

5-20-1969

Performing Arena for Inter-Tribal Indian Ceremonial Association

Rodger Boyd

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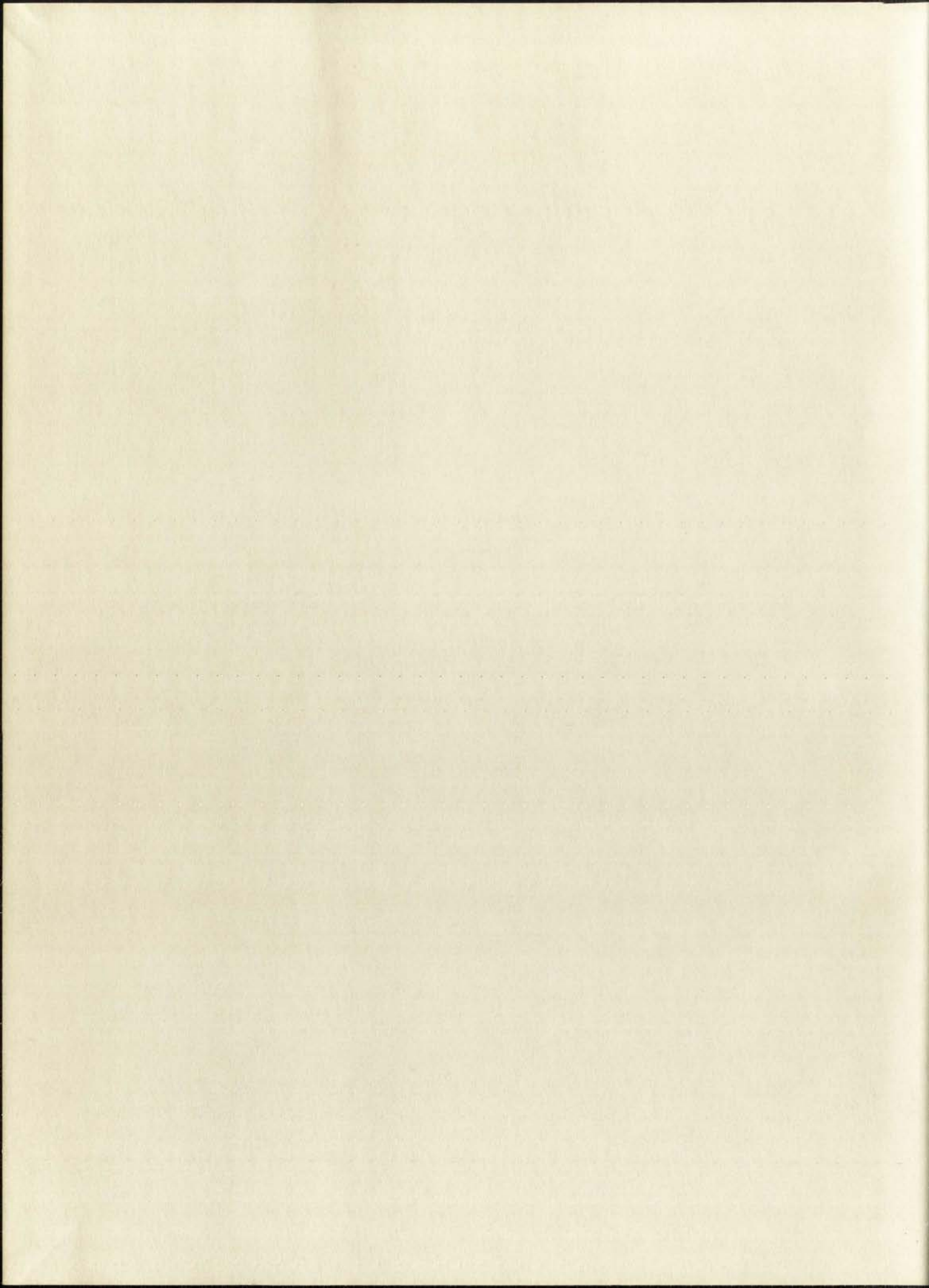
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OCT 30 '69

MAR 28 1973

MAY 18 1973 C.C.







PERFORMING ARENA
FOR
INTER-TRIBAL INDIAN
CEREMONIAL ASSOCIATION



PROPOSED PERFORMING ARENA
for
THE INTER-TRIBAL INDIAN CEREMONIAL ASSOCIATION
GALLUP, NEW MEXICO

by
RODGER BOYD
Bachelor's Thesis

In partial fulfillment of
the requirements for the
Degree of Bachelor of
Architecture at the
University of New Mexico,
Albuquerque

May 20, 1969

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I. INTRODUCTION

In the near future the Inter-Tribal Indian Ceremonial Association located in Gallup, New Mexico plans to re-locate the annual Indian Ceremonial program on a new site. The Inter-Tribal Indian Association states the new complex as a National Indian Memorial Park. It will be a park to preserve a permanent exhibit of the various cultures of the Indians of North America.

The proposed Park will consist of the following major elements: 1) A visitor center, (for information), 2) a performing arena, 3) an Arts and Crafts Center, 4) Museum, 5) Indian Hall of Fame, 6) Research Center on Indian Studies. The proposed site is located in the Red Rock area east of the town of Gallup.

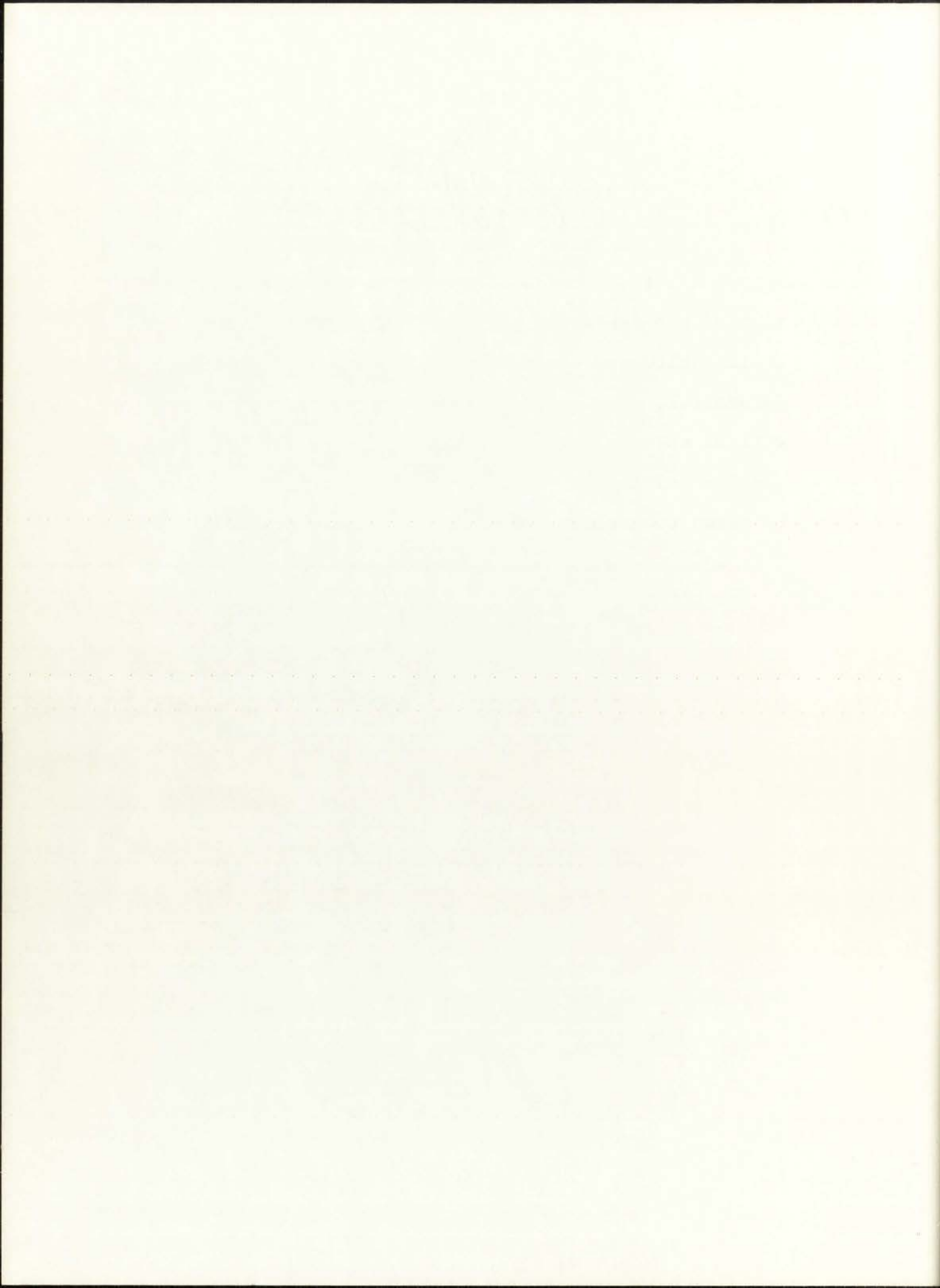
The major study of this program will be that of the performing arena. The remaining five elements stated above will be studied in a very limited capacity.

These elements will be considered only in mass form of undetermined or approximate size. The site is located in a relatively uninhabited area. Therefore, it would be important, (in locating the performing arena on the site), to show some relationship between the area and the other major elements of the complex. The site



for the complex will be studied and a relationship of major elements will be determined and planned.

The emphasis on design of the performing arena will be that of the dances, songs and rituals of the various Indian Cultures represented at the annual Indian Ceremonial. But in the off season, various other groups will be able to take advantage of the facilities of the complex and careful consideration in design will have to be taken to include the needs of these multi-use groups.



II. GENERAL INFORMATION AND HISTORY

The Inter-Tribal Indian Ceremonial Association was formed in 1922 in Gallup, New Mexico. The prime purpose of the organization was to establish an annual four-day Indian Ceremonial. The event is held in August and consists of parades, dances, rodeos, and a display of Indian arts and crafts.

The administrative organization of the Ceremonial Association consists of 12 elected board members. The board in turn chooses a president, vice-president, treasurer and employs a full-time secretary-manager. Each member is assigned the chairmanship of one or more of the specialized activities of the Indian Ceremonial, and is controlled financially by a set of cost figures allotted to each committee.

For the most part the Ceremonial Association provides approximately 75% of its own financial funds mainly through membership funds, contribution and assessments from local businessmen and interested parties. But the remaining per cent comes from an annual appropriation of the New Mexico legislature.

The potential source of funding a new Indian Ceremonial complex would probably come from (1) private investors,

THE HISTORY OF THE

The history of the world is a long and varied one, and it is one that has been written by many different people. It is a story that has been told in many different ways, and it is one that has been told in many different languages. It is a story that has been told in many different places, and it is one that has been told in many different times. It is a story that has been told in many different ways, and it is one that has been told in many different languages. It is a story that has been told in many different places, and it is one that has been told in many different times.

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(2) charitable foundations, (3) contributions, and (4) federal, state, and local governments. From this fund the performing arena would be financed. But it is hoped that the complex with its consideration of multi-uses would bring in an added income to help pay the cost and operation of such a building.



III. BASIC ISSUES OF PERFORMING ARENA

The basic issues of the performing arena were established in a series of questions broken down under the heading of various systems. These systems are as follows:

- 1) Circulation, 2) Environment, 3) Economics,
- 4) Administration, 5) Technology

System and Major Questions

1. Circulation

A. Automobile

- 1) In relationship to the complex where should the parking be?
- 2) Does the complex need its own parking lot?
- 3) With regard to service of the building,
 - a) What kind of vehicle is usually used?
 - b) Will vehicles be allowed to enter the complex?

B. Pedestrian

- 1) What kind of provisions should be taken for pedestrian movement at and/or near the box office?
- 2) What should be the relationship between the box office, main entrance and foyer?
- 3) Is there a preference in the use of ramps or stairs?



- 4) Should there be more than one main entrance?
- 5) What kind of circulation is needed for the performers?

2. Environment

- A. What is the general condition of the site as it exists now?
 - 1) Climate
 - 2) Utilities
 - 3) Contours
- B. Are there any physical aspects about the site that might have an effect on the building?
- C. Since this will be a building pertaining to the preservation of Indian Culture, what factors should be regarded in this relationship?

3. Economics

- A. At the present, how is the Indian Ceremonial financed?
- B. Would this complex (performing arena) be self-supporting?
- C. If the complex will not be self-supporting, how will it be financed?

4. Administration

- A. How is the Ceremonial Association's administration organized?

1. The first part of the document is a letter from the Secretary of the State to the President, dated 18th March 1847. It contains a report on the state of the country and the progress of the war.

2. The second part is a report from the Secretary of the State to the President, dated 25th March 1847. It contains a report on the state of the country and the progress of the war.

3. The third part is a report from the Secretary of the State to the President, dated 1st April 1847. It contains a report on the state of the country and the progress of the war.

4. The fourth part is a report from the Secretary of the State to the President, dated 8th April 1847. It contains a report on the state of the country and the progress of the war.

5. The fifth part is a report from the Secretary of the State to the President, dated 15th April 1847. It contains a report on the state of the country and the progress of the war.

- B. With a complex like the performing arena, what kind of administration would there be?
- C. Approximately how many people would it take to handle the administrative side of this complex?

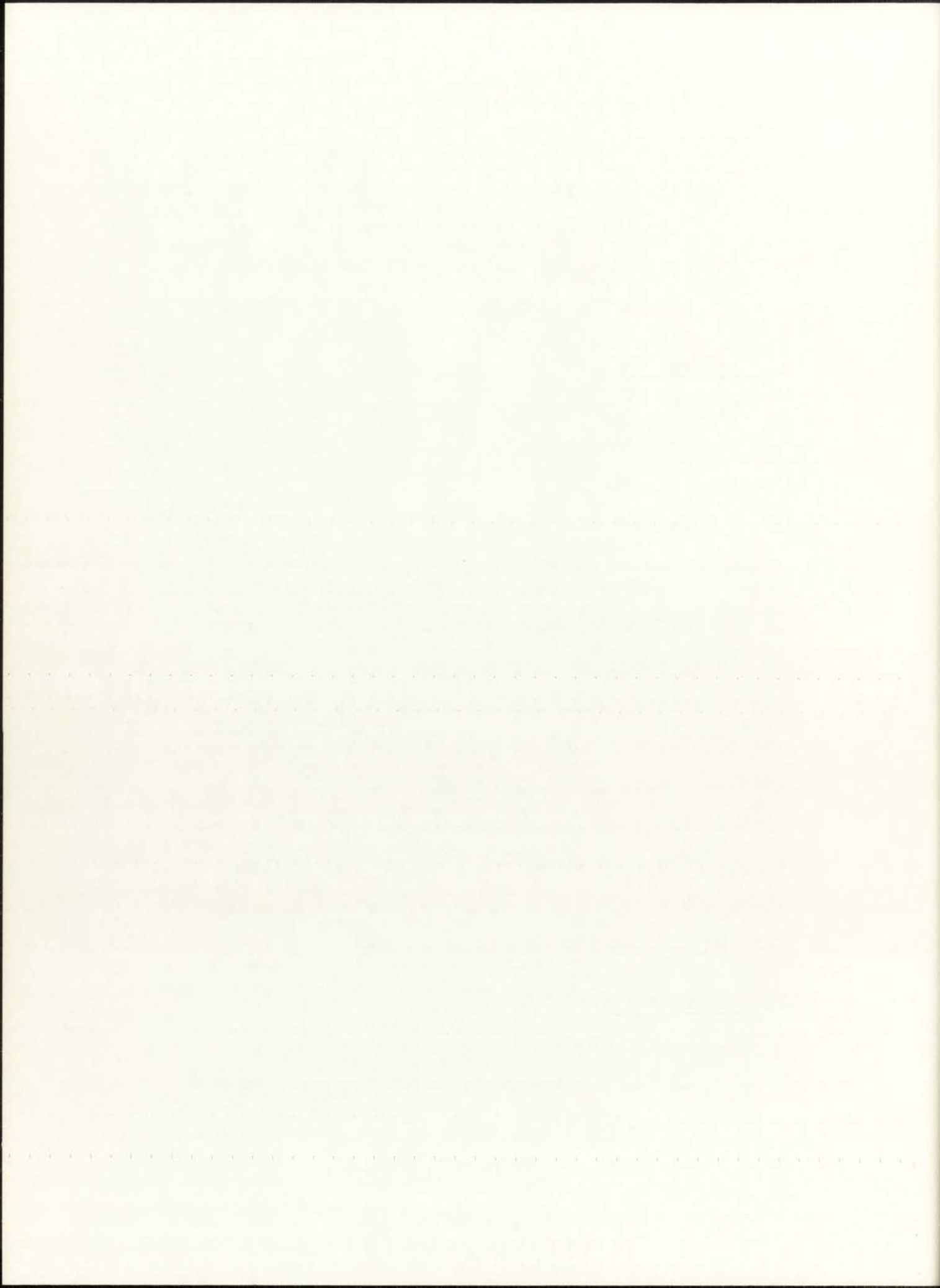
5. Technology

- A. What kind of materials are being considered?
- B. Are the materials easily accessible?
- C. Can the local market handle the type of construction method desired?

As stated before, the major emphasis of this study is on the performing arena and limited study to the remaining proposed complexes. It is felt that here a few additional questions concerning the basic issues of the site were needed to help relate the various other complexes with the performing arena. Some of the systems, such as administration and economics, can support the same questions that pertain to the performing arena and complex as a whole, so the major systems here will be circulation and environment.

1. Circulation

- A. Automobile
 - 1) Is the approach to the site convenient to the traffic pattern?
 - 2) What is the parking situation on the site?



- 3) To what extent will the auto traffic be related to pedestrian traffic?
- 4) Because the site is located out of the city limits of Gallup, what other kind of transporting auto will become involved with the site?
- 5) What provisions will there be to handle vehicles other than private automobiles?

B. Pedestrian

- 1) There will be a number of buildings on the site. What pedestrian connectors are being considered? For example paths, covered walkways, etc.
- 2) What kind of pedestrian--auto relationship will be used on the site?

2. Environment

- A. Are there any strong physical aspects about the site that might have an effect on the location of the various complexes?
- B. What is the general condition of the area surrounding the site?
- C. What influence might this area have upon the site? (Considering natural and man-made surroundings.)

The first part of the report is devoted to a description of the experimental apparatus and the method of measurement. The second part contains the results of the measurements and a comparison with the theoretical predictions. The third part discusses the possible sources of error and the conclusions drawn from the experiment.

The experimental apparatus consists of a cylindrical container of length L and radius R , filled with a gas of particles of mass m and temperature T . The particles are assumed to be in thermal equilibrium with the walls of the container. The pressure P is measured by a manometer connected to the container. The theoretical prediction for the pressure is given by the ideal gas law, $P = n k_B T$, where n is the number density of the gas.

The results of the measurements are shown in Figure 1. The pressure P is plotted against the number density n . The data points are shown as open circles, and the theoretical prediction is shown as a solid line. The data points are in good agreement with the theoretical prediction, indicating that the gas behaves as an ideal gas under the conditions of the experiment.

The possible sources of error in the experiment are discussed in the following section. The most significant source of error is the uncertainty in the measurement of the pressure. Other sources of error include the uncertainty in the measurement of the length and radius of the container, and the uncertainty in the measurement of the temperature.

IV. SPATIAL REQUIREMENTS WITHIN A SPACE

In the study of the basic areas of the performing arena complex, the major spaces were divided according to the activity of that space. The activities of the selected spaces were determined and through the research study, recommended square feet was used. It should be noted that the square feet is approximate and will come to a final figure once the design procedure has begun. Because the complex has not been designed some of the information on the following pages is subject to change.

The major areas under consideration are as follows:

- A. Arena (Auditorium)
- B. Dressing rooms
- C. Management Offices
- D. Box Office
- E. Storage
- F. Service Areas
- G. Special Effects Area
- H. Public Spaces



PROJECT

Performing Arena

ROOM NAME

Arena

AREA

Seating for 7,000 - 70,000 square feet
(Allowing 10.0 square feet per person, including
aisles and crossovers.)

FUNCTION OF SPACE

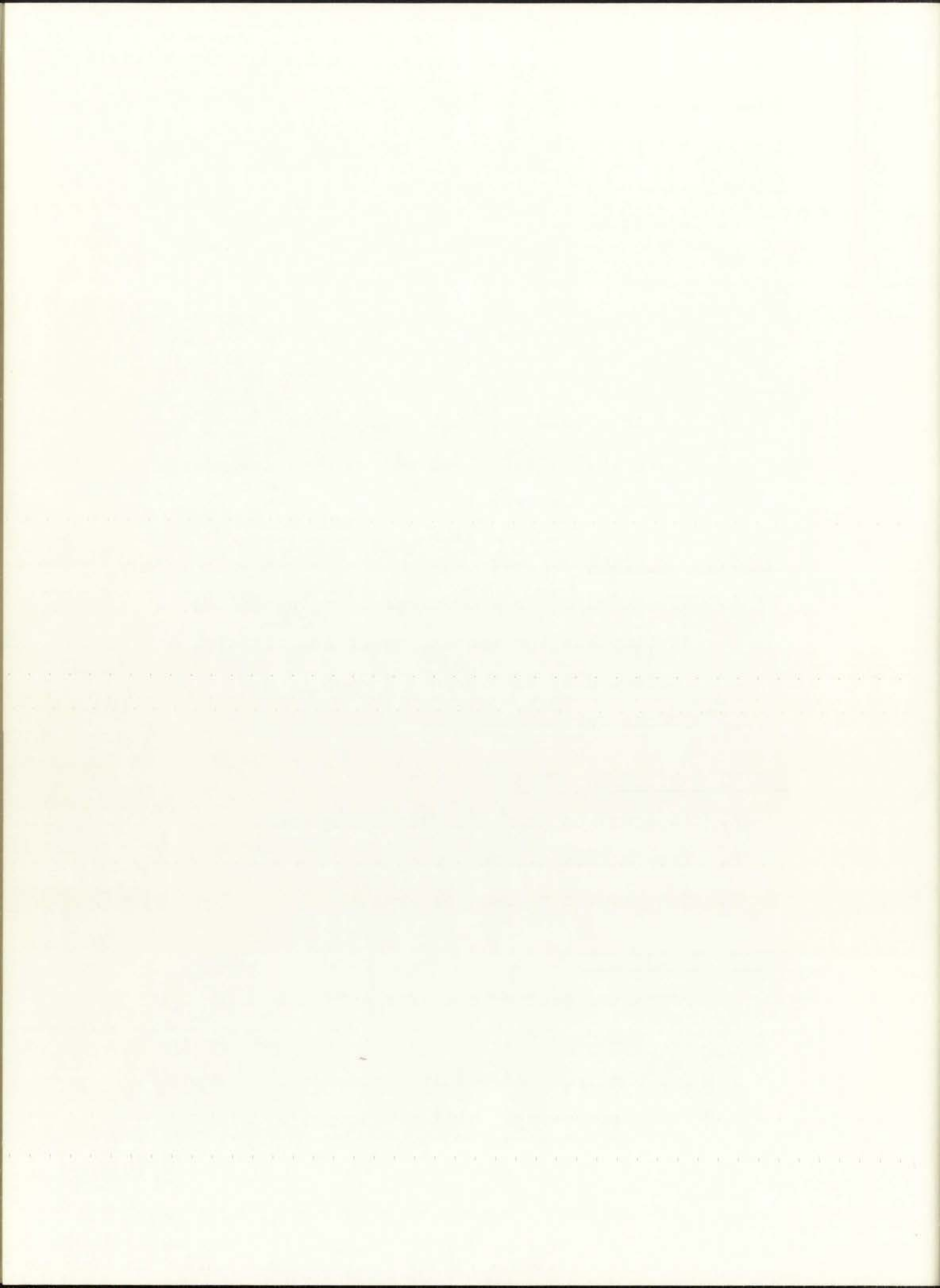
- A. The primary function of this space will be to accommodate the dances, songs and rituals, as performed by the various Indian groups at the Indian Ceremonial.

RELATION TO OTHER AREAS

- A. Adjacent to performers dressing area.
- B. Easy access to storage area.
- C. Easy access to service area.

BUILT-IN EQUIPMENT

- A. Protected seating area for audience
 1. Because of the variation in admission charge, the types of seating will vary. Example:
Theatre-type seating, bleachers, etc.



FURNISHINGS

- A. Portable seating if necessary.
- B. Proper lighting and sound control.

OTHER CONSIDERATIONS

- A. With the large crowds proper mechanical system should be used if the area is totally enclosed.
- B. The location of sound and light control, should be considered as areas within the main auditorium.
- C. Circulation pattern which creates minimum amount of confusion to spectators going in and out.
- D. Public lounges - rest rooms.
- E. Storage for arena.



PROJECT

Performing Arena

ROOM NAME

Dressing Rooms

AREA

3,000 square feet allowing 15 square feet per performer.

FUNCTION OF SPACE

- A. The area should be that which would accommodate up to 200 performers with proper security.

RELATIONSHIP TO OTHER AREAS

- A. Adjacent or near main arena.

BUILT-IN EQUIPMENT

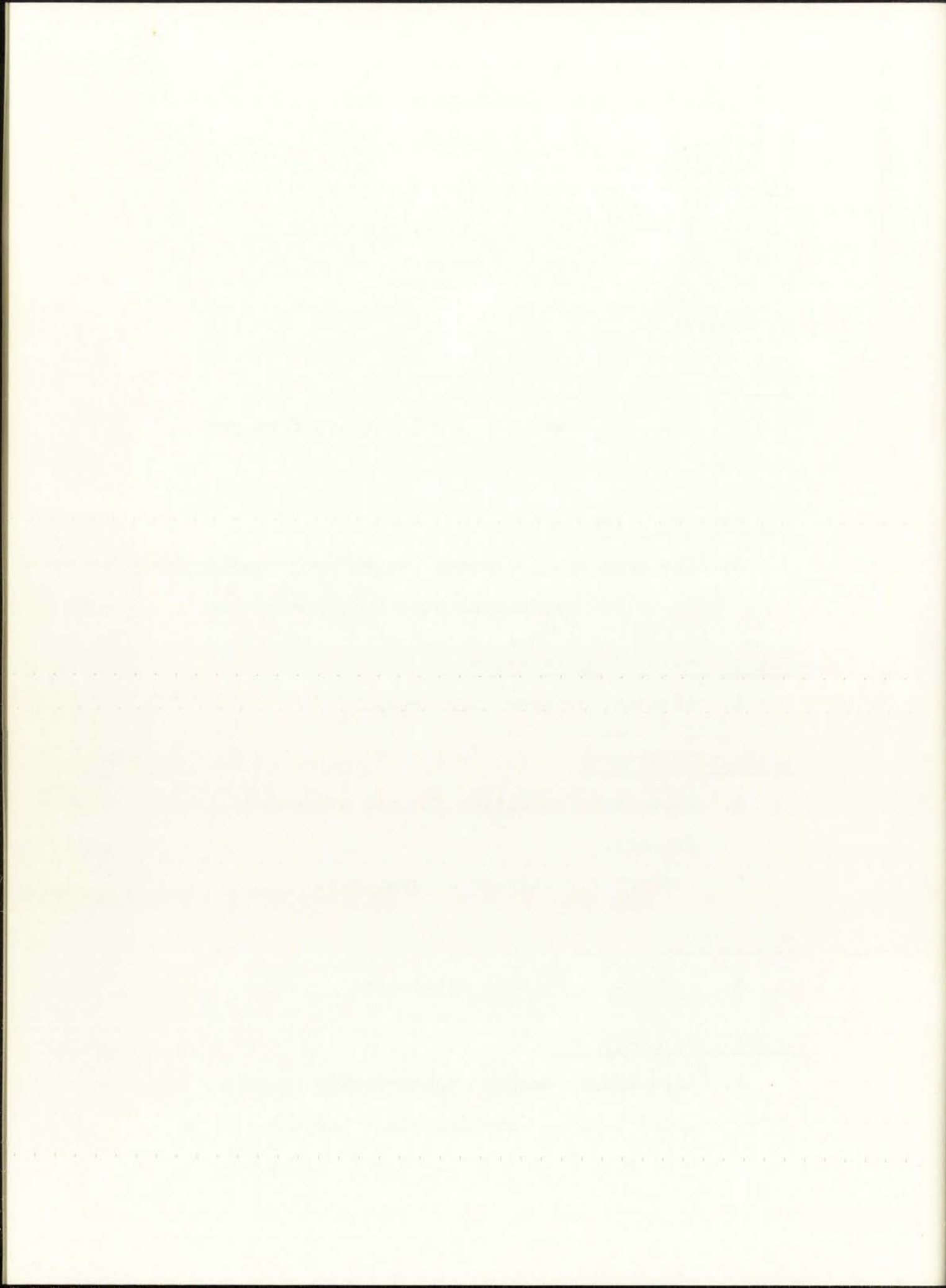
- A. Rest Room facilities for men and women.
- B. Showers.
- C. Lockers for storage of costumes.

FURNISHINGS

- A. Furniture, as seen necessary.

OTHER CONSIDERATIONS

- A. Circulation between the dressing rooms and main arena becomes very important because at the beginning of the Indian Ceremonial performances,



the total performers gather for a grand entry.

- B. A lounge area for the performers.
- C. If found necessary, eating facilities should be considered.



PROJECT

Performing Arena

ROOM NAME

Management Offices

AREA

900 square feet

FUNCTION OF SPACE

To house supervising personnel, production manager, and staff.

RELATION TO OTHER AREAS

In relationship to the other areas the offices should be close to the main entrance, and ticket sales.

BUILT-IN EQUIPMENT

The comptroller usually handles the box office receipts and would need some kind of built-in safe or vault.

FURNISHINGS

Consist of visual office furniture.

OTHER CONSIDERATIONS

- A. Storage
- B. Method of access

1912

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1912

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1912

THE RECEIPTS OF THE BOARD OF SUPERVISORS OF THE COUNTY OF ALBANY, N.Y.

FOR THE YEAR ENDING DECEMBER 31, 1912

AS SET FORTH IN THE REPORT OF THE BOARD OF SUPERVISORS

FOR THE YEAR ENDING DECEMBER 31, 1912

IN ACCORDANCE WITH THE PROVISIONS OF SECTION 100 OF THE

LOCAL GOVERNMENT LAW, AS AMENDED

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PROJECT

Performing Arena

ROOM NAME

Box Office

AREA

760 square feet allowing 50 square feet per ticket selling space.

FUNCTION OF SPACE

Sale of tickets to arena.

RELATION TO OTHER SPACES

- A. Close or at main entrance.
- B. Close or adjacent to administrative offices and comptroller.

BUILT-IN EQUIPMENT

- A. Visual ticket booth details.
- B. Perhaps a safe.

FURNISHINGS

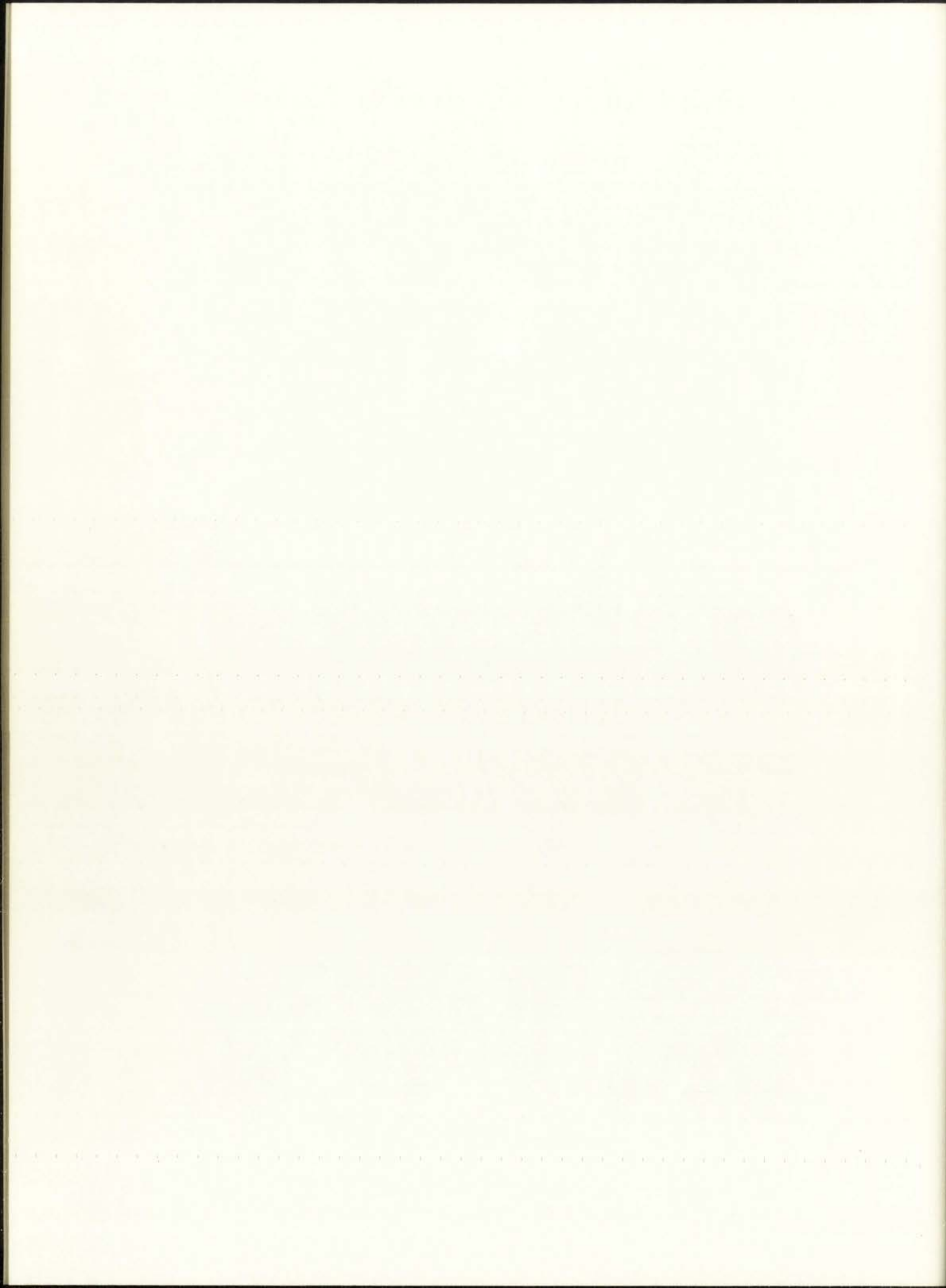
Visual ticket booth furnishings, chairs, ticket racks, desks, etc.

OTHER CONSIDERATIONS

- A. A close study of circulation relationship between main entry, ticket box and main arena.



- B. A close study of security control, transportation of money from one area to another area.
- C. Storage area.



PROJECT

Performing Arena

ROOM NAME

Storage Area

AREA

1,600 square feet.

FUNCTION OF SPACE

Sufficient storage for each of the major spaces under consideration.

RELATION TO OTHER AREAS

In most cases the storage areas should be near or adjacent to the area using the storage space.

BUILT-IN EQUIPMENT

Each storage space will have different requirements, according to area that is using it - equipment as needed.

FURNISHINGS

As needed - according to requirement of area that is using the storage space.

OTHER CONSIDERATIONS

1950

1951

1952

1953

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1958

1959

1960

1961

1962

1963

1964

1965

PROJECT

Performing Arena

ROOM NAME

Service Area (s)

AREA

200 square feet.

FUNCTION OF SPACE

- A. To take care of incoming and outgoing articles of the complex.
- B. To take care of maintenance required by the complex - utilities, refuse, etc.

RELATION TO OTHER AREAS

Convenient to areas it is serving.

BUILT-IN EQUIPMENT

Equipment as needed.

FURNISHINGS

As required.

OTHER CONSIDERATIONS

- A. Good circulation for moving volume quickly.
- B. Provide entrance large enough to handle fire equipment, ambulance, etc.



PROJECT

Performing Arena

ROOM NAME

Special Effects

AREA

400 square feet.

FUNCTION OF SPACE

Control room for handling the special effects of light and sound.

RELATION TO OTHER AREAS

Since the special effects are primarily for the performances, the area should be located within the main arena (auditorium). It should have clear visibility of performing area without obstructing the spectators view or interfering with the performers.

BUILT-IN EQUIPMENT

- A. Light and sound control panel.
- B. Equipment as needed.

FURNISHINGS

Furnishings as needed.

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1927

OTHER CONSIDERATIONS

The control room should be equipped so as to carry on any lighting or sound control needs that the users of the arena might need.



PROJECT

Performing Arena

ROOM NAME

Public Spaces

AREA

3,000 square feet minimum.

FUNCTION OF SPACE

The function of public spaces is to serve the audience in the best way possible making the attendance to the performance pleasant and memorable.

RELATION TO OTHER AREAS

In relationship to other areas a prime factor is that of circulation. The easiest and most convenient paths of circulation should be considered very carefully.

BUILT-IN FURNISHINGS

- A. Lavatories.
- B. Refreshment area (if used).
- C. Other furnishings as determined necessary.

FURNISHINGS

As required.

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1932

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1934

1935

OTHER CONSIDERATIONS

- A. For this study it has not been determined if a refreshment area is necessary or needed, but careful consideration and planning will be used.
- B. Access and Control
 - 1. Normal direction and method of access.
 - 2. Control of entry.
 - 3. Position of public entrances.
 - 4. Requirements for displays adjacent to entrances.

SUMMATION OF TOTAL SQUARE FEET

As stated in the preceding pages, 10, 12, 14, 15, 17, 18, 19, and 21, the square feet was given in approximate figures and is subject to change if found necessary for the final design solution.

The TOTAL SQUARE FEET IS 79,860.



V. SITE PLAN INFORMATION

The proposed site for the Indian Ceremonial complex is located in an area known as the Red Rocks, just east of the city of Gallup, New Mexico, and within view of Interstate 40. The Red Rocks are high red-orange buttes forming canyons along Interstate 40 and presents one of the most exciting sites in the Gallup area.

The land comprising the site is presently privately owned and is available for purchase by the Ceremonial Association. The site's location is in a semi-arid and nearly uninhabited area with little or no roads on the site, but is in a position north of Interstate 40 and east of an access road to nearby "Kit Carson's Cave." Thus, it is a matter of improving the existing roads to insure good access to the site.

The majority of the site is located on a flat arid soil and extends into the mouth of a canyon formed by two massive buttes on either side. Because of the canyon there is a problem with drainage and a careful study will be made to determine the correct solution for drainage on the site.

Because of the Ceremonial Site is located outside the City of Gallup, it would not be regulated by any of the city's zoning ordinances. At the present, the site does

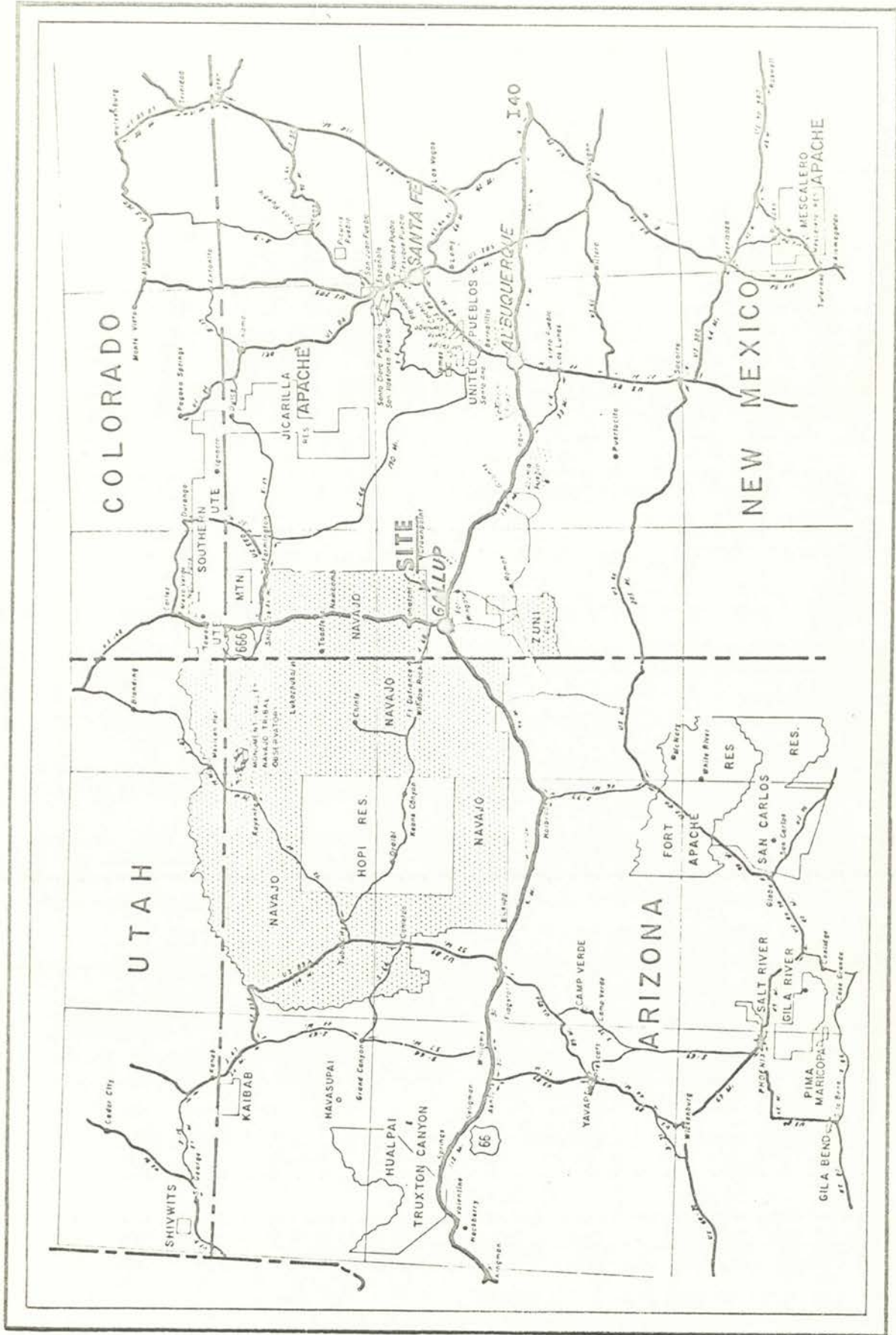


not have any utilities, but electrical and telephone lines run nearby and would be easy to tie into. Also El Paso Natural Gas has lines running very close to the site and are accessible. In this area there are a number of water wells which could easily supply the site.

Though this study was aware of the various recommended sites for relocating the Indian Ceremonial, it was felt that no other site had the outstanding combination of advantages - beauty, character, suitability, availability, accessibility and proximity to Gallup, as did the Red Rock site.

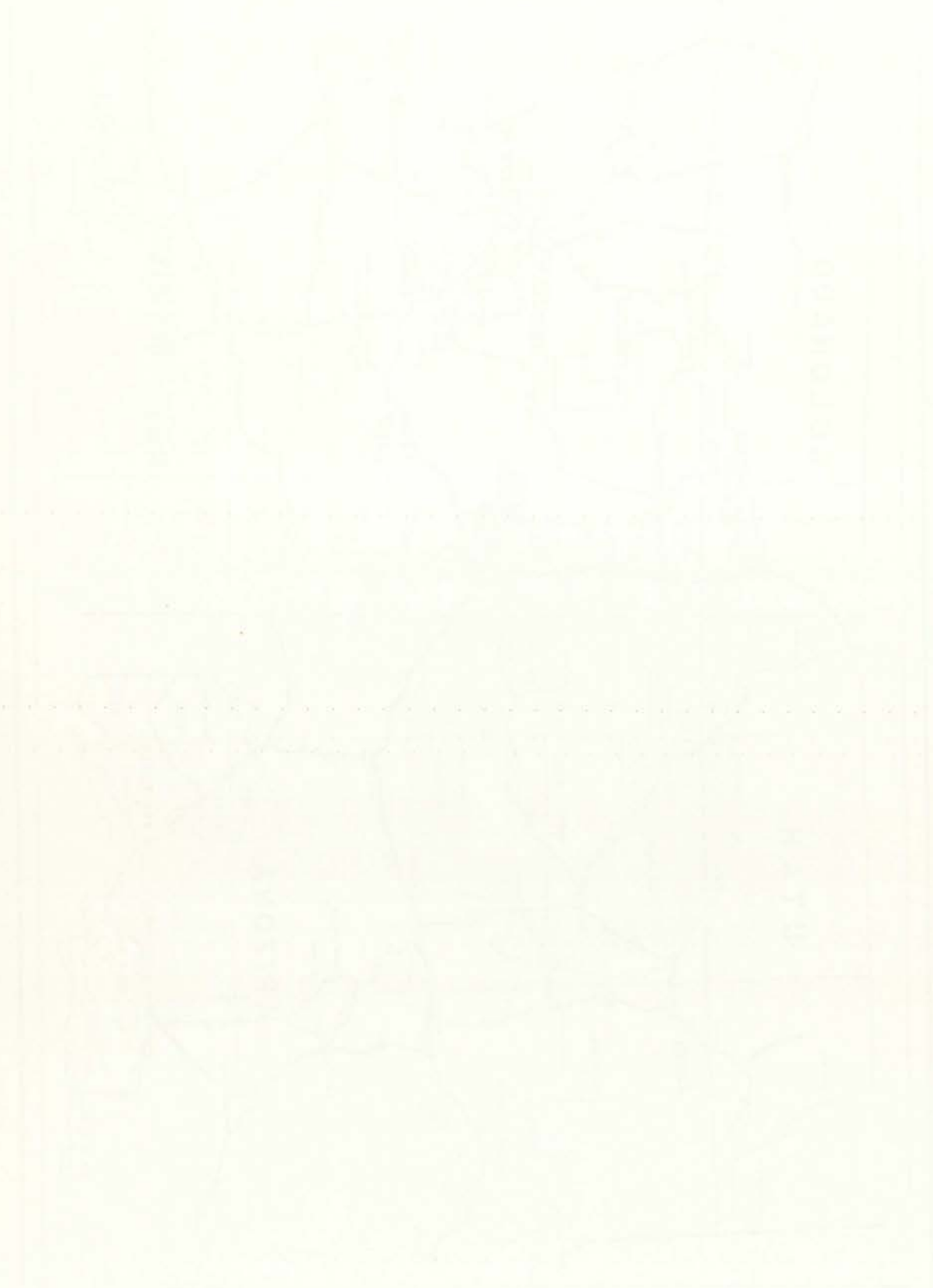


GALLUP AND ITS REGION



Source: Southwestern Association on Indian Affairs.

LOCATION

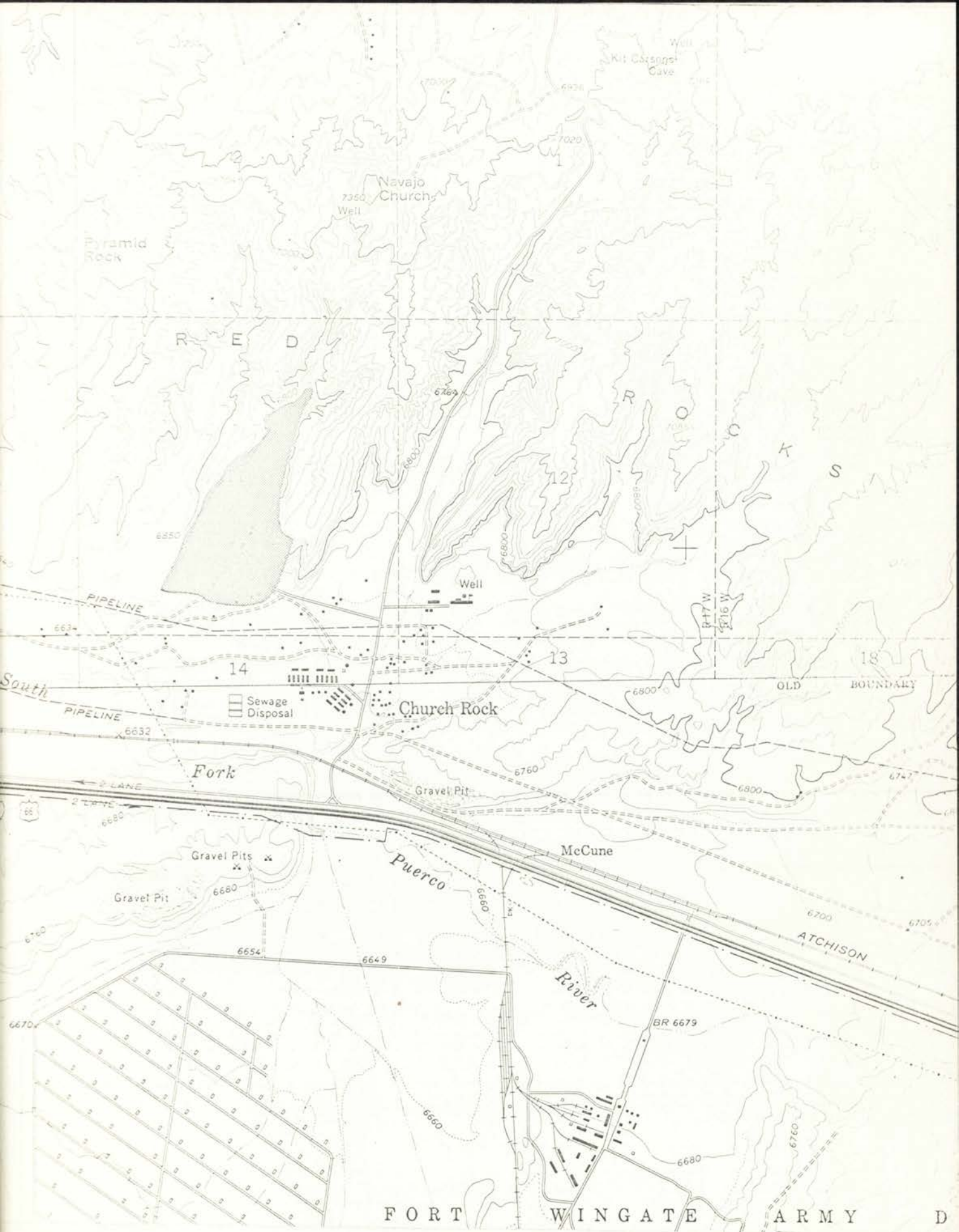


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EAST

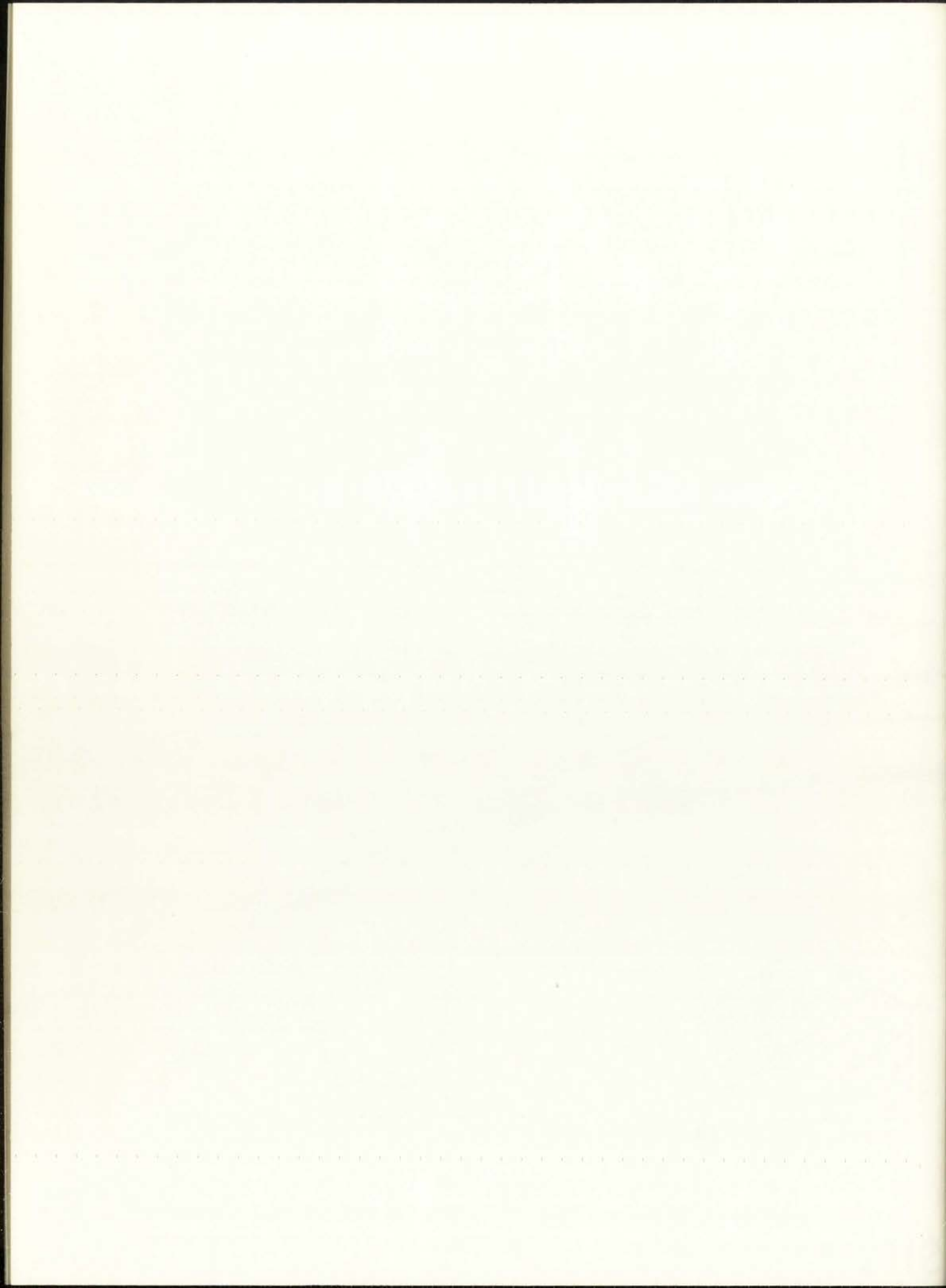
WEST

EAST



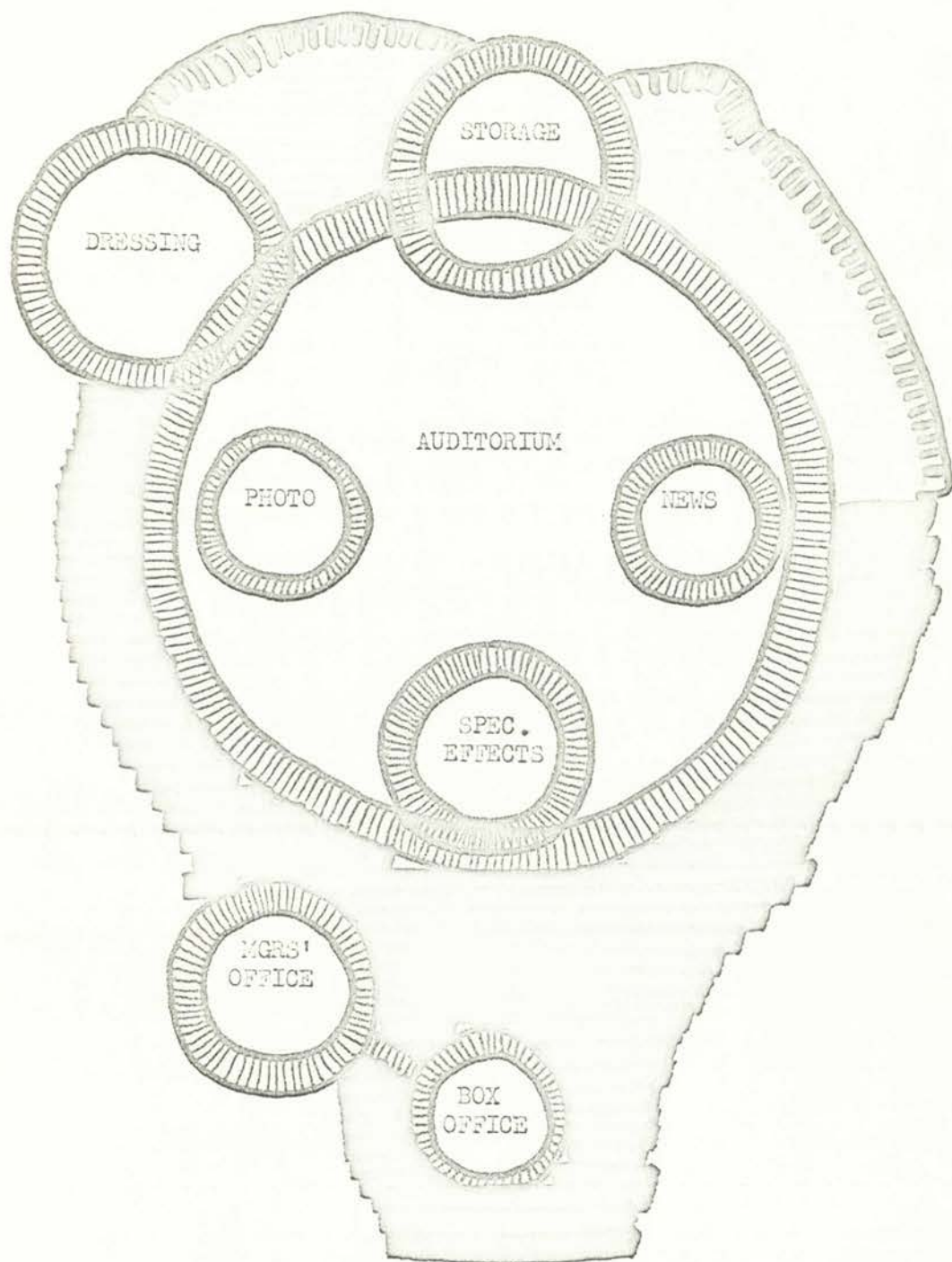
F O R T W I N G A T E A R M Y D

SITE




VI. RELATIONSHIP DIAGRAMS



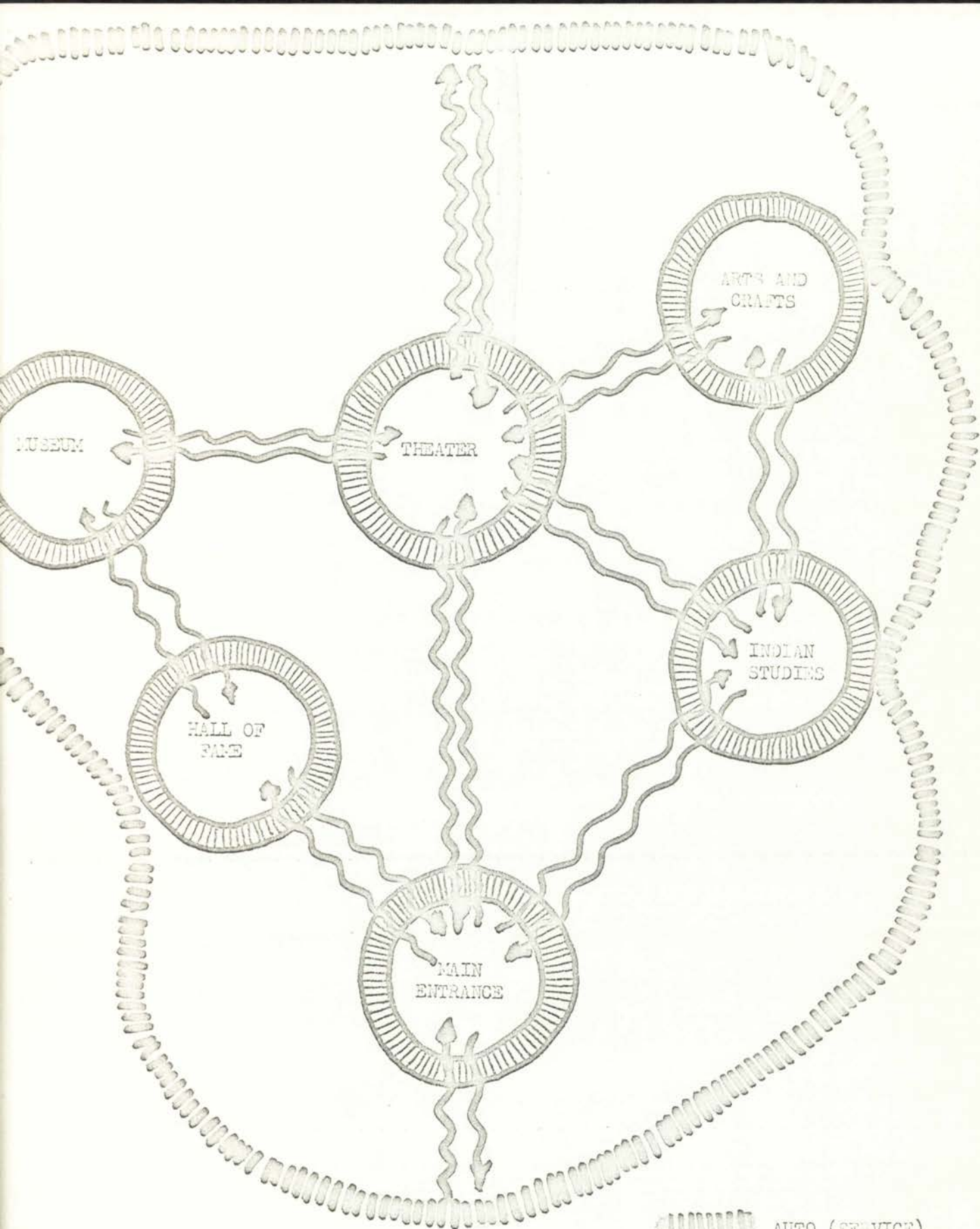


 SERVICE


 PUBLIC AREAS

PERFORMING THEATRE
SPATIAL RELATIONSHIPS





 AUTO (SERVICE) CIRCULATION

 PEDESTRIAN CIRCULATION

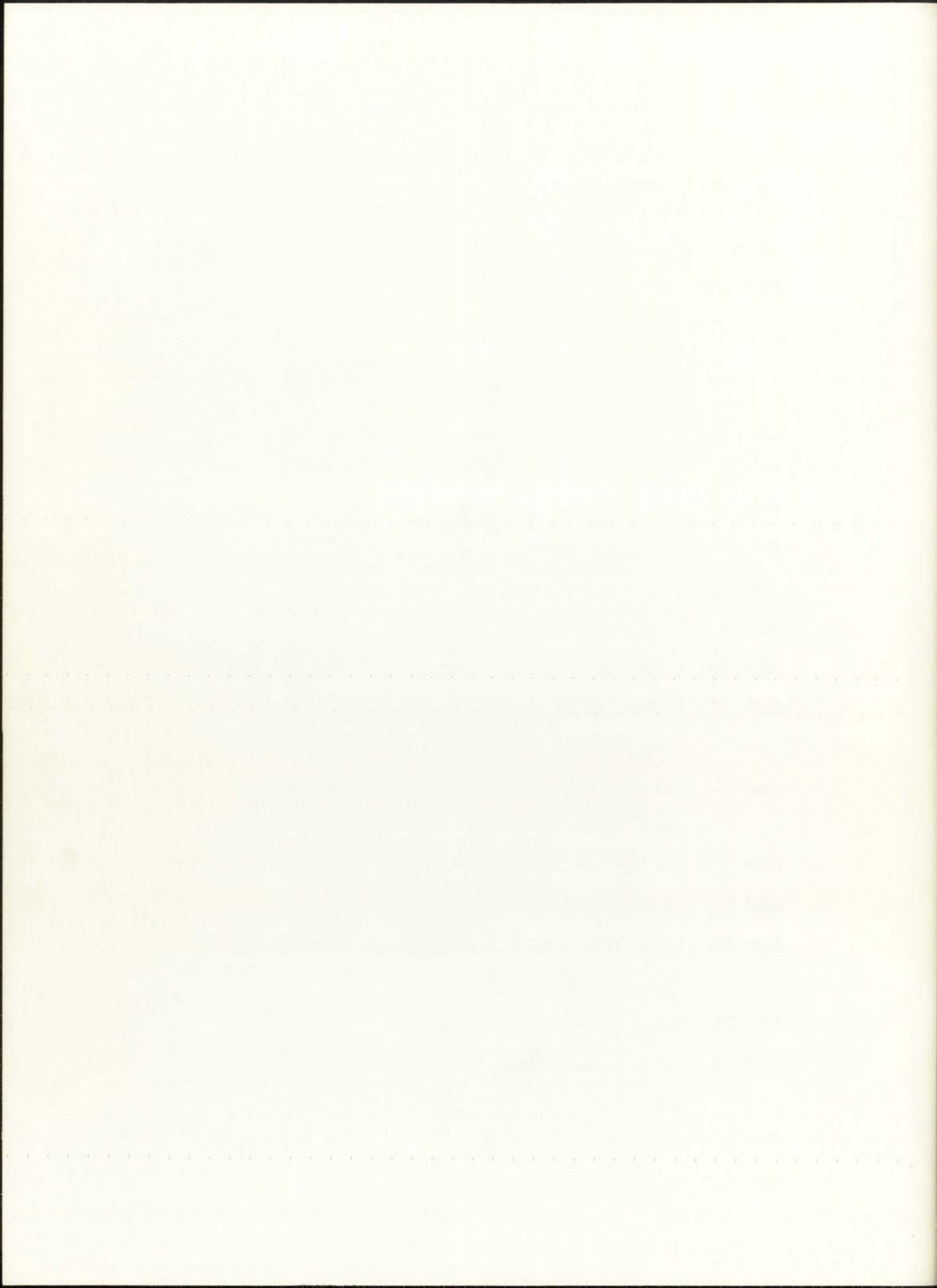
CIRCULATION DIAGRAM



VII. CRITICAL PATH METHOD

Time schedule study for critical path method, Semester II,
February 6, 1969 to May 29, 1969.

		HOURS PER WEEK	NUMBER OF WEEKS
Feb 6	Study floor plans in scale	5	1
Feb 10	Study floor plans in scale	20	2
Feb 17	Elevations	20	3
Feb 24	Structure and Construction	20	4
Mar 3	Mechanical (FOURTH WEEK)	15	5
Mar 10	Site Plan	25	6
Mar 17	Perspective Study combined with Design	15	7
Mar 24	Perspective Study combined with Design	15	8
Mar 31	(SPRING RECESS)	0	9
Apr 7	(SPRING RECESS)	0	10
Apr 14	(PRESENTATION BEGINS) Site Plan-Floor Plans	40	11
Apr 21	Floor Plans--Elevations	40	12
Apr 28	Sections-Mechanical and Structural (Wall Sec.)	40	13
May 5	Model-Perspectives	60	14
May 12	Model-Perspectives	60	15

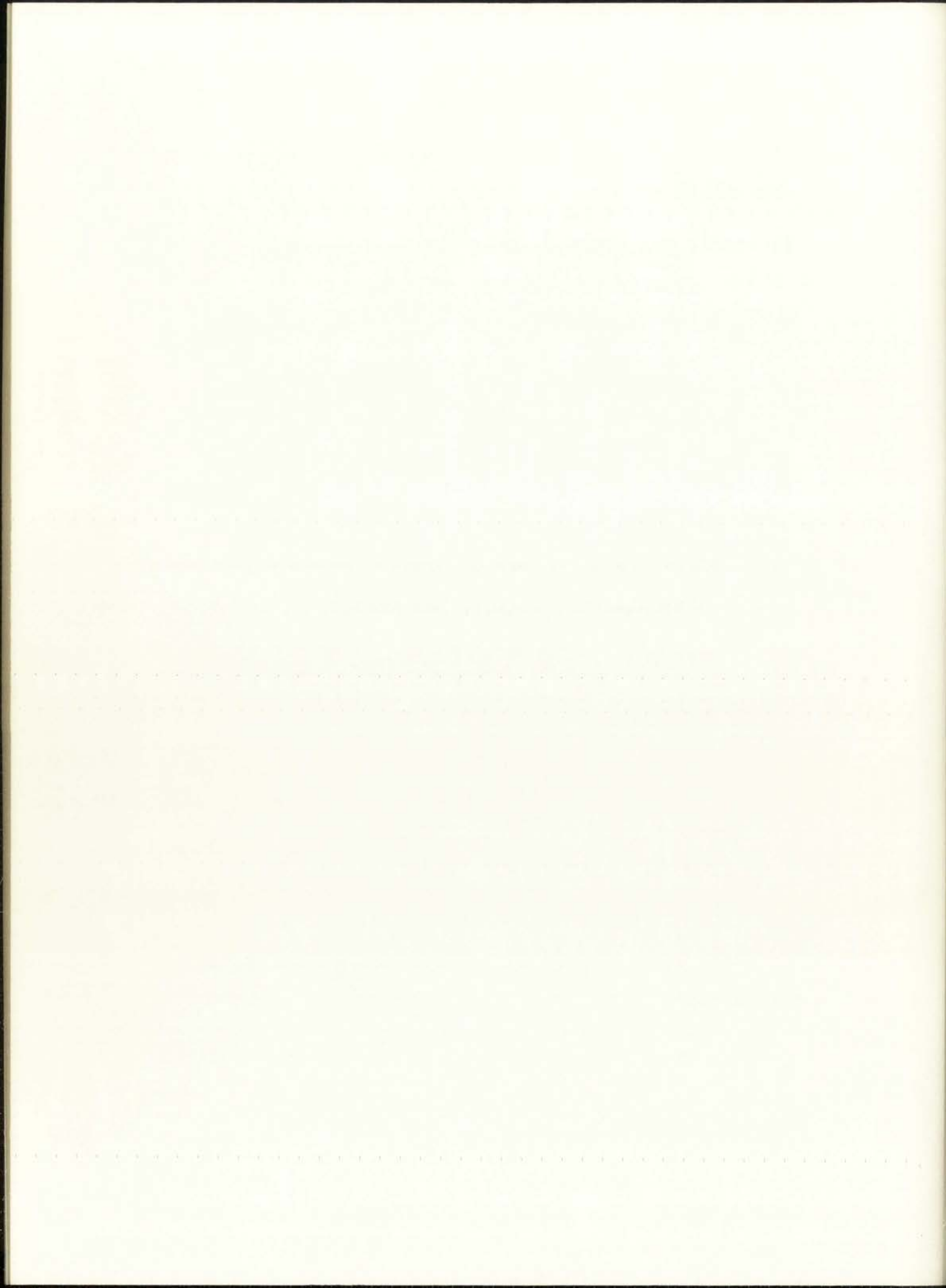


May 19	THESIS DUE AT 9 AM	16
May 26		17
Jun 2		18



INTERVIEWS

1. Cato, Ira, President of Indian Ceremonial Association, Gallup, New Mexico
2. Kennedy, John, Member of Indian Ceremonial Association, Gallup, New Mexico
3. Merry, Edward, Secretary-Manager of Indian Ceremonial Association, Gallup, New Mexico
4. Woodard, Don, Member of Indian Ceremonial Association, Gallup, New Mexico
5. Woodard, Phil, Member of Indian Ceremonial Association, Gallup, New Mexico



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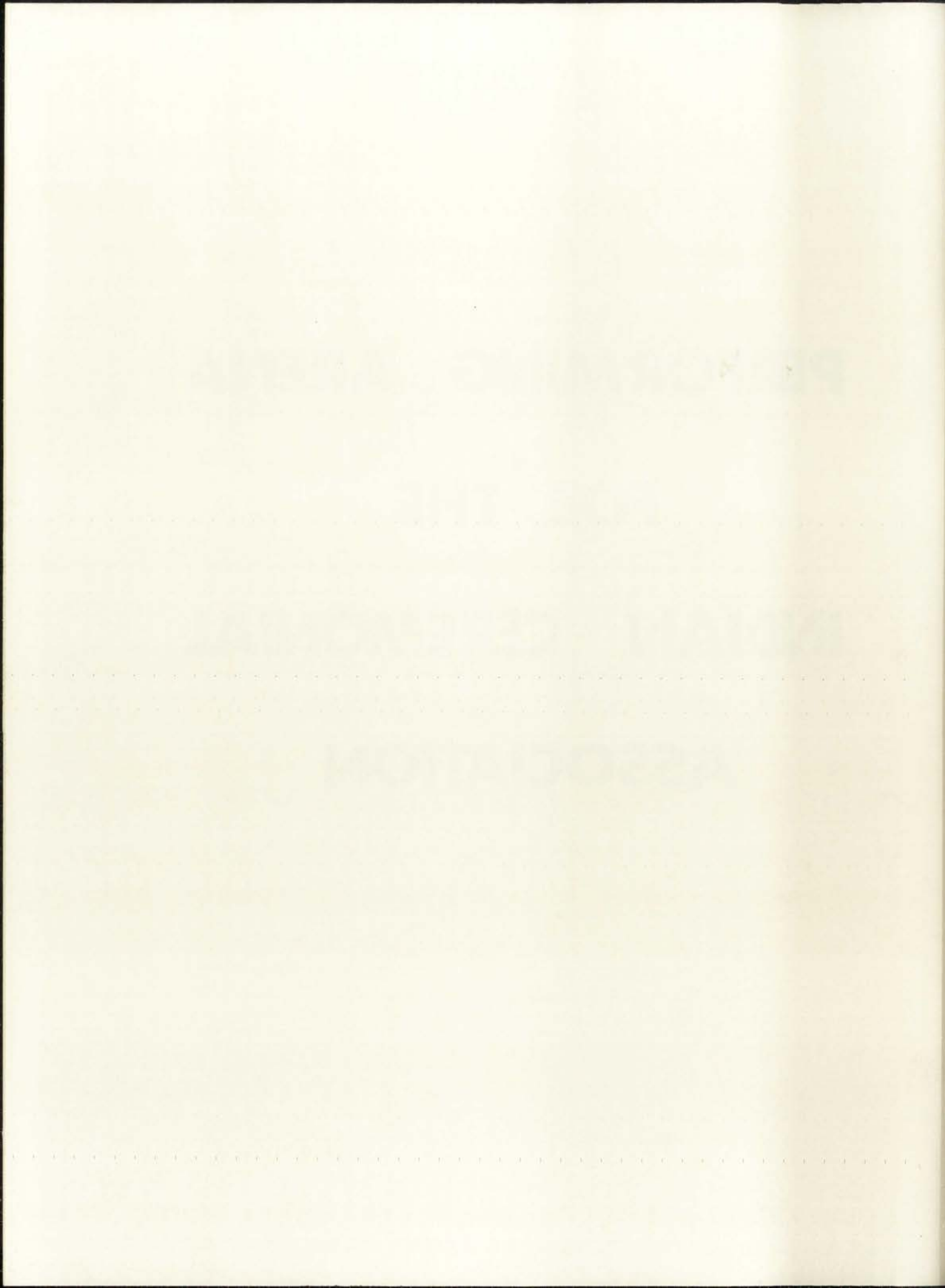


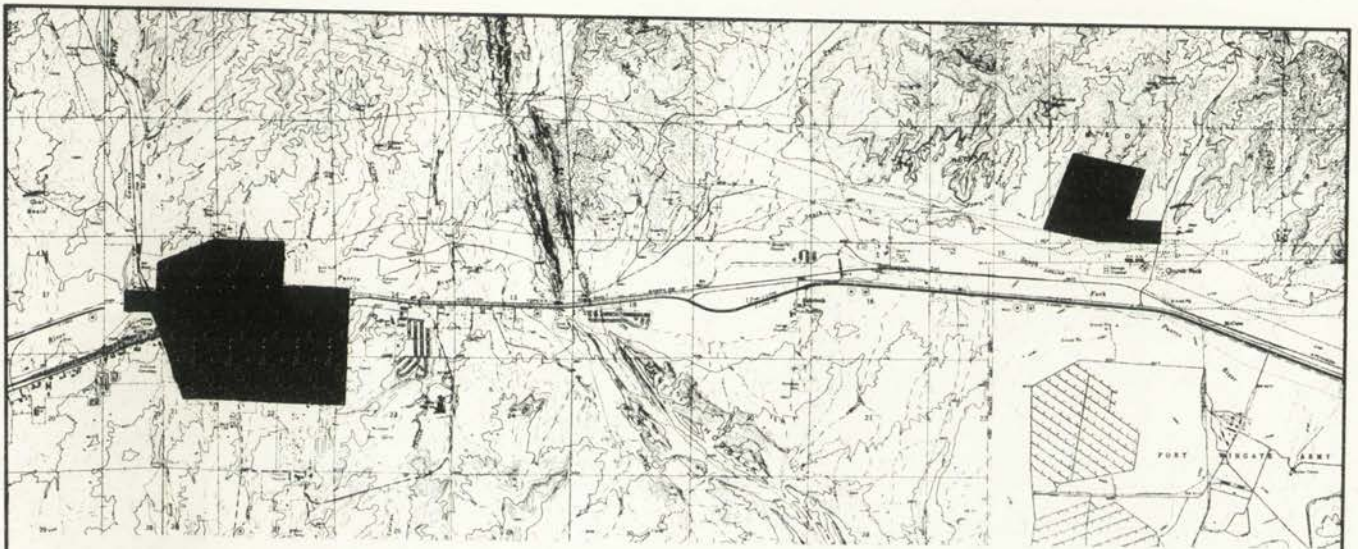
PERFORMING ARENA

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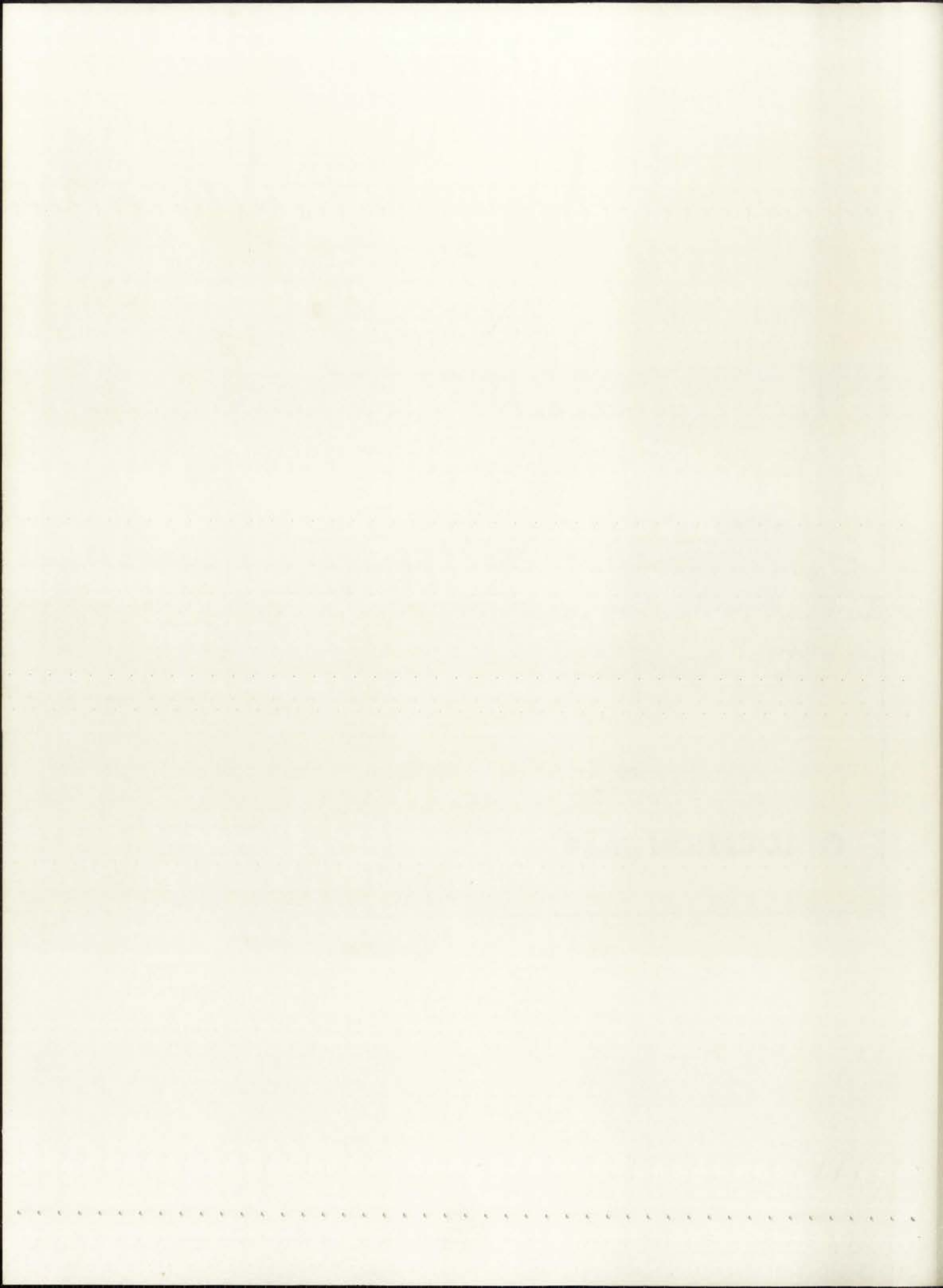
INDIAN CEREMONIAL

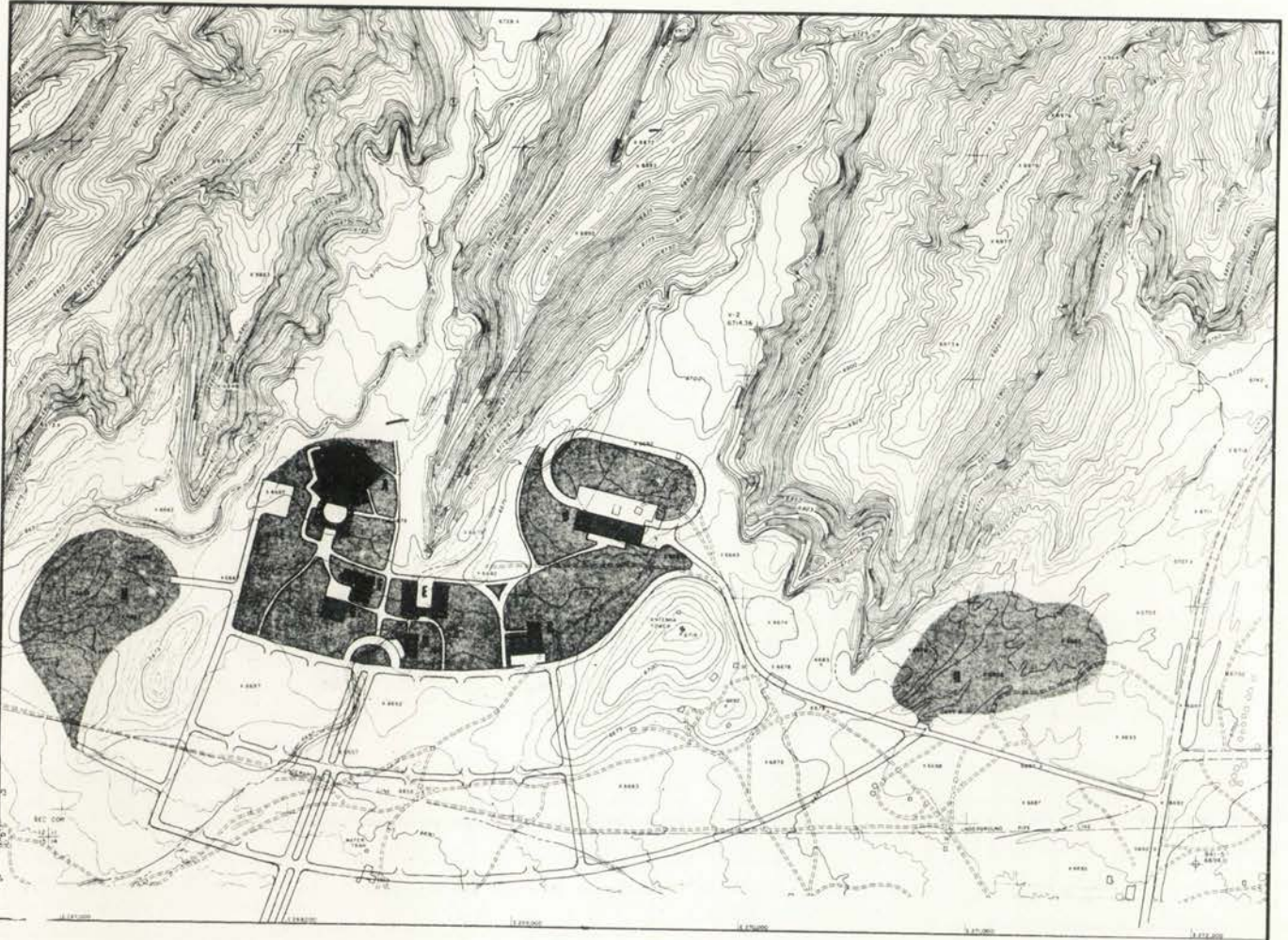
ASSOCIATION





 **LOCATION MAP**

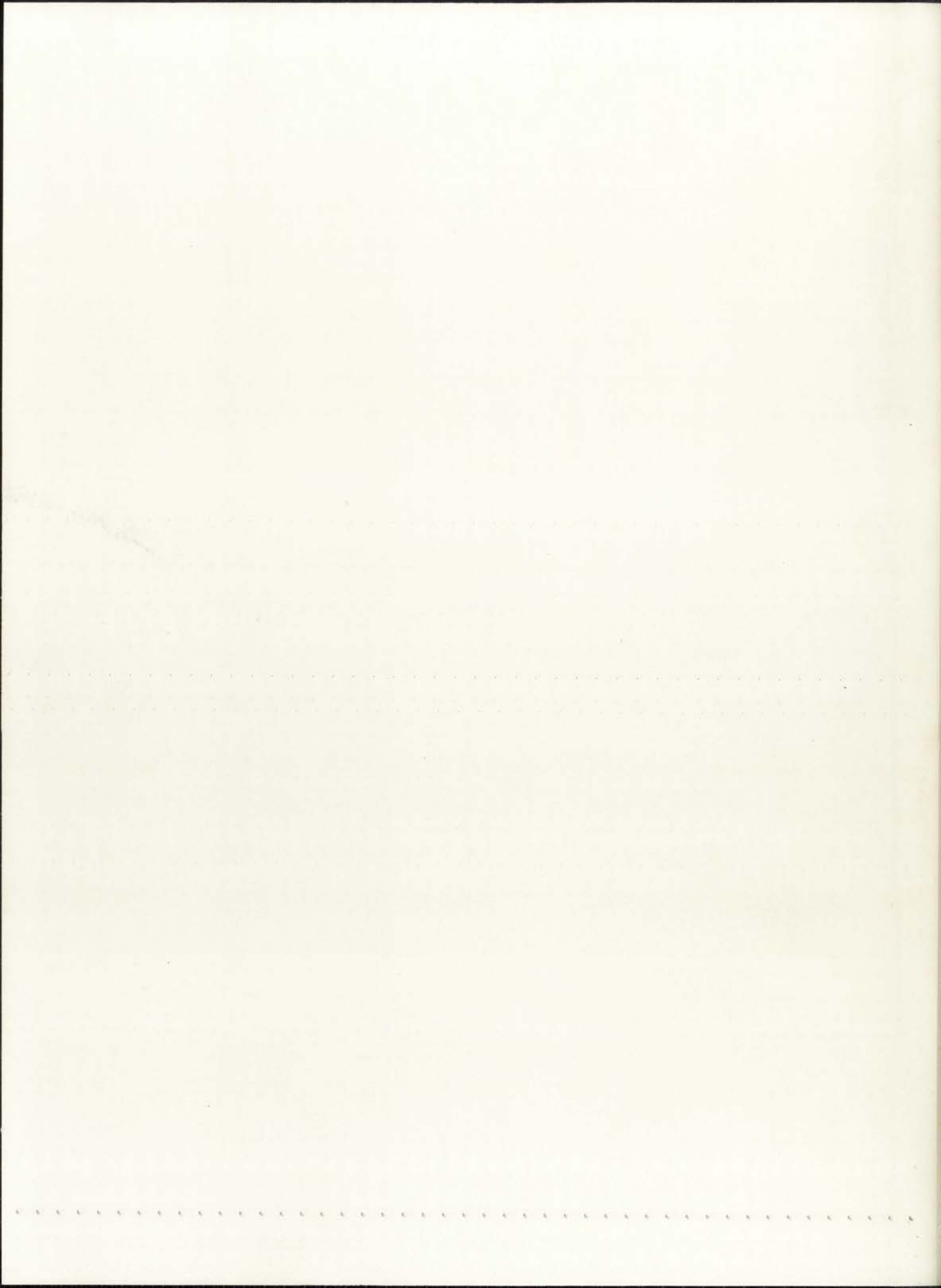


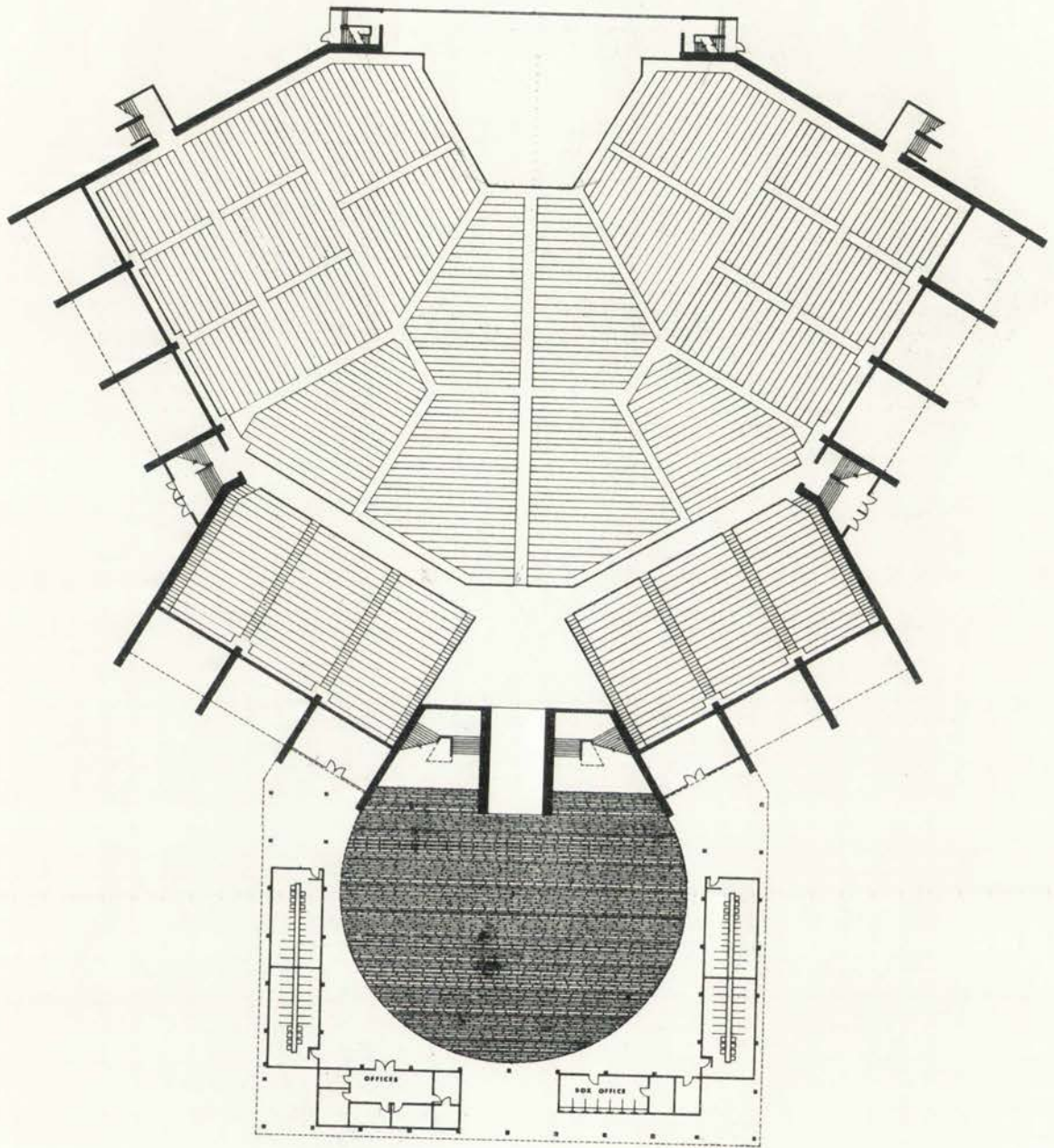


SITE PLAN

1"=200'

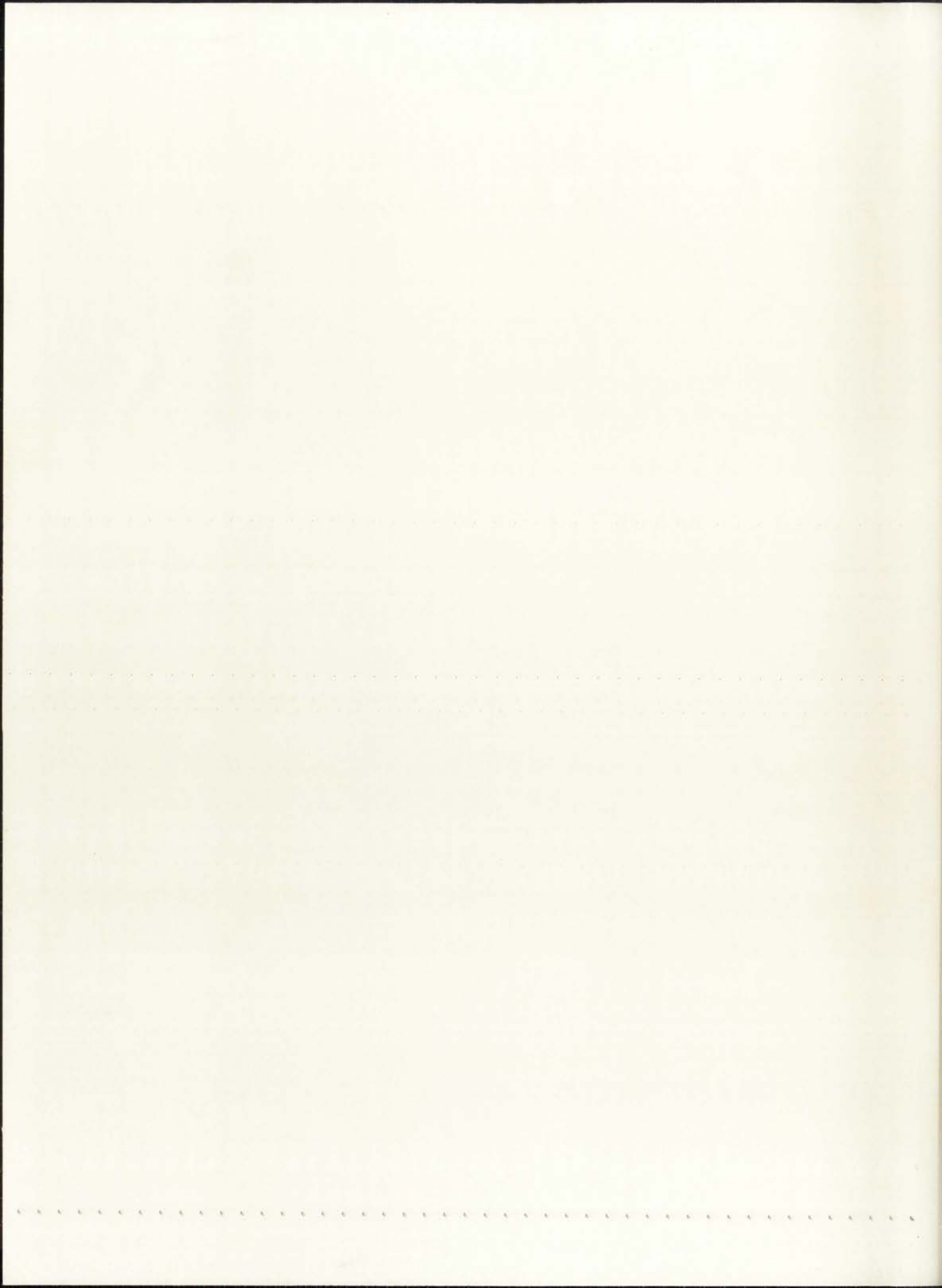
- A. ARENA
- B. RODEO ARENA
- C. RESEARCH CENTER
- D. VISITOR CENTER
- E. ARTS AND CRAFTS
- F. MUSEUM
- G. INDIAN HALL OF FAME
- H. CAMP GROUNDS

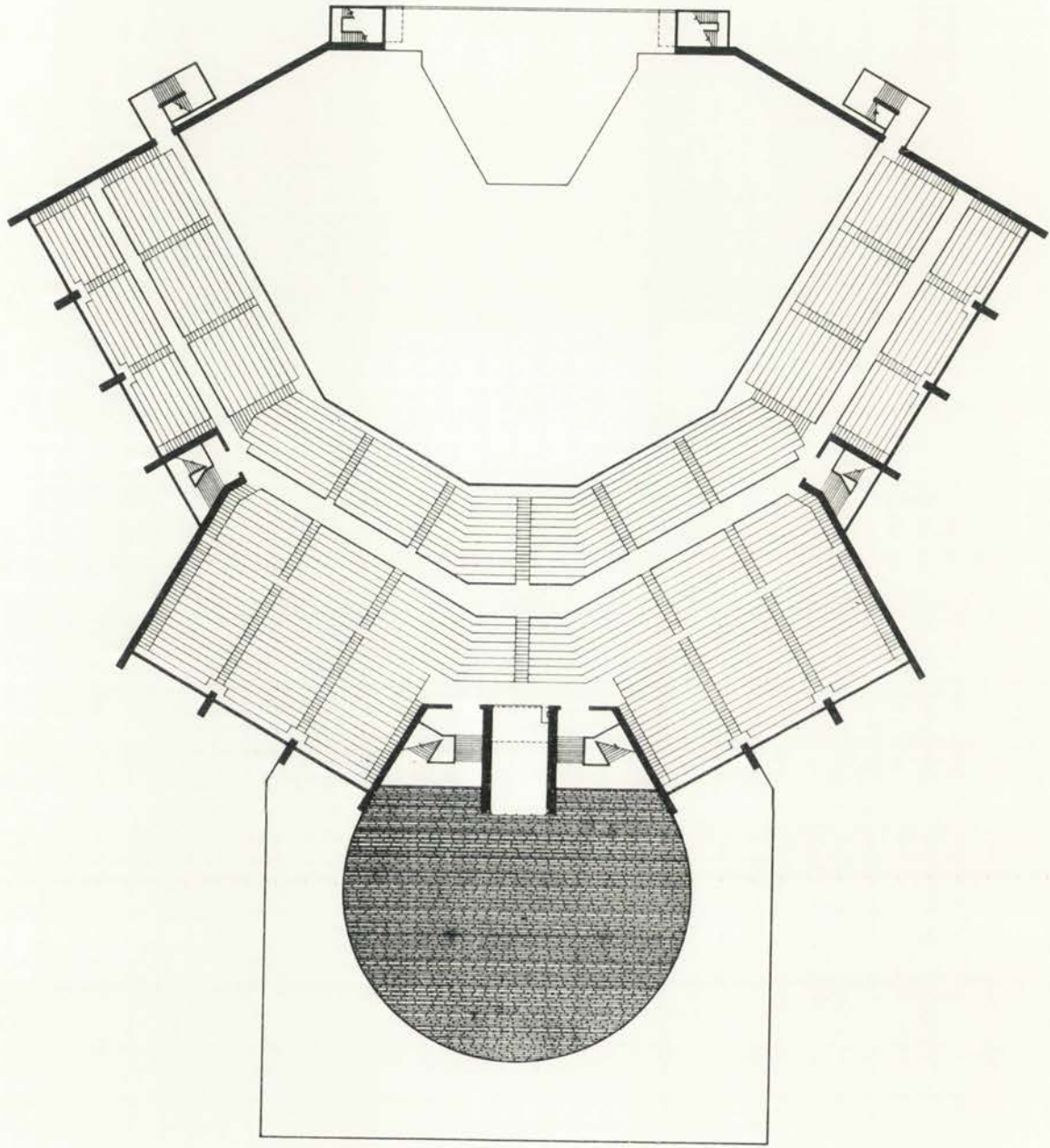




MAIN FLOOR PLAN

1/8" = 1'-0"

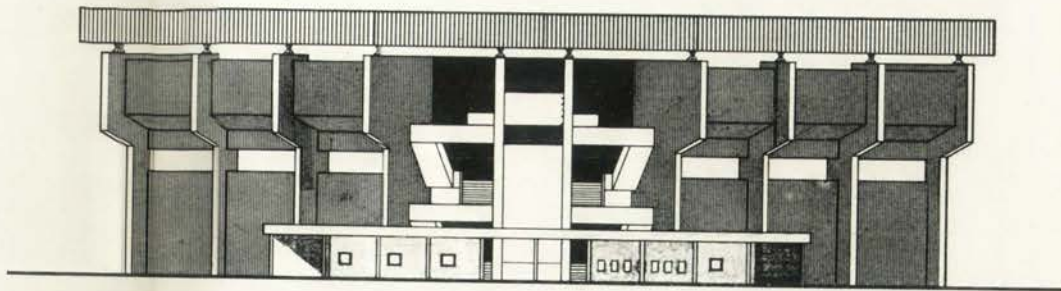




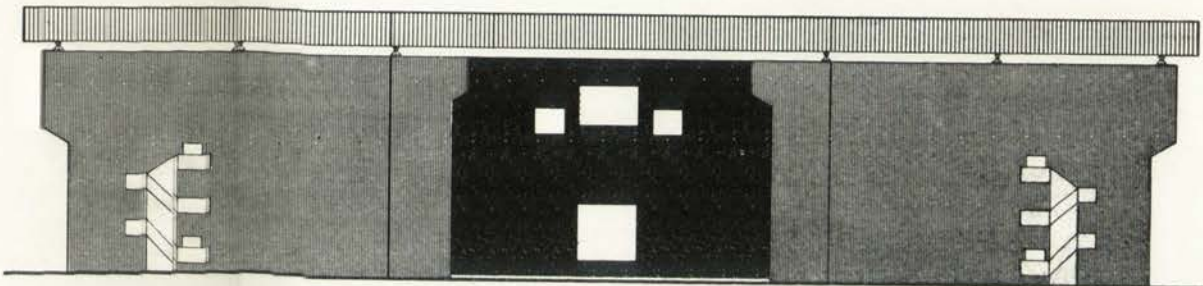
BALCONY PLAN

2-0-00

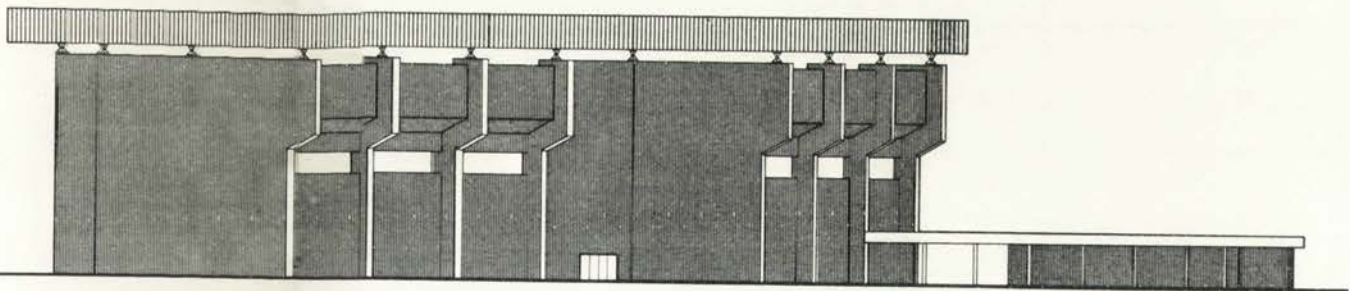




SOUTH



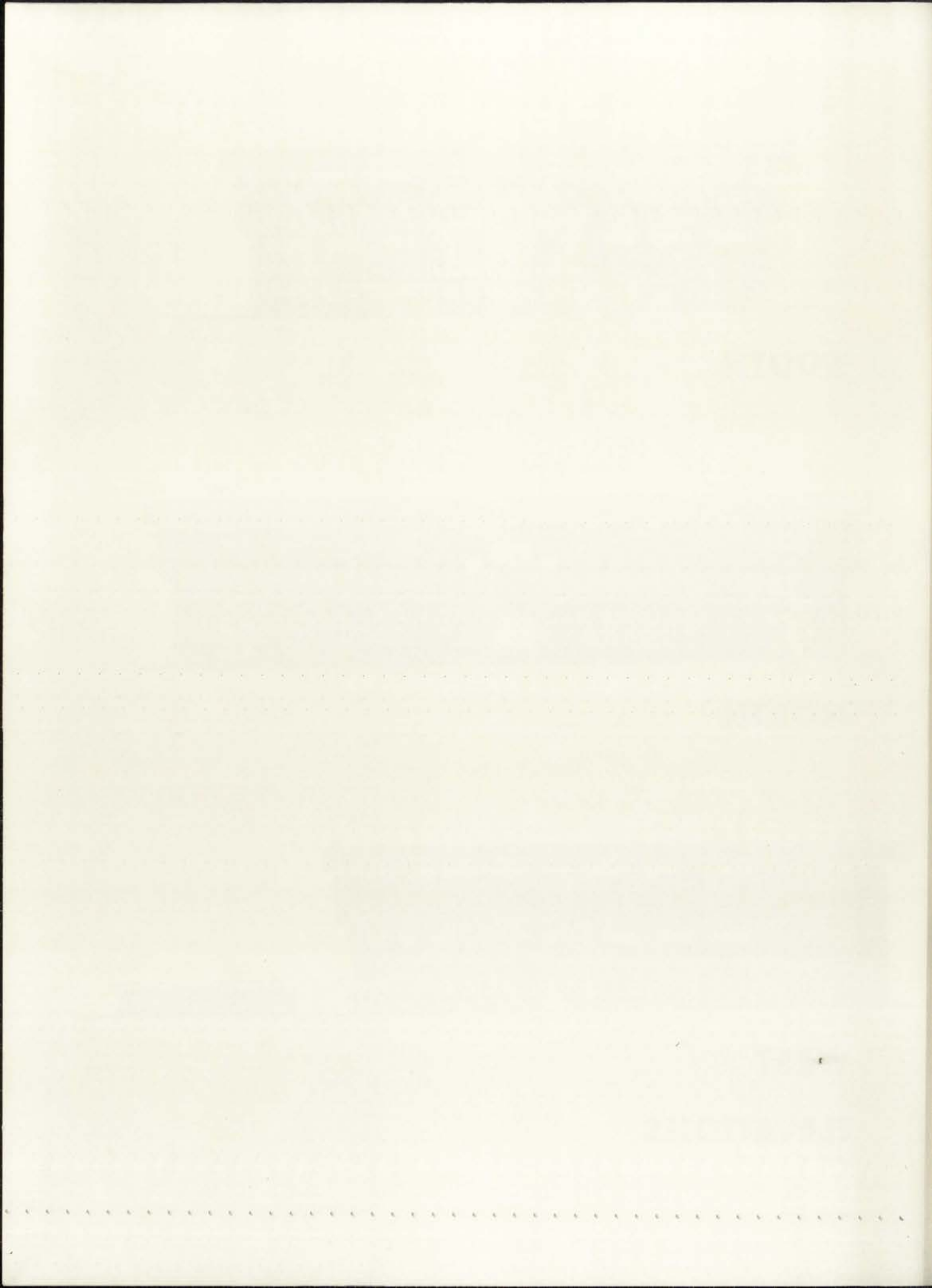
NORTH

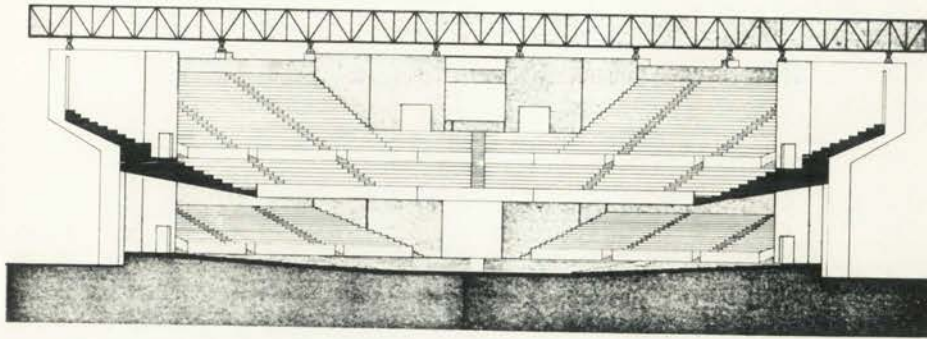


WEST

ELEVATIONS

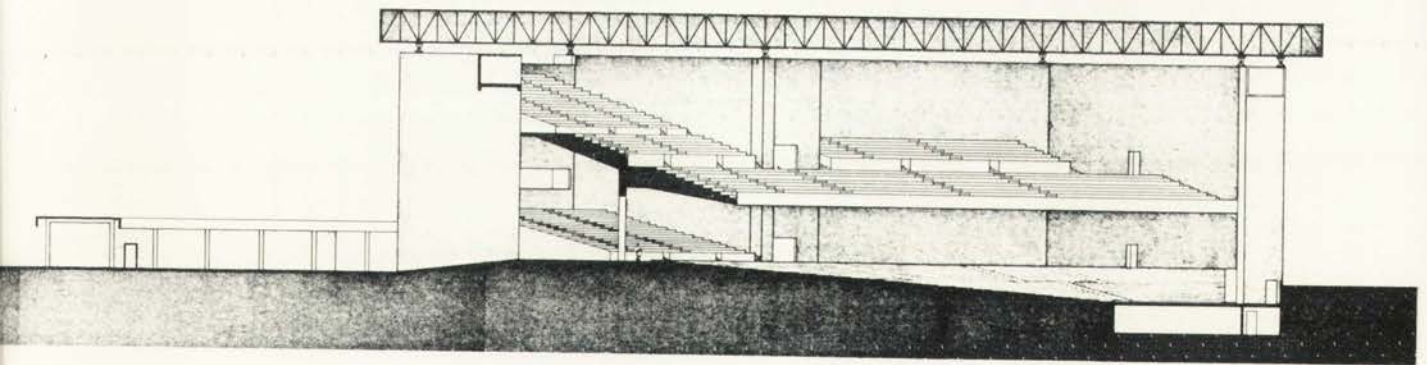
Handwritten mark or signature.





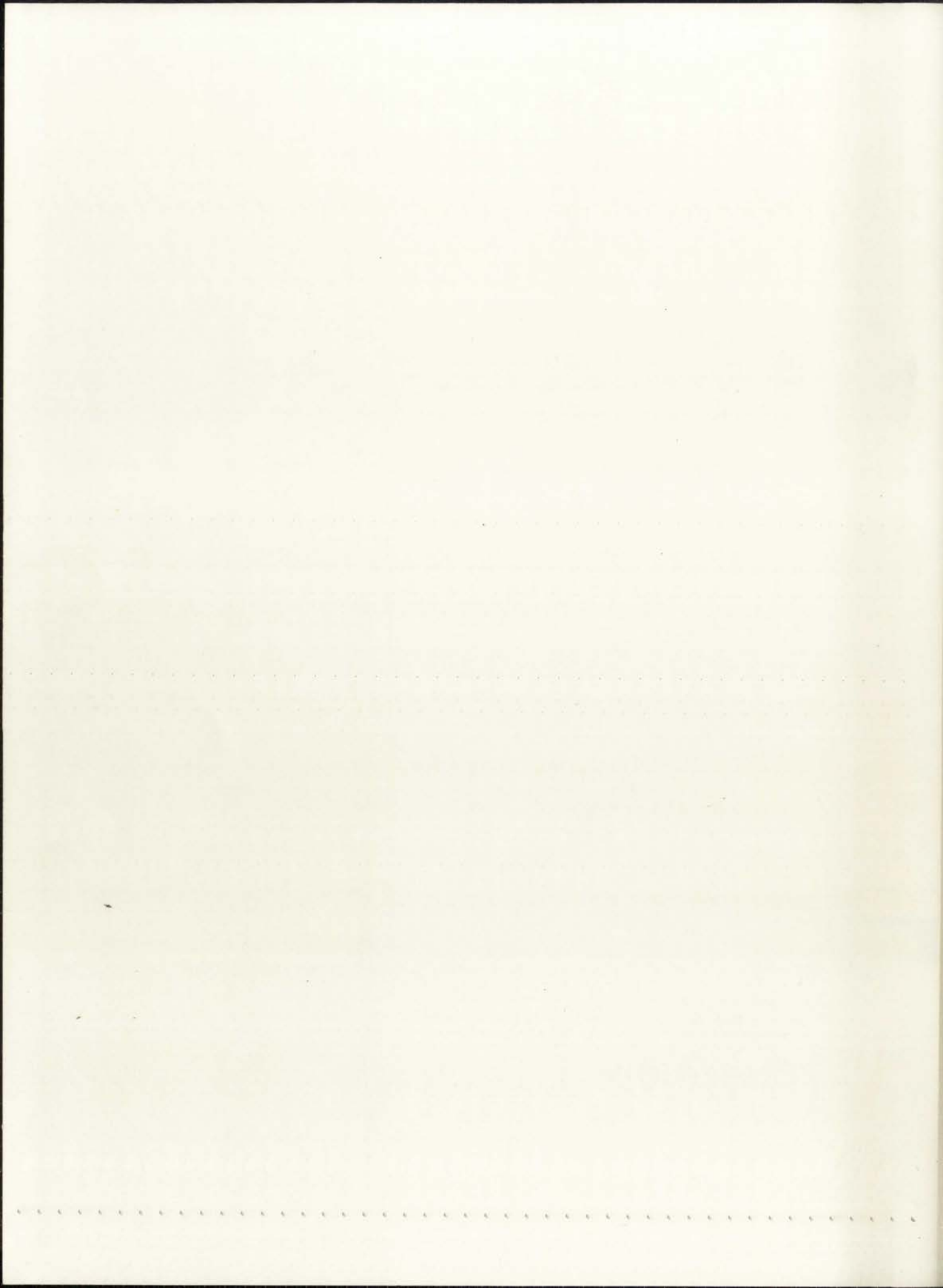
TRANSVERSE SECTION

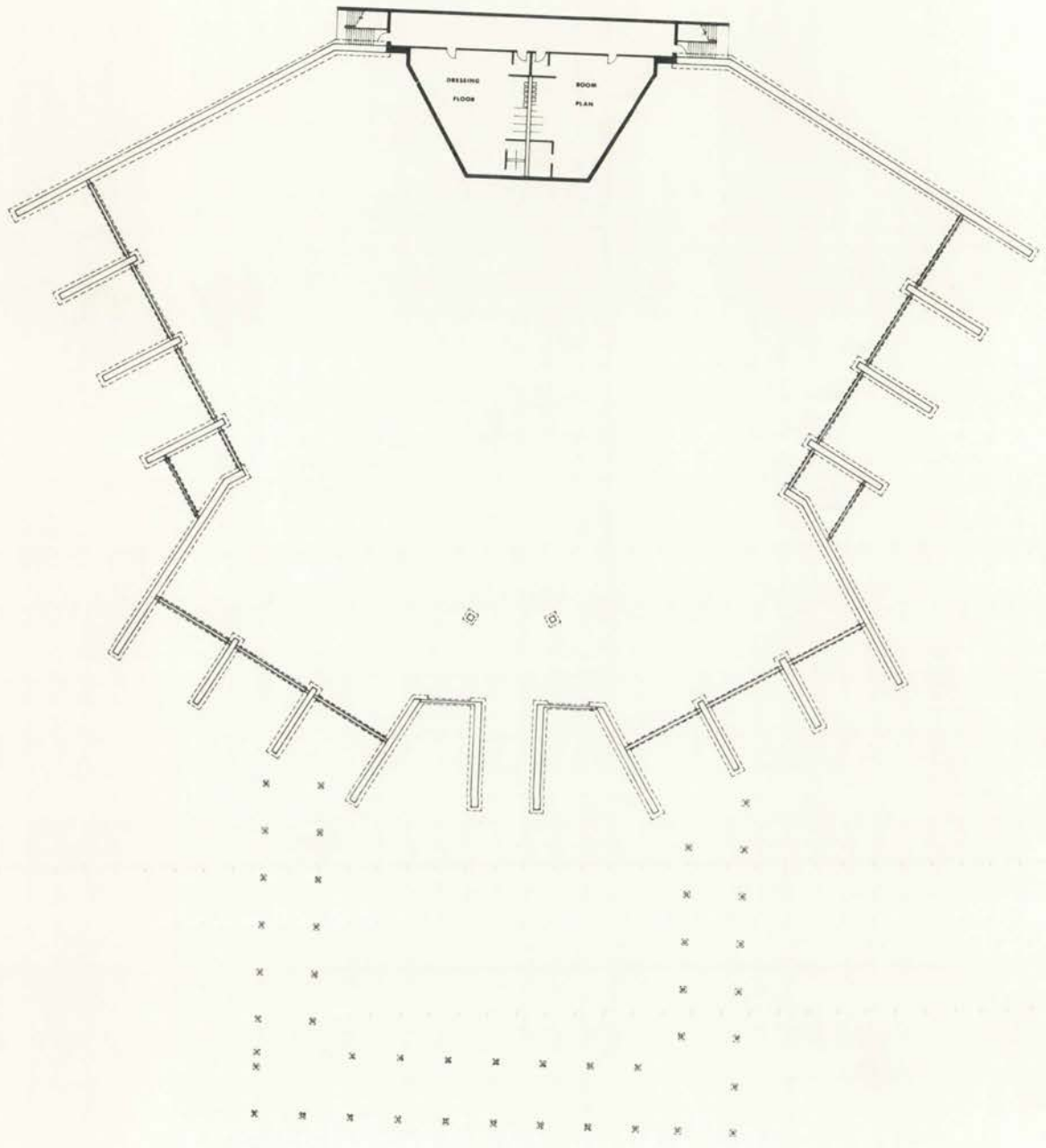
1/4" = 1'-0"



LONGITUDINAL SECTION

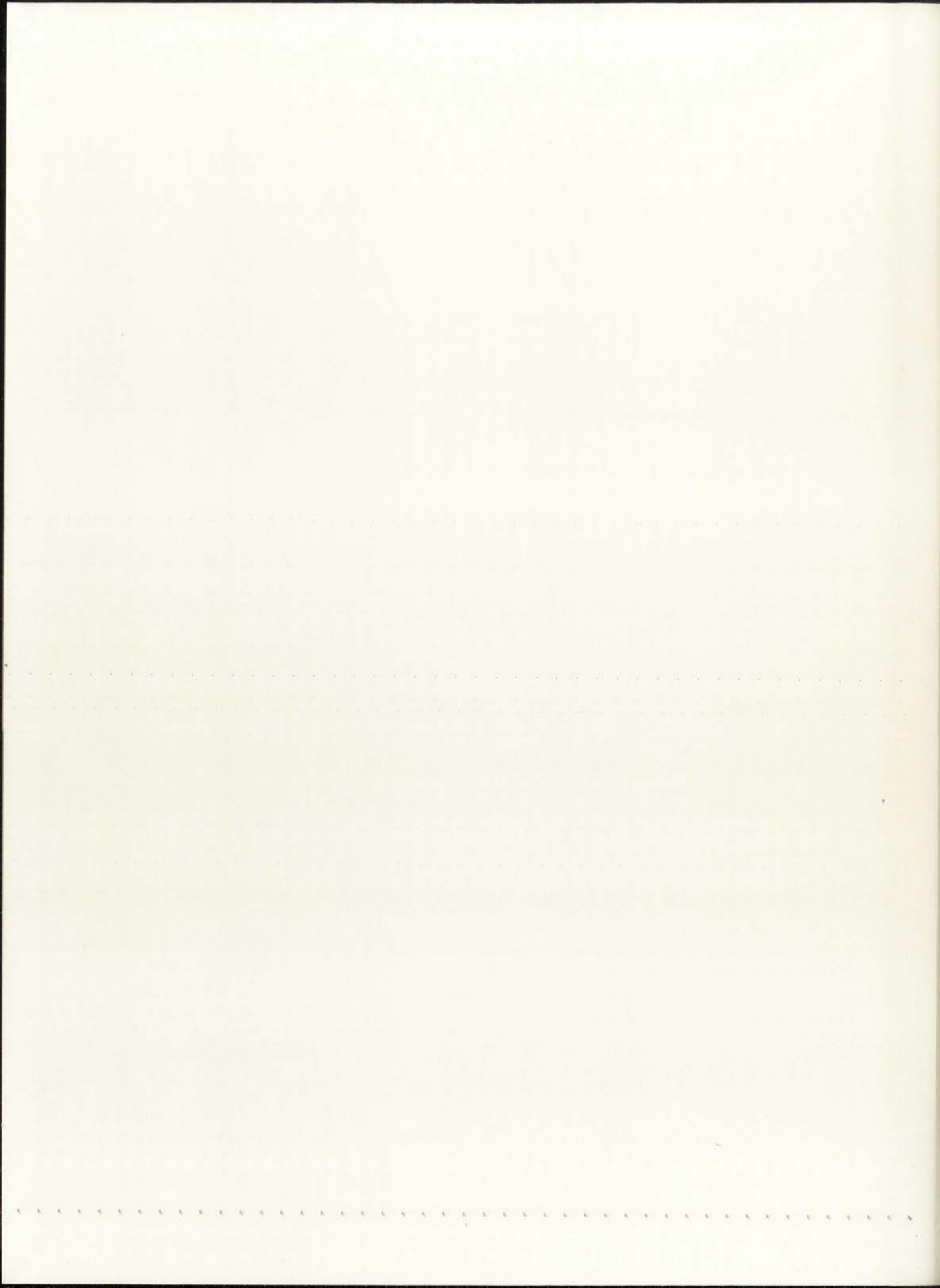
1/4" = 1'-0"

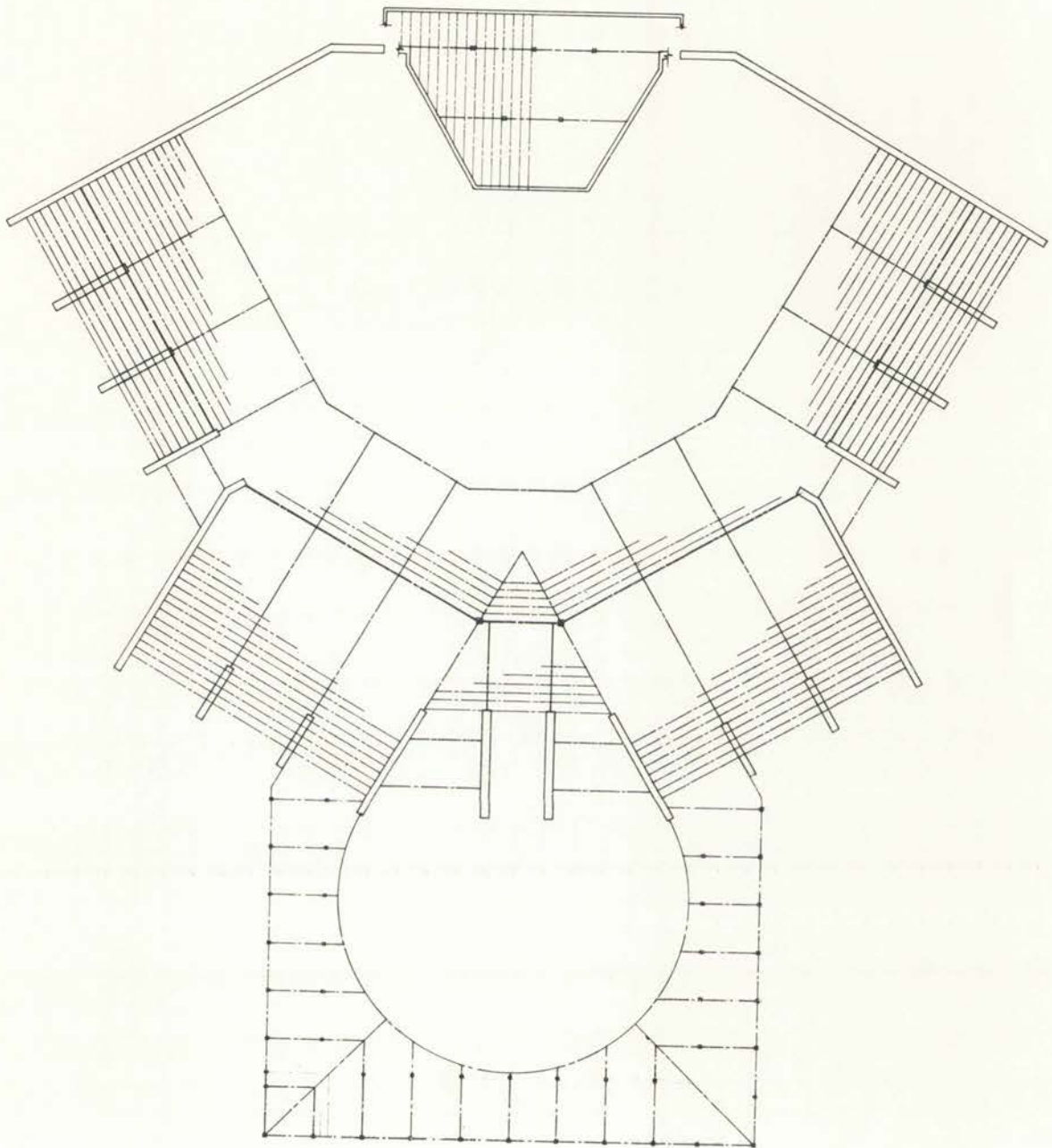




FOUNDATION PLAN

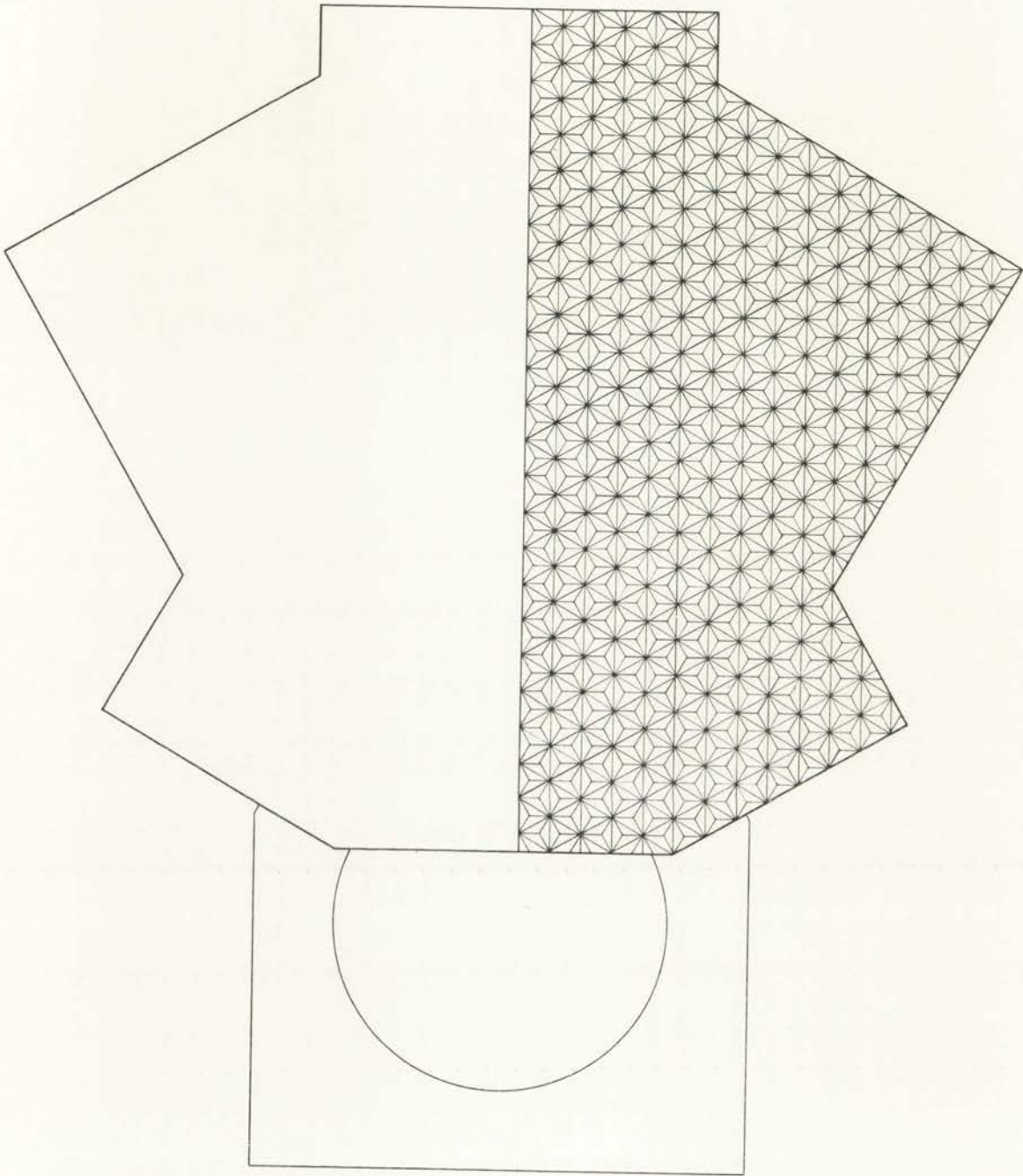
1/4" = 1'-0"





FRAMING PLAN





ROOF FRAMING PLAN

1/4" = 1'-0"

