for they might well apply to similar problems here in New Mexico.

The city of Willemstad was first viewed from the appearance it now presents to the tourist and then its economic potentials were examined in terms of increased tourist business and expanded trade and industry. The report recognizes the Island's distinctive architectural character as a real asset for future economic development.

The urgent need to prevent further loss of valuable examples of Willemstad's architectural heritage is pointed out. Many of the older buildings in the principal tourist sections have had their street-level facades altered to the point of now having no architectural character even though the upper stories retain their original charming contours. Other architectural assets are being permitted to waste away. Thus a "bold and competent preservation and redevelopment plan for Willemstad should be undertaken."

While pointing out the value of individual buildings, the report stresses the need for the consideration of whole areas:

"In a large sense it is the relation of one building to another, the grouping and contrasting of structures along a street or around a square, and the contrast of one street when compared to another that creates in the visitor's mind the true image of distinctive character."

The report explains in some detail the objectives to be achieved by the establishment of historical district regulations. These objectives are summarized as:

- a. "Preventing further deterioration, despoilation and destruction of those important structures still standing;
- b. "Encouraging repairs and renovation of important structures to be carried out in the style and spirit of the original designs;
- c. "Guiding the design of new structures or the renovation of existing less important structures in the historical areas so that they will be in harmony with the historical structures and enhance the basic character of the area;
- d. "Retaining the over-all atmosphere, spirit and uniqueness of the entire community which depends upon the related grouping of buildings rather than upon individual structures."

The Blair report next outlines the regulations

CONSERVATION

needed to achieve these goals. Here I should like to quote from the report at some length as I feel that the suggestions outlined have much bearing upon our problems in this area. New Mexican readers will note that in contrast to Willemstad, the existing ordinances governing the Old Town Plaza area of Albuquerque and the Historical District of Santa Fe call for all new structures to copy predetermined styles but do little to prevent the loss of buildings of architectural value. If this report's suggestions are carried out such a mistake would be avoided in Willemstad.

"RULES AND GUIDES. Specific rules and guides can go a large part of the way in preserving important structures and the character of the historic district. There is some common ground in which judgments of style can be made. When reviewing past styles of architecture, there are available classifications, studies and descriptions of the orders or components of any particular architectural style. Thus, judgment of changes in older buildings which are to retain their style is relatively easy if a capable and learned architectural historian is available to make or assist in judgments under the regulations.

"The real problem, however, arises in the judgment of contemporary styles when compared to the old. As a general policy in drafting regulations, it is suggested that the important examples of architectural styles of the past be scrupulously protected from change. On the other hand, it is recommended that new buildings or renovations of unimportant older buildings be encouraged to be designed in contemporary style, but with materials, proportions, textures and colors that complement rather than conflict with the neighboring structures. In this way, the character of the community can be preserved, yet the growth and life of the island of today and of future generations can be reflected in architecture which will take its place side by side with that reflecting the life and times of the past.

"We have given consideration to the desirability of a specific listing of materials, design elements and proportions for new structures in the historic district, but we are fearful that strict application of such a list of rules might result in sterile and uninspired facades which catch the letter but not the spirit of the rules. As guides, however, new structures should retain the stucco, wood trim and tile roof color combination which is characteristic of all of the present styles in the historic district. Cornice heights should be set comparable to the principal existing ones for each street facade, but the administrative official or board should be authorized to vary these when necessary to permit the introduction of a major new bold form into the area.

"THE IMPORTANCE OF JUDGMENT. No matter how specific the guides are spelled out in regulations, the achievement of the most desirable results will depend on the person or persons entrusted with the administration of the regulations. This is particularly true of the judgment of con-

*The *DISTINCTIVE ARCHITECTURE OF WILLEMSTAD*, a report prepared by J. Stanton Robbins and Lachlan F. Blair; Blair Associates, Providence, Rhode Island, August, 1961.

temporary styles related to the old. In matters of architectural design, it is obvious that quite often the judgment of good or bad is dependent upon personal taste.

"In the United States historical district regulations are usually administered by a commission composed of from three to many persons of widely varied background. This is a typical method of interpreting regulations in America, but it is our experience that the effectiveness of regulations is often severely weakened because of this diffusion of responsibility. Important structures and architectural monuments have been lost because members of these commissions have been ignorant of the purposes of the law or lacked knowledge of architecture and history, or yielded to political considerations.

"Administration of these regulations is equally as important as the structural requirements and the standards for design of a building. This point can not be overstressed. For this reason it is strongly recommended that great care be exercised in selecting the persons to be concerned with administering the historic area controls. Ideally such persons should be well educated in the architectural history of Curacao as well as in contemporary styles. It is further to be hoped that such persons be dedicated by natural inclination to the preservation and protection of the architecture and culture of Curacao. The administrative procedures and guides for judging new plans can be spelled out in the regulations, but without such people in charge, the job will not be done."

The importance of the inclusion of a definite architectural inventory of each building in the historical areas as an integral part of the regulations is stressed. The report also suggests four categories for rating the relative importance of each building, ranging from "outstanding"—buildings which should be preserved at all costs—to "bad." It is envisioned that both private and government funds be used for acquiring buildings on the "outstanding" list.

Furthermore a "visual plan" or "design plan" is called for which should cover the historical areas of Willemstad. Such a plan would serve as a guide both to preservation and development. It should set forth a framework of proposals for action to enhance the form and to preserve the character of the area. This plan, of course, must be based upon the realities of economic possibilities.

Additional suggestions for building public support and providing interest includes such items as plaques, tourist trails with explanatory booklets, exhibits and the introduction of additional attractions within the historical district such as a museum, art galleries and a top-flight restaurant.

I should like to conclude with one additional paragraph from the report which I think sums up the philosophy of Blair Associates.

"... Preservation will work best if it is carried on hand in hand with building for the future. This is what makes the city a *living* museum; not just a collection of unused old buildings, but a place where people, conscious of their heritage, nevertheless create new forms to meet changing times. Only when they view the past in relation to the present and future can they learn to use old buildings for modern purposes,

and to create new ones so as to enhance, rather than detract from the distinctive character of the city."

—John P. Conron

INTERNATIONAL DESIGN CONFERENCE

Environment is the complex, often paradoxical aggregate of the physical, biological and social factors which influence us from conception to death—the totality of our experience. We can leave one environment, but only for another environment—perhaps similar to, perhaps drastically different from the one we left. But even the one we left will influence us in our new environment.

Environment is never static. It is changing continually. It modifies us and we modify it. With shortsightedness and stupidity, we sometimes have changed it for the worse—witness our ugly, congested cities and denuded, erosion-scarred landscapes. With courage, intelligence and vision, we have often changed it for better, both aesthetically and functionally.

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The 1962 Aspen Conference will run from Sunday, June 24 to Saturday, June 30. For further information refer to: John Conron, Box 935, Santa Fe, N. M.

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Three Santa Fe architectural firms have formed a collaborative under the name of Architects Associated. The firms: John P. Conron—David deR. Lent

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New Mexico Conference on Church Architecture

The New Mexico Conference on Church Architecture was held April 6 and 7. Scheduled at the same time as the annual meeting of the New Mexico Chapter of AIA, the conference was sponsored jointly by the state AIA., the Albuquerque Ministerial Alliance and the Department of Architecture of the University of New Mexico. Constituted in four sessions all day Friday and Saturday morning, the meetings were attended by some eighty persons. Prof. Don Schlegel, chairman of the Albuquerque Division of the New Mexico AIA., was in charge of the program and arrangements, and he is certainly to be thanked and complimented for his good work.

The Friday morning session was given over to ministers to express their ideas on church architecture. Moderator of the meeting was Rev. Donald Simonton of St. Luke's Evangelical Lutheran Church in Albuquerque. He had secured Rev. James F. Moore of Albuquerque's First Presbyterian church as keynote speaker and a discussion panel consisting of Monseigneur Rieffer of Las Vegas, Vicar General of the Arch Diocese of Santa Fe, Rabbi David Shor of Temple Albert, Albuquerque and Rev. Elbert Haines of the First Christian Church of Roswell.

The Rev. Moore's talk proved to be a keynote address in the true sense of the word for it raised questions and ideas that were to come up again and again during subsequent meetings. Highlights of his speech, some summarized and others recorded directly by means of a tape recorder, are here printed.

Church building in the United States topped one billion dollars in 1960. This is the equivalent of 92 million dollars a month or three million a day or two thousand dollars a minute. In 1946 the magazine CHURCH MANAGEMENT had thought that the 76 million spent that year could not possibly be sustained across the years. Reasons for this enormous increase in building expenditures are: increased membership, higher income of church members, movement of the population to the suburbs, larger number of children per family than formerly, tax policies of the federal government, what Thorsten Veblen called "conspicuous consumption," and a spirit of competition between various denominations.

These billions, according to Rev. Moore, are *dedicated dollars*, i.e., they represent a conscious election on the part of church members to construct new buildings rather than to further other aspects of church work such as: feeding the hungry in the Orient, providing for foreign relief through Jewish Welfare, Catholic Welfare or Church World Service; furnishing needed scholarships at colleges or seminaries; constructing local hospitals.

Prof. Theophilus Taylor of Pittsburgh Theological Seminary and former Moderator of the Presbyterian Church was cited as having observed that *one of the architectural paradoxes of our time is that for an institution which has been justifiably recognized as a patron of the arts, the Church has erected a higher*

proportion of monuments and monstrosities to house its life and activity than any other comparable institution in society. Nowhere on earth is this paradox thrown into sharper focus than on the American scene Many of the edifices erected were monstrous in their failure to be guided by canons of beauty, honest construction and usefulness. In Rev. Taylor's estimation, the form of a church building should bear some definite proportion to the nature and function of the church. The lines a church building takes should grow out of its very inherent nature.

What does the church look to the architect to supply? According to the keynote speaker, churchmen look to the architect to build with more in mind than merely enclosing space or putting a roof over the heads of worshipers. They look to him to tell them, out of the welter of suggestions that come from members of building committees, which ideas are worthy. He is to tell them what they can fairly do and what they can fairly hope to do with the plot of ground, which unfortunately most churches have bought before they ever thought of hiring an architect. They look to the architect to tell them whether to scale their dreams down in terms of size and to have a decent small church with multiple small services rather than a monstrous barn. They look to him to ask them questions, to ask what kinds of activities, what kinds of people, what multi-purpose uses will be made of the spaces. They look to their architect to be honest with the city ordinances since some of the things that churches might try to do under pressure of budgets are not honest and the architect should be willing to tell them so. In short, the churches look to the architect to give lines to ideas, to draw lines that are functional and that say something.

We have built churches, opined Rev. Moore, which look like fortresses with fighting going on within the walls rather than a place where the Lord's army is renewed and refreshed for going out into the world. We have built churches that look like funeral chapels as though the churches were engaged in some lament or dirge that God is dead. We have built churches like monuments to the memory of Dr. Brown, pastor of the church for 25 years, and churches to the memory of Smith or Jones but not necessarily to the glory of God. We have built churches where the cloistered effect is so pronounced that the worshipper can forget that the church is part of the world, or where the accent is so strong on the personality or role of the preacher that even God is obscured. We have built churches where the investment in building and equipment is so massive that it places a tremendous burden of maintenance on those who survive the building program. We have built churches where impressions of costliness and expenditure and magnificence are so strong that the building becomes an end and not a means; people are tempted to worship the building, to glorify the building as an end in itself. And we have churches where pastors must spend a strong proportion of their

time and strength in cranking wheels to make payments on the building. All of this fragments their time and causes them to leave undone the essential things for which God called them to minister to people.

The Rev. Moore felt that there is nothing creative about "protest architecture." He quoted the architects of the famous "Fish Church," built by a Presbyterian congregation in New England as saying, *when you have plodded through all from the beginning — the human needs, the floor plan, the structure — you still must get an emotional reaction.* But Rev. Moore raised the question of whether history would regard this kind of building as a worthy expression of man's desire to build a fitting house for fellowship with his Maker, or whether she would see in it something of the restlessness and uncertain protest of our times.

Sometimes the architect is given too much latitude and freedom by congregations who feel that they must not be bound to archaic and Middle Aged forms but who have not really evolved for themselves principles that will guide their new forms. Such an instance was that of the new church building whose unusual aspect was due to the fact that the theology of the architect was years ahead of the congregation's. Or there was the clergy-member of a panel who plead with designers *give us a new form of architecture and we will adjust our services of worship to fit it! Is not this, Rev. Moore asked, putting the architect in an untenable position?*

Finally, speaking directly to architects, Rev. Moore summarized his view of what one who designed a great church edifice would attain. *I hoped that you architects could create the kind of a church that doesn't need a sign to proclaim that this is a building designed for the glory of God and the service of mankind. I hope that you could create the kind of building that people are proud and happy to show to their friends as being a place where inspiration is found and where fellowship is expressed. I hope you could create the kind of building in which people could feel that they were participating in an act of worship, not just watching a performance put on for their approval. I hope that you could create a space in which people feel that they are caught up in unity, one where he feels he is a member of a synagogue, a congregation not an auditorium where people come merely to hear or a theatre where men come merely to see. I hope that you could build a building where the noise of the highway is shut out but where men do not shut out an awareness of the world. I would hope that you could create a church in which the separation of clergy and laity within the service is merely one of function. I would hope that you architects could lift the cross out of a mere decorative sense, above something built into the church for mere adornment or decoration.*



Before opening the discussion to questions and comments from the floor, the three panelists had an opportunity for brief statements. Mgr. Rieffer, in his capacity of Vicar General for the Arch Diocese, has had

opportunity to see and use many new Roman Catholic churches. He was critical of much of the recent building. Not that a churchman-architect always builds a successful sanctuary, still too often the architect does not appear to have a knowledge of the beliefs and sacraments of the church for whom he was designing. He also felt that parish priests had been responsible for many architectural mistakes committed in church building. Mgr. Rieffer exhibited particular enthusiasm for a round church with the altar in the middle where the congregation could be gathered on all sides. This would lend greater intimacy to the Sacrament and obviate the need for loud speakers to carry the priest's voice to remote parts of the church.

Rabbi Shor began his remarks with an exaltation of the Temple at Jerusalem from the Old Testament: *Behold, the Heaven of Heavens cannot contain Thee; how much less this house which I have built.* This he felt indicates a direction for those who build synagogues and churches even today. *Our houses of worship are not meant to lift the worshiper up to God.* He went on to say that the sanctuary, which is the most important part of the edifice *must speak a variable language, must say many things to many people. The architect must do with the sanctuary very much what the minister does in his daily life—visiting the sick, consoling with the bereaved and then going immediately to a wedding and entering into the joy of it. But this cannot be done artificially; it must be done from the heart.* This creation of a building capable of many uses and moods is the most difficult task which faces the architect. Had this point regarding the versatility or adaptability of the church to the varying needs of the congregation been kept in mind, some of the later deliberations of the conference would have been clarified and shortened.

The Rev. Haines spoke last. He reminded the conference of the congregation-centeredness of the church. Such mechanical operations as voice projection and acoustics were important if they were not to distract the worshipper. A correctly appointed auditorium could do much to assist the worshiper to participate in the service.



Adjourning to a private dining room at the New Mexico Union for luncheon, the conference resumed at 1:30 for a talk on the history of church architecture by Dr. Bainbridge Bunting. Stalking up and down the centuries of Christian church architecture by means of colored slides. Prof. Bunting demonstrated that there was no one solution to church building, that each era had produced a church form that accurately reflected its beliefs and religious needs. Thus the Early Christian basilica was a place to come together in the presence of God, a sanctuary in an often hostile world. The early churches, therefore, were an enclosed space, inward-centered, as opposed to worship in open courtyards in pagan practice or in Hebrew worship. The particular relation of apse and aisles evolved to meet the dual requirements of congregational worship (instruction, prayer, singing) and the celebration of the *agape*, the commemorative love feast. Had the cult consisted of only one of these functions, the early church building

would have evolved a very different plan.

By the Gothic era the church's position was completely assured. From its inconspicuous external appearance in Early Christian times, the church now changed into the dominant structure of the community. Cult symbols, rather than being hidden away on the interior of the church, were blazoned on brightly painted and sculptured exterior doorways. Instead of its inward concentration, the church now expanded outwardly; its vaults pushed upward, its stained glass windows ceased to contain the interior space. The cathedral building was made as precious and beautiful as became the House of God, but no attention was paid the physical comfort of the worshipper who was merely dwarfed by the magnificence of it all.

Renaissance church architecture was more concerned with abstract aesthetic problems than with the glory of God. In order not to dwarf the individual in uncertain and indefinite space, the spatial limits of the Renaissance church were defined quite clearly. Man's intellect was always in control of the situation.

The Reformation and Counter Reformation found Christians fighting their battle with pictures and statues and architectural forms as well as with theological tracts and sermons. Stands taken by Protestant or Roman Catholic forced the contending party into extreme positions of opposition. That struggle was as much a matter of blacks and whites as today's political controversy. The full Baroque church of the Counter Reformation sought deliberately to overwhelm the worshipper and by means of the physical senses to imply the immaterial and infinite. Protestants, in reversion to Hebraic origins, banished the graven image and proceeded to develop a compact church auditorium that was sermon-centered rather than ritual-centered.

Today's churches have learned the importance of rooms for church school and social purposes, thus indicating yet another turn in the interpretation of the Christian church. No one of history's solutions can be said to be THE solution.

Mr. Bunting made two other points. Noting the present conference's acute dissatisfaction with churches designed in the past and even the recent past and the optimism that churches of the future would surely be better, he observed that even these "better" efforts of the future would in their turn come in for criticism and ridicule. This is the nature of history.

The other point was that for many centuries the design of Christian churches was an anonymous process, not the work of a single genius. The Early Christian basilica was slowly evolving during the first centuries of persecution. By the time of Constantine the basilican form had emerged. Even the Gothic cathedral is the design of an unknown master builder and the work of swarms of anonymous masons and laborers. Since the Renaissance, when self-conscious aestheticism began to emerge, church design has become increasingly a matter of individual decision. But as architecture has become more individual, it has evidenced less and less unity. Changes in lines of development have become abrupt and the growth of the tradition has become sporadic.

As we face the future with its increased reliance upon individual selection among increasing numbers of alternatives, our church architecture will evidence ever greater disagreement. We seem to be working away from a unified tradition toward greater and great-



er chaos. This is a sad result of self determination, yet modern man cannot abdicate his responsibility to make decisions and to chart his course to the best of his abilities. We cannot return to the anonymity of the past, however beautiful and reassuring it might appear.

The second talk of the Friday afternoon session was given by Dr. David Gebhard, Director of the Art Museum, University of California at Santa Barbara, and a practicing architect. We might note in passing that this speaker was recently a Fulbright lecturer on architectural history at the Technical University in Istanbul. Dr. Gebhard's talk seemed to tie together many of the attitudes and points of discussion which had come up earlier in the day. Even though the various speeches had been written quite separately, there were central themes running through them with amazing consistency.

Dr. Gebhard began by observing that *within the past sixty years historically significant buildings have undoubtedly been constructed for religious use. Some of these constitute major monuments of the modern movement in architecture. But I frankly wonder if these buildings are religiously significant?*

With this in mind we might well separate some of the basic factors which enter into a typical church building. In this way we shall be in a better position to analyze that element of architecture which may lie close to the whole phenomenon of religiosity and that which is something else. I think that within the design of a church structure, whether it be from the Romanesque period or from our contemporary world, there are many other considerations which may far outweigh that which is purely religious. Psychological considerations may very well enter into the design of the building. The architect uses various devices of space and of articulated surface to impress the beholder who is participating in the ceremony. Then too, there are various psychological and social and economic factors which the architect and his client, the church, almost always bring to bear on the final building. And finally there is that which is fundamentally aesthetic.

I am not sure that it can ever be solved fully. When you have a concentration on these other factors—the aesthetic, the economic, the social and the psychological—I wonder whether the religious can actually come out?

Speaking of recent attempts at church design, Dr. Gebhard observed that *since 1945 the picture has changed radically. The battle between eclectic and modern architecture no longer rages since no one any longer takes eclecticism seriously. Yet the church architecture which has developed over the past fifteen years does not present a unified point of view. In looking over the architecture of this recent period, I would say that we have five major points of view represented. These can be classified as: 'Academic Internationalism', 'Organicism', 'The New Brutalism', 'The New Constructionalism' and 'The New Sensationalism'. These last three have become important only in the past six or seven years.*

All five classes can be redivided according to two basic approaches to the architectural problem. One of these we can think of as an unconscious approach where the designer and client are willing to let the building recede into the background. Opposed to this are those who insist that the building be quite dominant, that its architectural character be self-assertive.

Discussing the assertive "New Sensationalism," Dr. Gebhard said, given a world which is conditioned to American advertising, which has produced a jaded sensationalism, which loves change and that which is merely different, which follows the new for the sake of newness — given such a civilization is it surprising that we have this 'New Sensationalism' in architecture?

Even the Church is affected by this skirmish for men's attention, this attempt to attract the attention of the individual. Perhaps a legitimate case can be made for this sort of thing. Where we do exist in a world where the individual has things pulling him in all directions, the Church also feels the competition of other areas of activity and it is perhaps only natural that it responds by bringing forth its own type of sensationalism. In some cases the sensational church buildings have adequate and admirable architectural principles stated in them, but this is not always so.

I recently heard a talk on the West Coast by the British art critic Sir Kenneth Clark. This eminent critic raised the question of whether we can develop a significant architecture, especially in the realm of religious building, when the age is as self-conscious as ours. The very fact that art criticism and art history has developed as it has in the twentieth century seems to bear out his point. I wonder if the contemporary architect can fully realize a building which meets today's religious needs?

But the architect himself is not wholly responsible for the recent changes in church design. Also involved in its changing design are the congregation and minister. It is evident that American churches have tended to concentrate more of the space of the edifice on its secondary aspects (the educational and social wings) rather than focusing upon the auditorium with its liturgy which is the center of the church. I am not sure that this is entirely a legitimate approach and whether this is not arguing that the church as a religious institution is not giving way to the church as a purely social institution.

In summation he said, perhaps it is too pessimistic a conclusion, but it seems to me that contemporary religious architecture cannot reach its proper achievement until there has been a theological recovery within the church body itself, a theological recovery of what the true meaning of the church is and should be.



Friday evening's banquet in the Desert Room of the New Mexico Union was followed by an entertaining and instructive talk on stained glass windows by John Tatschl of the UNM Art Department. Prof. Tatschl, who has worked in stained glass for a dozen

years, has spent his last two sabbaticals studying and experimenting with the technique in Vienna.

Speaking first of windows in Medieval churches, Prof. Tatschl observed that in essence all that stained glass was, was a light filter between the sunlight and the interior of these houses of worship. He discussed briefly the history and design of early windows. But the most interesting part of the talk consisted in a step by step explanation of the making of a modern window. As the case in point, Mr. Tatschl used the windows he made between 1953 and 1956 for St. Michael and All Angels Episcopal Church in Albuquerque.

What is needed first is to find somebody who is willing to buy the stained glass window. This is the most difficult part in all stained glass work! But even after that the procedure sounds complicated enough. Mr. Tatschl illustrated each of the painstaking steps with color slides. First came the design of the whole window and a full scale cartoon which takes into consideration necessary supports for wind pressure and weight. The over-all window must be subdivided into a number of large but manageable panels which are structurally self-sufficient. After the design of the whole window is established, one considers full size details of each figure and each object. These details, Mr. Tatschl humorously added as an aside, I seldom show to the client for fear of frightening him off by a not-sweet-enough Jesus face. Two more full-size drawings must now be made. One drawn on very heavy paper records the color and a number for each individual piece of glass in the entire window. The other drawing is cut up to serve as an exact pattern for the cutting of each piece of glass. (Note: in cutting both pattern and glass be sure to allow for the space of the lead "comes" which fit between the pieces of glass, and be accurate in your cutting for just a few mistakes of even a millimeter when accumulated will mean that the glass panel will not fit the opening).

The pieces of cut colored glass are now fixed by means of hot wax to a large panel of clear glass so that the effect of the colors upon one another can be observed; sometimes the interaction of colors are disquieting and certain pieces have to be replaced in a different color. The necessary details of faces or drapery, etc., are now painted on the glass with a black iron oxide — this process constitutes the only real "staining" that is done. The glass must now be fired to a temperature high enough to fuse the iron oxide to the glass but not so hot as to melt the glass.

Next comes the final fitting-together of the thousands of pieces of cut and stained glass. Each piece is laid over the cartoon in its proper place. If all are accounted for, the artist commences the arduous process of fitting the glass pieces together between the "comes" (strips of H-shaped, lead moldings). Where came strips come together, the end of one came encasing the glass must be pounded flat in order to fit inside the other came. This can be the most frustrating job of all as one false blow of the hammer can shatter the cut and painted and fired glass. The intersecting comes are further secured by a spot of solder. Last comes the actual installation of the large but manoeuvrable panels of fitted glass. Fixed into a metal frame of their own, these panels are secured to the window frame and wind bars.

In closing, Prof. Tatschl spoke of the extraordinary versatility of a stained glass window. Seen in differing

exterior light conditions, the same window can take on an infinite number of aspects. One other thing is important. A window loses much of its brilliance if another source of clear light is introduced into the room's interior. This causes a dulling and greying affect upon the denser colored light which has filtered through the stained glass.

The Saturday morning meeting of the Conference consisted of an informal exchange of ideas and problems by ministers, members of church building committees and architects. This meeting, held in the Faculty Lounge of the Union, began with ten minute statements by four architects on various stages of church designing.

John Udy, member of the Albuquerque Planning Department, spoke on the relation of the location of the church building to the over-all city plan. He advocated the grouping of churches of the various denominations into ecclesiastical centers with provision for a special zoning classification for them.

Next came three AIA members on the various phases of church design. Walter Gathman of Albuquerque outlined the factors in master planning the church site. Richard Milner of Albuquerque spoke on programming the church building. And John McHugh of Santa Fe discussed the problems of developing the church plans in cooperation with the minister and the church building committees.

The most spirited parts of this session concerned the role and purpose of zoning and of the function of the architectural departments maintained by several of the denominations. A final luncheon closed this most interesting conference.—*Bainbridge Bunting*

Photograph — Jean Rodgers Oliver — Window, John Tatschl



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In the valleys along the west slopes of the Sangre de Cristo mountain range, men have been constructing permanent buildings for seven hundred years. Leaving aside the formative stages of Indian architecture and considering within this study only structures of which standing remains are evident, four distinct periods of building can be distinguished: Indian, Spanish Colonial, early Territorial and later American. As significant monuments of each period survive in the Embudo area, the purpose of this sketch is to point them out and to describe the main characteristics of this architectural evolution. No attempt is made here at a complete inventory of the district's architecture.

According to legends of the Picuris Indians, their pueblo was once the largest and strongest of the Pueblo communities along the Rio Grande. Although today greatly reduced in numbers and the present pueblo consisting largely of recent structures, portions of the village date back to the period before the Spanish conquest of 1598.

Rooms from this early era are characterized by two important features. One is the use of "puddled adobe" masonry. This type of wall is laid up in two-foot-thick courses and shaped by hand; each course must dry thoroughly before the next layer is added. The technique of making adobe brick was a Spanish innovation in New Mexico. The other unusual feature of the early Indian building is the method of supporting the center beams for each room on a post set in a basin-like hole in the floor. These depressions, out of the center of which rises the post, are sometimes round, sometimes irregular in shape. Interestingly enough, similar dish-like holes with the stubs of center posts have lately been found in the excavations of a fourteenth century pueblo in the Pot Creek area eighteen miles north of Picuris. Recent construction at Picuris is indistinguishable from that of Spanish or Anglo builders in other parts of the valley.

The first century of Spanish domination in New Mexico seems to have left no tangible remains in the Embudo watershed. The small Spanish population of the province huddled in constant fear of Indians in small communities along the Rio Grande. Also the

Pueblo revolt of 1680 destroyed to a greater or lesser degree all structures which the Spanish had built. Some of these could be renovated by the returning Spanish after 1692, but other than a few mission churches, no buildings anywhere in New Mexico retain more of their pre-Revolution form than a few fragments of walls.

Following the Pueblo rebellion, Indian danger continued, but it now came from nomadic Utes and Apaches rather than Pueblos. In northern New Mexico serious Indian danger continued until the 1860's when the U. S. government constructed several military forts in the area. But despite this threat of Indians a few Spanish farmers, impelled by land-hunger, had begun to move into lateral valleys off the Rio Grande by the mid-eighteenth century. Parts of the Embudo watershed were settled by the 1740's.

When a settlement such as Trampas or Dixon was made in one of these out-lying valleys, precautions had to be taken for defense. Although no examples of defense architecture survive unaltered, one can surmise several of the solutions which these early settlers devised. A wealthy family could afford a house and barn that enclosed all sides of a patio. With exterior walls devoid of openings, save for a main wagon gate, all rooms opened directly onto the patio. A second solution would be for several small householders to build around a common patio and share in defense. Or, thirdly, a defense tower could be built with a round, masonry lower story and a polygonal-shaped upper story of logs.

In the Embudo watershed no patio-centered dwellings survive today. Although the land holdings in the area are today too small to support seigniorial establishments, these may once have existed. The New Mexican tradition of dividing both the ancestral house as well as the land among heirs has militated against the survival of large establishments. Given the ups and downs of family fortune, it is not unusual to find a once-large house surviving in three or four stages of repair or desolation (see Fig. 7). One part may be well cared for, supplied with a water-tight tin roof, plastered with cement and the windows fitted with steel casement. Another suite of rooms may be decrepit



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Fig. 2 Torreón, Dixon, N. M.



Fig. 3 Church at La Placita, N. M.

but lived in; yet other parts of the original house may be quite abandoned, walls eroded and roof caved in. Ofttimes portions of the house have disappeared entirely and the visitor is only aware that they once existed because of the alignment of walls of adjacent buildings or through the presence of a terrace-like mound of earth created by fallen adobe walls or roof.

The village of Dixon in the lower Embudo valley is important because it retains to some degree the form of a community built tightly around a plaza for defense. The small individual houses are contiguous so that the continuous line of exterior walls could serve for fortification. Later modifications of these houses have cut doors and windows in the exterior walls and thus changed the character of the architecture so the visitor is not immediately impressed with the once-defensive nature of the compound. On the south side of Dixon almost half of the compound's houses have been removed to make way for conventional stores. But reminiscent of the village's early defense precautions are two *torreóns* which stood near the corners of the compound. One of these towers is reduced to a mere foundation; the other, still roofed, is decaying as a pig sty (Fig. 2).

Unquestionably the most important and best preserved monument of the Spanish Colonial period is the church at Trampas, San José de Gracia. Constructed between 1760 and 1776 of adobe masonry and covered by an adobe-packed roof, it is a "text book example" of mission architecture in New Mexico: compact, geometric mass; restricted fenestration plus the transverse clearstory above the roof of the nave; a plan which clearly articulates nave, transepts, polygonal apse and provides a choir balcony and baptistry; nave spanned by vigas which are supported on elaborately cut corbels (Fig. 5). The basic features of these mission churches derive from the sixteenth century "fortress churches" of Mexico even though modified by the limited technology and economy of the new area.

The characteristic church type of Trampas is repeated in a smaller, later edition in the charming little church at El Valle and the small chapel on the Santa Barbara River near Rodarte, now reduced to ruined walls. But the New Mexico heightened ceiling over the altar area is retained for architectural emphasis in small churches like Vadito even though the transverse clearstory, the original reason for the stepped-up profile, has been omitted.

A second and smaller church type, rectangular in shape with a circular apse, was used in the Embudo basin for both churches and Penitente chapels. The

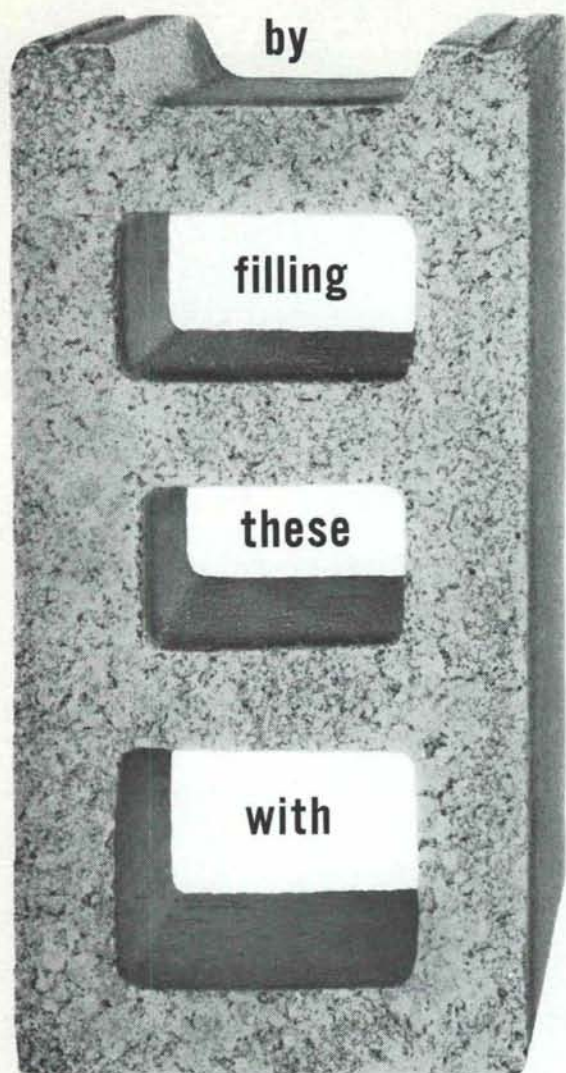
original flat-roofed form of this simple type is found in the *morada* at Llano de Peñasco. Here windows are very small and the entrance is on a side wall as usual in *morada* design. This building type is also repeated in the village churches at Rodarte, La Placita de Peñasco, Vadito and Apodaca (Fig 3). Equipped here with a relatively steep corrugated iron roof which becomes conical in shape to accommodate the circular apse, these churches are provided with larger windows, a wooden floor and a regular axial entrance.

Early in the present century new parish churches were built in several communities, perhaps at a time when the Roman Catholics were feeling the competition of Presbyterian mission activity. These nondescript late churches retain none of the traditional forms of the valley. Protestant construction was no better, as indicated by the church at Chamisal.

The disappointing fact of New Mexico's domestic architecture is that outside a few Indian pueblos, there are no very old buildings left, at least nothing survives which retains its original appearance. Sections of old adobe walls—even whole rooms—may survive, incorporated into recent buildings. But these surviving fragments retain nothing of their original character except exaggeratedly thick walls. The reason for this absence of old buildings lies in the material used. Adobe is the most fugitive of materials and adobe edifices are in a continuous state of evolution. The earth loaded on wooden roofs to keep out rain and to provide insulation is so constant an invitation to decay that a roof, unprotected by water-proofing (a relatively recent innovation in New Mexico) will rot out and require replacement at 50 to 75 year intervals. Adobe walls erode from both wind and rain and they are particularly vulnerable at the ground line, where ground moisture causes more rapid erosion than elsewhere. With constant attention, however, an adobe edifice can last for hundreds of years, as rooms at Picuris pueblo or some Spanish churches attest. But with the changes of family fortunes, extremely few houses have had the continuous care necessary for preservation. After a generation of neglect, an adobe structure will have disintegrated beyond the point of repair. The other deterrent to old adobe houses retaining their original character is the great ease with which they can be remodeled.

Given the fugitive and plastic character of adobe and also the fact that adobe brick made in 1940 with mud from the same clay bank will look indistinguishably like brick made in 1840 or 1740, there is discour-

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Fig. 4 House near Rodarte, N. M.



Fig. 5 Church of San Jose de Gracia, 1760-76, Trampas, N. M.

agingly little internal evidence within an adobe building itself to indicate its history or original appearance. But on the other hand, the technology of New Mexico throughout the Spanish and Mexican periods was so constant that it is unlikely that any striking changes took place in the architectural forms. Thus even though we lack well-preserved dwellings dating from early periods, we can turn to structures built late in the nineteenth century for a good visual picture of what the earlier edifices probably looked like. The Vasquez house, hidden away in the mountain-locked valley of Ojito, comes as near retaining the look of early houses as anything left. Built originally in a U-shape about a court, more than half the building has melted away, leaving only three rooms. Windows are few and small and woodwork crude. Other buildings of early appearances are houses in the northeast corner of La Placita's plaza (Fig. 6).

The simple beauty of this architecture can be seen in a series of six houses strung along the north bank of the river at Trampas (Fig 1). Modern windows were never punched through the north walls of these houses, most of them owned by members of the Lopez family and in excellent states of preservation, and they retain the old-style flat roof. But best of all are the splendid adobe-plastered walls whose basic geometry is only relieved by their gently undulating surfaces and contours.

Though there is no change from the basic adobe and wood construction of the Spanish period, the decades following American intervention in New Mexico show signs of architectural change in three ways. First, villages began to string out along roads, a dispersal that began as soon as the U.S. Government brought the Indians in the Sangre de Cristo mountains under control. No longer forced to cluster together in villages for mutual protection, farm houses were built nearer the fields. Nor did these free-standing edifices have to have windowless outside walls for protection.

Secondly, new Yankee-built sawmills began to turn out quantities of sawn lumber which were used for gabled roofs, plank flooring, porches and wood trim. The Yankees also brought good steel tools to shape and ornament this lumber. Though the Spanish had iron tools, they were scarce and expensive after the hard and dangerous haul from Mexico. Cheaper wood and tools resulted in paneled doors, louvred or paneled window shutters, and elaborately molded window and door casings. The old *portal*, instead of its simple log posts and crudely profiled corbel blocks of Colonial times, is now composed with squared posts to whose top and base have been nailed strips of moldings to imitate capitals and bases (Fig. 7). Interior woodwork becomes more plentiful, especially for wood encasements for fireplaces. The pitched roofs that replaced the old flat ones were at first covered with wooden board and batten; later limited quantities of roof covering called *terneplate* (small sheets of iron covered with lead) were brought over the Santa Fe Trail. Not until the railroad arrived in 1880 did the ubiquitous corrugated iron roofing begin to be used.

The third notable architectural effect of Yankee annexation is the presence of window glass in the Territory. When glass had to be carted 2000 miles by ox-cart from central Mexico, it was all but unused; when Santa Fe traders could get glass by wagon train or even better by railroad, it was utilized immediately. Houses built after 1865 have larger and more numerous openings. And since openings can so easily be cut through existing adobe walls, many old houses were supplied with new glass windows. This is another major reason why so few structures of Colonial appearance are preserved.

If he looks carefully, the historian will also note that Yankee architectural notions now began to filter into the Territory along with Yankee tools and window

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Fig. 6 Ruined house, La Placita, N. M.



Fig. 7 House north of Trampas, N. M.

glass. This new fashion is announced by such details as pedimented lintel, and wood moldings that have a somewhat Classical quality. Belatedly and very simply such details recall the Greek Revival style which had flourished forty years earlier on the Atlantic seaboard. In other parts of the Territory, the new style is provided with a wall capping of kiln-burned brick, but this feature, which protected the tops of adobe walls from erosion, is absent in the Peñasco area, largely, one supposes, because of the prevalence of gabled roofs which served the same function. The Greek Revival accent is admittedly a superficial detail and old houses could quite easily be "modernized" by the addition of a little wood trim. The Territorial style, as this provincial version of the Greek Revival is called, did not appear before the 1860's in New Mexico and there is no surviving trace of it in the Watershed before 1870.

It is in this period that the domestic building of the Peñasco area begins to be of considerable architectural interest. The house type that still dominates the region emerges: a long, strung-out edifice, covered by a ridged roof of tin and preceded on its front by a narrow *portal* which is usually as long as the house. In plan this house is merely a sequence of rooms which can be added to or partitioned off according to family requirements. This single file of rooms may sometimes turn into an L. No patio-centered house can today be found in the area, though it may at one time have existed; nor do any residences evidence the formality of a central hall plan that is sometimes associated with Territorial style trim in Santa Fe or Taos.

The finest example of late nineteenth century Territorial architecture in the watershed was the Policarpio Romero house in Peñasco. Constructed, as nearly as one can tell about 1870, much of the house was demolished in 1935 for a highway right-of-way. The remaining sections, empty and vandalized, melt away year by year. The splendid *portal* that still stands once opened onto one of the three courtyards. The most handsome feature of the house is the intricately paneled double doors of the *portal* (Fig. 8).

The villages of Rodarte and Llano, situated above Peñasco, are still full of similar cut-out and paneled doors (Fig. 7). This work appeals to the collector and many examples have been carried off to Santa Fe and Taos, but enough remains to give evidence of the vital folk art tradition which once flourished in the area. Far from the sobriety of carpenters handbooks on Greek Revival, this work has an irrepressible spontaneity. Starting with a few basic themes, the imagina-

tions of the local craftsmen then wrought upon them an infinite number of minor variations.

Enough of this work remains to demonstrate also how the details of woodwork vary from one community to another. Each locality seems to have a particular repertoire of forms of its own and their distinct local character would seem to be due to the fact that a specific craftsman had worked in the area. Good examples of this are intricate paneled doors in which rectangular panels alternate and fit together with panels of looping, ogee form or with such fanciful and non-architectural shapes as pointing hands, figure-eights or stars. The variations are as infinite and ingenious as a true folk expression can produce (Fig. 9).

That this folk tradition continued to a relatively late date is indicated by the work of Alejandro Gallegos who still worked in Llano de Peñasco during the first quarter of the present century and died in 1935.

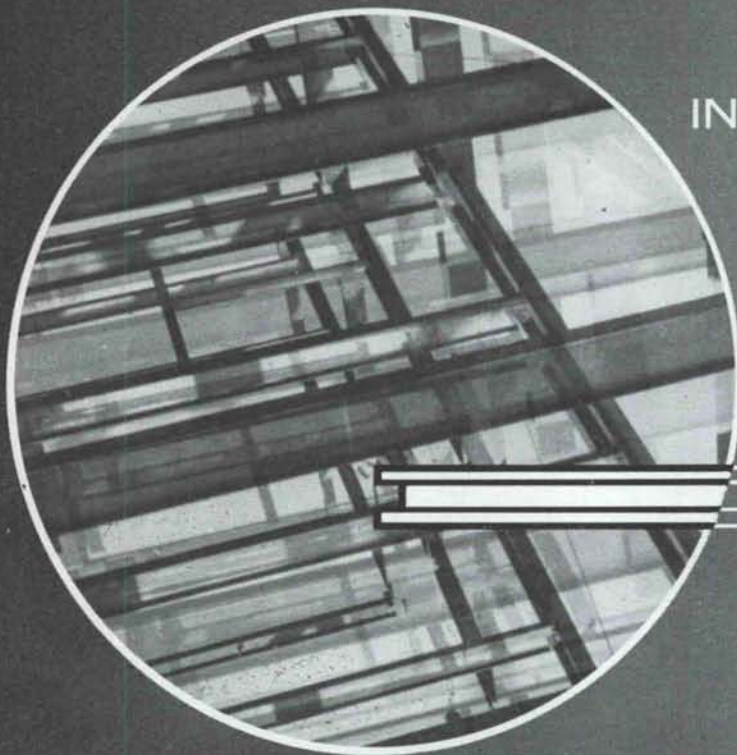
Related to this carpenter folk art, if not directly to architecture, are elaborate wooden constructions for cemeteries. Consisting of intricate crosses for head pieces, fencing to surround the grave and very large crosses for the center of the plot, this work, alas, is rapidly falling prey to decay and curiosity hunters. The best preserved examples are in the cemetery near El Valle (Fig. 10).

From this Territorial period come also a series of interesting water-driven grist mills. Housed in simple log structures set firmly on substantial but uncemented stone foundations, these buildings are of no great architectural importance. Historically, however, their interest is considerable. Conveyed in an overshot flume, the water plays against a horizontal water wheel whose axle directly turns the millstone in the grinding room above. The heavy log floors of these mills are plastered with hard adobe to prevent the loss of grain through cracks. Three of these mills in the watershed retain their mill wheels and grinding equipment. One mill, owned by Lorian Cordova of Rockwall, N. M., was still in operation during the autumn of 1961 (Fig. 11). Several other mill structures but minus grinding equipment are also to be found.

During the last two decades villages of the upper Embudo watershed have not suffered the economic and population decline that has affected so many rural areas in New Mexico. The reasons for this phenomenon are currently under study by different subcommittees of the Interagency Council for Area Development. This relative prosperity has meant that buildings in the area have not been abandoned to the extent that

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Fig. 8 Door of Romero house, c.1870, Penasco, N. M.



Fig. 9 House near Rodarte, N. M.

has happened in many communities; indeed there has even been some new building.

The interesting thing about the construction of the past twenty years is that it retains a degree of local character which, though not distinguished, at least differentiates it from the anonymous highway-side architecture that one encounters endlessly in New Mexico. This local character is only a matter of a few details—and not very handsome ones at that—yet one is grateful for the slight variety which they offer.

The most obvious feature which the folk art enthusiast will notice is the series of exterior murals extending over the whole front and side walls of bars. Usually these represent mountain scenes with peaks, sunset skies, cascading streams and furtive deer. A rather simple calendar art, it is true, but homespun and a welcome relief from the standardized blight of Coco-Cola signs—even though the realist might point out that most of these bar murals advertise a brand of beer.

The other local characteristics are more architectural and one wonders the more at their widespread popularity because they are so ugly. Such a detail is

the heavy diagonal channeling carved on the four faces of front porch posts which give the effect of a clumsy spiral. Often these are varnished to make them even more conspicuous. The second feature is the clipped gable end, which at its peak and with considerable structural complication, turns the gable into a hipped roof. Such details illustrate yet again man's instinctive need to beautify utilitarian objects by the expenditure of additional labor. —Bainbridge Bunting

For an over-all view of the culture of the Embudo area see A PILOT PLANNING PROJECT FOR THE EMBUDO WATERSHED OF NEW MEXICO, published by the Interagency Council for Area Development and the New Mexico State Planning Office, May, 1962. The PILOT PLANNING PROJECT drew its information from reports such as the present one.

Photo credits. Nos. 2 and 4, Jack Boucher for the Historic American Buildings Survey; No. 8, Gordon Ferguson; others, Bainbridge Bunting.

Fig. 10 Wooden cross, Cemetery near El Valle, N. M.



Fig. 11 Cordova Grist Mill, Rockwall, N. M.

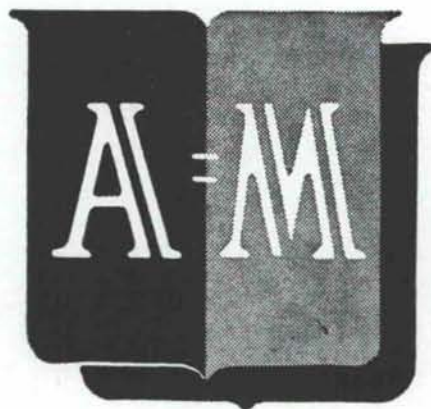


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THE GREAT AGES OF WORLD ARCHITECTURE. *Frank E. Brown*, ROMAN ARCHITECTURE; *Robert Branner*, GOTHIC ARCHITECTURE; *Henry A. Millon*, BAROQUE AND ROCOCO ARCHITECTURE; *Vincent Scully, Jr.*, MODERN ARCHITECTURE.

George Braziller, Publishers, NEW YORK, 1961. \$4.95 each (\$20.00 for special boxed edition).

The series of volumes entailed in the "Great Ages of World Architecture" follows the earlier pattern set by the same publisher in "Masters of Modern Architecture." Each of the volumes contains a brief (40 to 50 pages) essay which accompanies around one hundred illustrations. With only a few exceptions the quality of these illustrations is excellent, far above that of the earlier series. It is apparent as well that a serious attempt has been made to obtain new photographs of often reproduced buildings and also to use as atypical illustrations, buildings and projects which are not very well known. Thus the use of numerous models and reconstructions in Brown's *Roman Architecture* provides a far more meaningful view of these buildings and the city-scapes than has been available in the past. Although the accompanying notes and bibliography are highly selective, they do provide a listing of the current literature on the subject.

The brevity of the introductory essays in this series and the former "Masters of Modern Architecture" is a success in several cases and a failure in others. It forces each of the authors to disregard the peripheral and concentrate on the underlying essentials of the architecture of each of their epochs. Among the pres-

ent four volumes this approach has produced at least two brilliant essays, the one by Brown on Roman architecture and the other, by Scully on modern architecture. For Brown the essence of Roman architecture was that, "of shaping space around ritual." A further clue to Brown's approach to Roman architecture can be seen in one of his many discussions of space: "They conceived cups and bowls and troughs of space, so shaped as to funnel the spectator's attention toward each distinct, formal pattern of spectacle"

Scully's analysis of the architecture of the nineteenth and twentieth centuries is equally perceptive. Thus he perceives that the new relationship between mass, volumes and space which so characterize twentieth century architecture is a result of the old stability having "been overset, and human beings, in the mass, have been given an architectural environment which is an image of the modern world itself, in which they do not know exactly who or where they are." While Millon's essay on the Baroque and the Rococo does not approach the brilliance of Scully or Brown, it is still a stimulating analysis of European architecture of the sixteenth through eighteenth centuries. His summation of Baroque architecture as a "persuasive art that at times verged on high powered propaganda" in contrast to that of the Renaissance which was that of a building "to be admired in its isolated perfection," (the emotionalism of the Baroque in contrast to the intellectualism of the Renaissance), is an excellent summation of the basic difference between these two ages.

Continued on page 30



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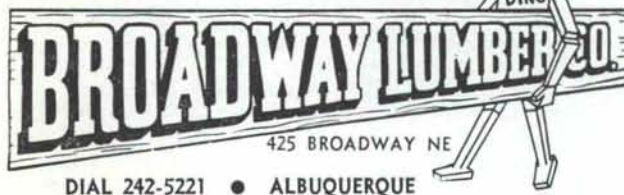
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Branner's *Gothic Architecture* is the most disappointing of the series, especially when compared to the writings of Brown or Scully. His approach is more within the traditional vein of the history of architecture, as a succession of styles, and a listing of a vast number of examples. But still, his essay on the Gothic is of value for he brings to light many new thoughts and interpretations which have come to the fore in recent years.

According to the publishers, further volumes will be issued in "the Great Ages of World Architecture": on the Greek, Early Christian and Byzantine, Medieval, Renaissance, Islamic, Chinese and Indian, and Pre-Columbian. These will be reviewed in later issues of the NMA.—David Gebhard

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