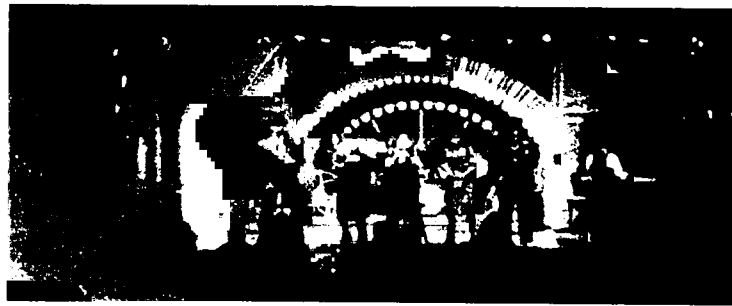


A Black Box Theater: A Place for Artistic Experimentation



Santa Fe, New Mexico
Jennifer Youssef



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Experimentation

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By

Jennifer Youssef

Submitted to the Faculty of the College of
Architecture of Texas Tech University in Partial
Fulfillment for the Requirements for the
Degree of


 Bachelor of Architecture 

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May 2000

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Acknowledgements

This program is dedicated to my parents and sisters who have loved and supported me through out the whole process. Thank you for being there from the beginning.



Abstract

Architecture is related to sculpture through its mutual dependence to whole forms and light. This theory will be applied to a black box theater in Santa Fe, New Mexico that will seat approximately 400 people. The theater will have a lounge bar which will be a place for people to gather at before, during, and after a performance. This theater will also offer support facilities for the stage crew for in house work. Santa Fe is currently lacking an experimental theater, and having one of the largest art and theater markets in the world, it will be suitable.



THEORY



Theory

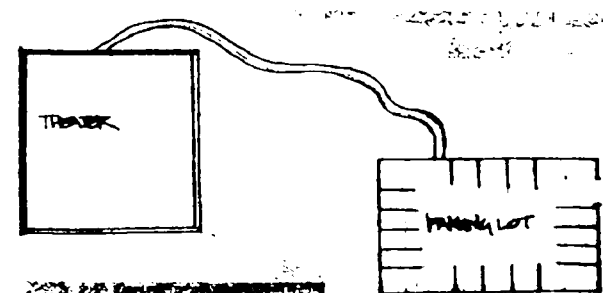
Architecture relates to sculpture through its mutual dependence to whole forms and light. Like a statue, the form of a structure should form an abstract working body of light, shadow, and texture. This architecture should be capable of being molded and carved into a form that reflects the buildings function and context. By designing architecture as sculpture, it will do three things: one, it will reflect the movement of people; two, it will use light and shadow to enhance textures and forms; and three it will reflect the surroundings through abstract forms.

Theory Issue

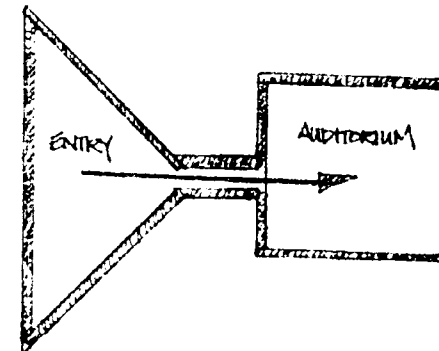
The building should express movement of people in the audience. The people in the building that will express movement are the audience members. The audience will progress through a number of spaces before they reach their destination. The movement through these rooms should be expressed and the movement for the different rooms should also be expressed.

Potential Design Responses

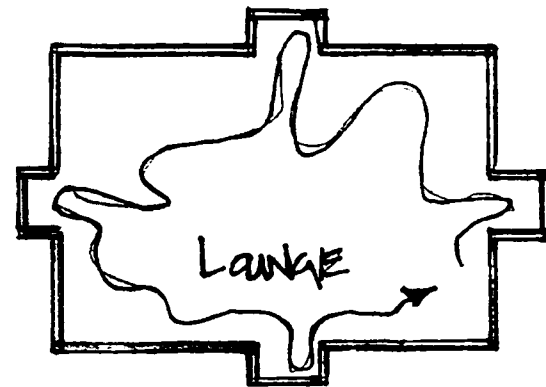
A potential design response to this issue is to create a meandering path from the parking lot to the entry. Creating a wandering path will give the theater a progression from outdoors to indoors.



The theater will express the movement of the people by creating a funnel from the entry to the auditorium. These spaces will express movement by creating a space for people to enter fluidly. This space will narrow as they move from the lobby to the auditorium. It is important for the entry spaces to be fluid so people will not collide into each other in the process of entering the auditorium.



The theater should also express movement in the circulation of the lounge by creating alcoves so the movement of socializing will not interfere with the circulation. The movement in the lounge is important because it is an area that will be used before, during, and after the performance. This space will express movement by creating niches in the room for when the movement stops, it won't interfere with the movement of the other people mingling and socializing.



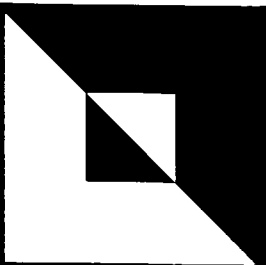


Theory Issues

Since sculpture is dependent on light and shadow, the theater should be designed with these elements to enhance form, texture, and safety. Light will act as a work of art inside the theater, by helping to create shadows and demonstrate the textures and materials of the theater. Light will also be necessary to promote safety and the well being of the patrons for the journey from the parking lot to the theater.

Potential Design Response

A potential design response is to create a path with ground lighting from the parking lot to the theater for people who come to the performances at night. The lighting on the path and in the parking lot should help to provide safety and should act as a transition from the outdoors to indoors. This lighting should keep shadows to a minimum to avoid dark places in the parking lot.



Another Potential design response is to create a transition from light to dark by gradually washing the walls with a flood light from the opposite wall. This lighting will be used from the foyer to the auditorium. The lighting should help to prepare the patrons for the darkness in the theater and create a pleasant transition from the theater to the outdoors.



Facility



Facility Epistemology

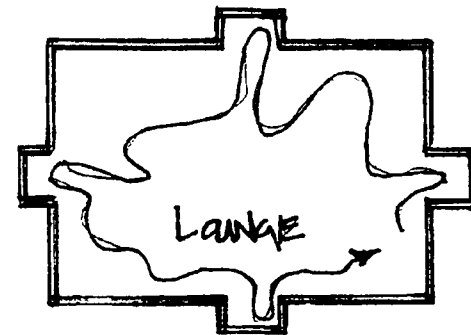
As early as 1914 a group at Teachers College in New York put together bleachers to create a small theater in the round. An ancient theater shape, this kind of stage was never used for drama in the great coliseums in Greece and Rome. This new usage was the beginning of a revival. The audience surrounds the stage on all sides. This arrangement puts the greatest number of the audience in intimate proximity with the performer. The other people were gradually won into this time saving stage, which automatically minimizes the expensive and elaborate seating. The period following World War I was exciting in both Europe and in American drama. Inspired by a fresh approach to writing and the new European Expressionistic designers and producers helped to launch a new attitude toward stagecraft in the US. This helped the phenomenon of the black box. The black box theater grew out of financial necessity, just an empty room in which artists with an imagination creates new worlds. Buildings that were not meant to be theaters were painted black, rigged with lighting, and outfitted with seating. As this type of theater became more public, theaters were designed in this style. Theaters in black boxes range widely in style, genre, content, and audience, but it all has one defining characteristic: entertainment.

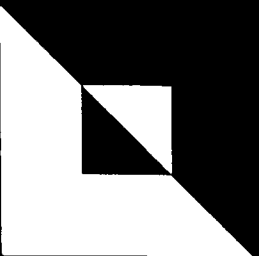
Facility Issue

The experimental theater should be flexible to incorporate many different types of performances. The creativity of the actors and directors should not be hindered with a set theater space. Transformation should be present not only through costume and makeup but also through the seating and stage arrangements.

Potential Design Response

A potential design response is the theater should incorporate seating that can be transformed into any arrangement. Seating should be able to be taken out, raised, and shaped to fit the performance needs. With seating that is flexible the actors and directors can experiment with more than just set pieces. This flexibility gives them the freedom of experimentation.

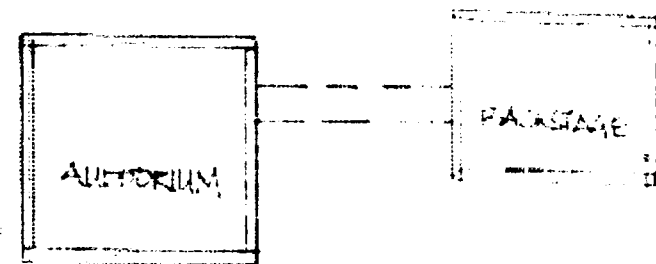




The theater should have a stage that can change in shape for the different performance types. Like the seating, the stage should be able to transform into any desired position for the performances. The stage can move in any direction or be circular or square. This will enable the cast and crew to discover ways to perform their productions.



A backstage should be located far enough away so it does not hinder any of the performances. By having the backstage at a distance, the changing performances can move and change without interfering with the cast and crew members off stage.

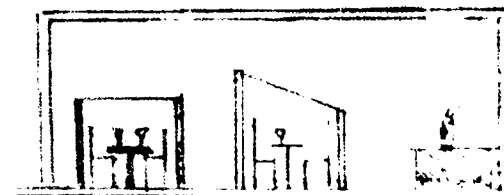


Facility Issue

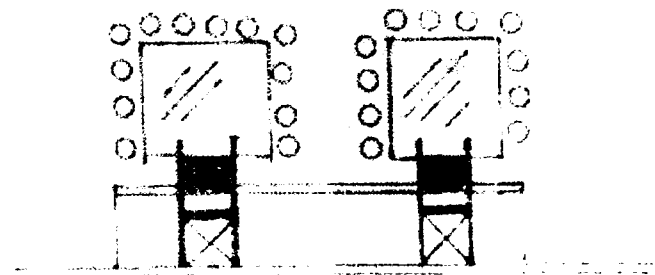
The building should evoke the theatrical cliché of “see and be seen.” The performance is not just given by the actors but the patrons also play a role in every performance. The patrons come dressed up to be seen by other patrons. The audience may have a bigger role than the actors since they produced an energy that will affect the performance in a positive or negative way.

Potential Design Response

By creating different lighting and settings for different seating arrangements the lounge bar should function like a set in which the audience can perform. This place will be one of the spots for the audience members to interact. The lounge will give the patrons a place to have their own performance as they discuss the performance and interact with the directors and actors from the show.



The bathroom should be set up as a theatrical make up room by creating vanities for the audience members. These vanities should be complete with director chairs at each sink. These should be reminiscent of a makeup room where the audience can check their appearance while they are at the theater.





Context



Context Analysis

Santa Fe is located in the north central part of New Mexico. The city is situated in a valley formed by the Rio Grande and is molded by two mountain ranges, the Jemez and the Sangre de Cristo. The city sits at an elevation of 7000 feet above sea level. Santa Fe was founded in 1607 by the Spanish and is the second oldest town in the US. The capital of New Mexico has almost 60000 citizens. The site sits just south of the Santa Fe Opera House. The soil on the site is rough, broken, and hilly. The plant life consists of short grasses and the earthworms and prairie dogs keep the soil active. The coldest month is January with the high temperature being approximately 40F. The warmest month is August with temperatures reaching almost 91 F. Santa Fe gets 14 inches of rainfall but almost 32 inches of snow. Snow will fall from October to the end of April. Santa Fe has tolerable summers with 300 days of sunshine and 50% humidity. Some of the residents of this city are the wealthiest people in America. These upper-class residents and the large amount of tourist help make this city one of the largest art markets in the world. The citizens of Santa Fe are avid pursuers of the arts and want the city to keep growing as a haven for artists and performers.

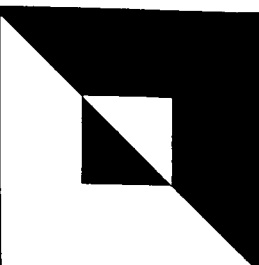


Context Issues

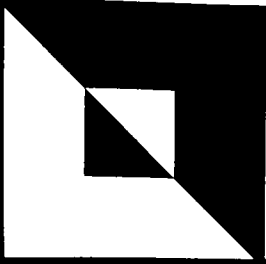
The theater should fit into its climatic region by addressing the seasons and wind factor. The wind in the region should be addressed in the design of the theater by creating barriers and visual access to the wind.

Potential Design Response

A potential design response is to create a vestibule. By creating a vestibule it will minimize the amount of gusts that will blow into the lobby. Giving people this visual access to the weather will allow people time to prepare for rain, snow and sunshine.



Wind should be minimized through barriers. These barriers should be visually pleasing and help to control the wind. Protecting people from the wind will increase their comfort level and help the audience enjoy the performance.



Therefore the theater should offer a covered drop off point so the patrons will be protected from rain or snow. By having this drop off the audience can avoid the walk from the parking lot to the theater in bad weather.

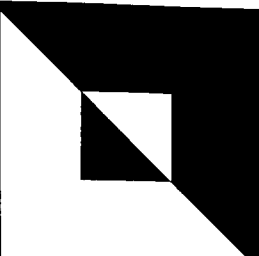


Context Issue

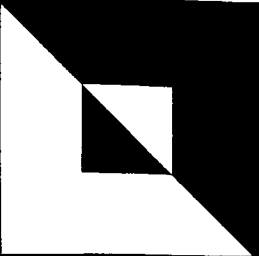
The characteristics of the site will be considered as a motive for design, The site slopes down to the highway and the theater should accommodate the natural slope of the land instead of trying to hide it.

Potential Design Response


Slope of the land should be mimicked through the manipulation of contours. Putting the building on the slope will give natural and built definition to the site and create an interest in the building.



The proximity of HWY US 84/285 should be addressed by providing barriers to the visual and physical site. Providing an obstruction from the noise should muffle the traffic on the high way. The traffic should be hidden to prevent unsightly views of the highway.



Design indicators should be taken from both the Santa Fe Opera House and the site to create a facility that fits in its context. The site should fit in the context of the Santa Fe Opera House since it will have visual access to it. By placing the building in the context of the Opera House they will complement each other instead of competing with one another.



Space Analysis



Space: Bar

User: all people old enough to drink

Maximum Occupancy: 200

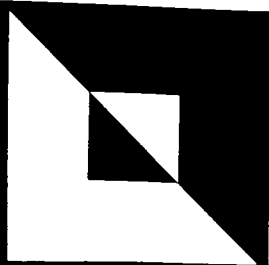
Sq. ft/ person: 10 sq ft

Total Sq. ft: 2000 sq ft

No. of Units: 1

Space Determination:

The bar is the space where the audience and cast members can get refreshments. The counter of the bars should be as long as possible, with a maximum demand likely to be concentrated in intervals of fifteen minutes and for after the performance. Seats should give maximum service in a minimum space. The bar should be a soft place for people to feel comfortable and to enjoy the performance after it has finished.



Space: Foyer

User: all ages, sexes, and participants

Maximum Occupancy: 200

Sq. ft/ person: 20 sq ft

Total Sq. ft: 400 sq ft

No. of Units: 1

Space Determination:

The purpose of the foyer is to provide a light and sound barrier between the lobby and the auditorium. It should not interrupt the normal flow of people in or out of the auditorium.



Space: Ticket Booth

User: manager and employees

Maximum Occupancy: 2-3

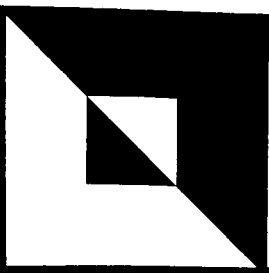
Sq. ft/ person: 30 sq ft

Total Sq. ft: 100 sq ft

No. of Units: 1

Space Determination:

The box office operation is one of storage and retrieval of information and tickets. A large amount of storage is required for storing and seating plans for various performances, stationary, brochures and tickets. Lighting and counter area will be important to the staff that will work here. Lighting should be bright for reading and the counter areas should be large enough for the staff.



Space: Shops

User: crew and technicians

Maximum Occupancy: 5

Sq. ft/ person: 40 sq ft

Total Sq. ft: 200 sq ft

No. of Units: 4

Space Determination:

There should be four shops for the different activities for the stage crew to work in. There should be one for painting, lighting, carpentry, and wardrobe. This will be the main work area for the crew to build or make the sets, props, costumes, and lighting. The space should incorporate bright lighting for work and flexibility for space.



Space: Storage Rooms

User: technicians, crew, and staff

Maximum Occupancy: 2-5

Sq. ft/ person: 15-250 sq ft

Total Sq. ft: 150-500 sq ft

No. of Units: 5

Space Determination:

This space is necessary for the technical crew to store items for wardrobe, lighting, and scenery. This area will be used before and after performances also for temporary and permanent storage. The staff will also need storage for office supplies and other amenities. These areas should be flexible and functional.



Space: Master Control Booth

User: managers of the stage and technicians of light and sound

Maximum Occupancy: 2-3

Sq. ft/ person: 100 sq ft

Total Sq. ft: 200 sq ft

No. of Units: 1

Space Determination:

This area is for controlling the lighting and sound systems used for all performances. There should be direct access from this booth to backstage without passing through the auditorium.



Space: Stage Lounge/ Workroom

User: stage crew

Maximum Occupancy: 4-5

Sq. ft/ person: 25 sq ft

Total Sq. ft: 150 sq ft

No. of Units: 1

Space Determination:

This should be a place for the stage crew to relax at before during and after the performances. The lounge and workroom should be a gathering place for the crew to unwind and share ideas. The space should provide a tranquil place for the stage crew to get reenergized and perform their tasks.



Space: Principle Dressign Room

User: main actors

Maximum Occupancy: 4

Sq. ft/ person: 75 sq ft

Total Sq. ft: 350 sq ft

No. of Units: 1

Space Determination:

The principle dressing room should serve the head actors as they prepare for a performance. These dressing rooms should be more profuse than the regular actor dressing rooms. Concise arrangement is necessary for supervision and it should have access to the restrooms and showers and close in proximity to the green room. The dressing rooms should offer a quiet place for relaxation and reflection.



Space: Dressing Rooms for the Support Actors

User: supporting actors

Maximum Occupancy: 20

Sq. ft/ person: 10 sq ft

Total Sq. ft: 200 sq ft

No. of Units: 1

Space Determination:

The support dressing room should serve the supporting actors as they prepare for a performance. These dressing rooms should be less profuse than the principle actor dressing rooms. Concise arrangement is necessary for supervision and it should have access to the restrooms and showers and close in proximity to the green room. The dressing rooms should offer a quiet place for relaxation and reflection



Space: Makeup Room

User: makeup artist and actors

Maximum Occupancy: 3-4

Sq. ft/ person: 30 sq ft

Total Sq. ft: 125 sq ft

No. of Units: 1

Space Determination:

The makeup room should offer close proximity to the dressing rooms. This space should be a place for transformation from actors to their characters. The makeup room should offer spaciousness and good lighting for putting on their makeup.



Space: Green Room

User: Actors and Guests

Maximum Occupancy: 20

Sq. ft/ person: 20 sq ft

Total Sq. ft: 400 sq ft

No. of Units: 1

Space Determination:

This area serves as a waiting space for the actors between sets and rehearsals. It should also be a warm place for family and friends to gather in after a performance. The green room should be backstage in close proximity to the performing areas and the dressign rooms. Sound and lighting from the stage and performance aareas should be insulated.



Space: Theater Directors Office

User: theater director

Maximum Occupancy: 1

Sq. ft/ person: 150 sq ft

Total Sq. ft: 150 sq ft

No. of Units: 1

Space Determination:

This is the personal space for the general manager of the theater whose job is to supervise the tickets, bar, and to see to the needs of the public. This office will need to be located near the box office and close to the lobby space.



Space: Staff Area

User: staff

Maximum Occupancy: 3-4

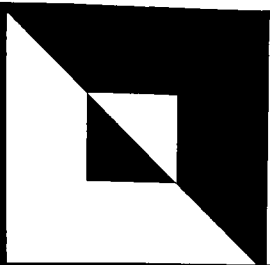
Sq. ft/ person: 50 sq ft

Total Sq. ft: 200 sq ft

No. of Units: 1

Space Determination:

The staff will come here to break and perhaps get a cup of coffee. The room should be able to hold small kitchen appliances and have enough room for a table so the staff can sit down to eat.



Space: Stage

User: Actors

Maximum Occupancy: 20

Sq. ft/ person: 125 sq ft

Total Sq. ft: 1500 sq ft

No. of Units: 1

Space Determination:

The stage should be as flexible as possible and be located in a spot in the auditorium to give the audience maximum viewing opportunities. The flexibility of this performance space should be maximized to give the actors and crew enough freedom to perform and experiment.



Space: Auditorium

User: audience members

Maximum Occupancy: 200-300

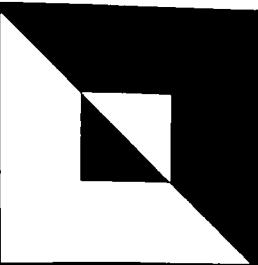
Sq. ft/ person: 20 sq ft

Total Sq. ft: 4000 sq ft

No. of Units: 1

Space Determination:

As an audience enters a theater the first impression should be stimulating and pleasurable. The auditorium to be successful must mold into the audience as a unit. Direct access fro the foyer, emergency exits, and the stage or acting area. The auditorium should be as experimental as the performances and give a non-descript introduction to the performances. The auditorium should be all black to live up to its name as a black box theater.



Space: Stage

User: actors

Maximum Occupancy: 20

Sq. ft/ person: 125 sq ft

Total Sq. ft: 1500 sq ft

No. of Units: 1

Space Determination:

The stage should be as flexible as possible and be located in a spot in the auditorium to give the audience maximum viewing opportunities. The flexibility of this performance space should be maximized to give the actors and crew enough freedom to perform and experiment.



Space: Offices

User: staff

Maximum Occupancy: 1

Sq. ft/ person: 100 sq ft

Total Sq. ft: 100 sq ft

No. of Units: 3

Space Determination:

The offices should have access to the lobby and have enough space for a desk, chair and two visiting chairs. This space should be comfortable and offer freedom to explore the creativity of the staff to prepare and take care of performances.



Space Summary



Total Square Footage

Audience Spaces

Auditorium	5600
Stage	3500
Foyer	600
Lobby	1000
Lounge	800
Cloak Room	240
Ticket Booth	100
Men's public Restroom	250
Women's Public Restroom	250
Bar	2000
Subtotal	14390



Total Square Footage

Technical Support

Stock Room	250
Carpenter Shop	200
Paint Shop	200
Scenery Shop	500
Scenery Storage	300
Storage Room	250
Loading Platform	200
Lighting Shop	200
Lighting Storage	100
Master Control Booth	200
Stage Managers Office	100
Stage Crew Locker Room	200
Stage Lounge/Workroom	150

Subtotal 2850



Total Square Footage

Performers Space

Principle Dressing Rooms (4)	350
Actors Dressing Rooms (12)	200
Directors Room	100
Restroom and Showers (2)	100
Wardrobe Storage	150
Wardrobe Shop	125
Make Up Room	125
Green Room	400
Subtotal	1650



Total Square Footage

Administrative

Theater Director's Office	150
Staff Area	200
Workroom	100
Offices (3)	300
Men's Restroom	100
Women's Restroom	100
Janitor Closet	100

Subtotal 1050

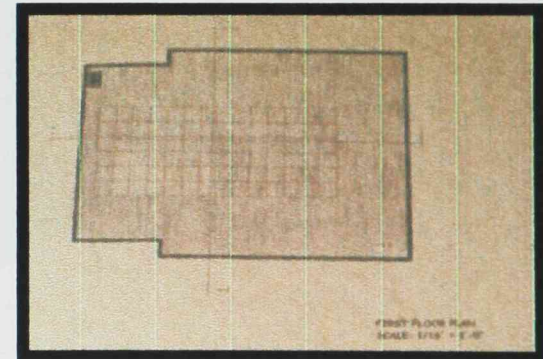
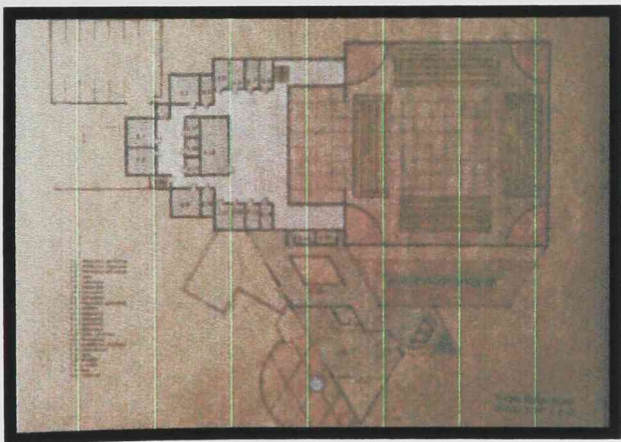
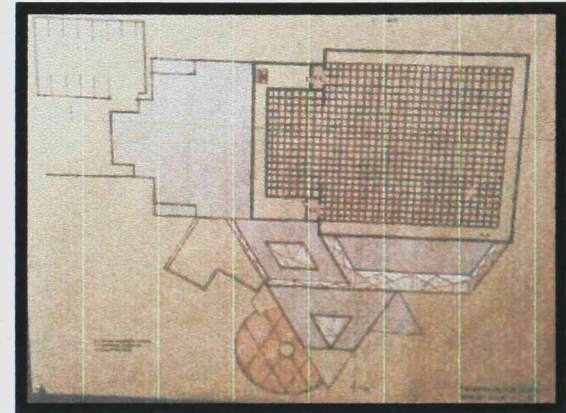
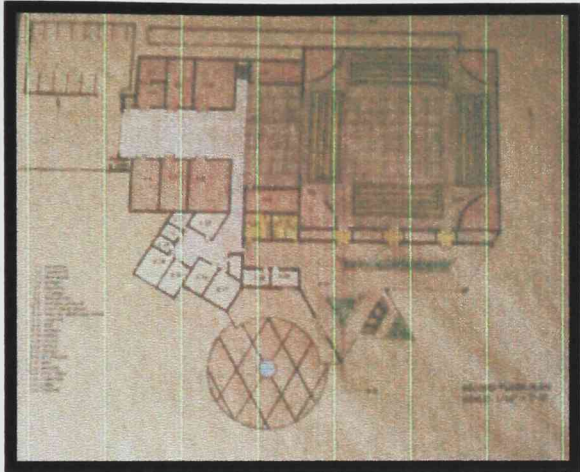
Net Square Footage 19940

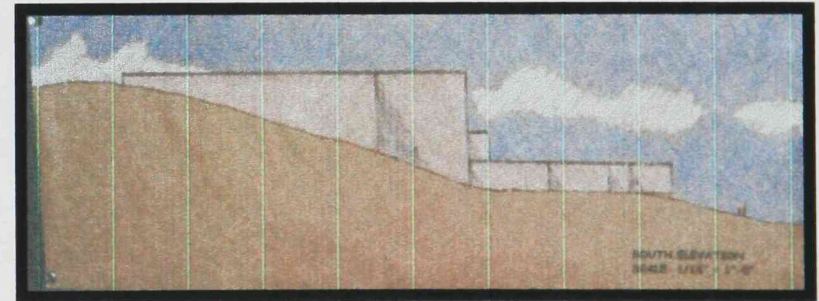
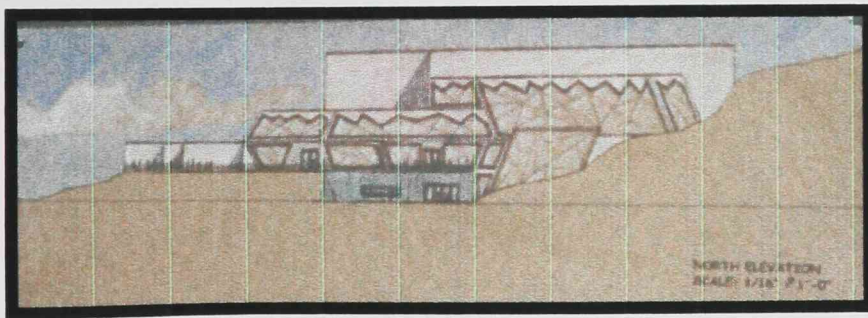
Usable Square Footage 15338
(Net/1.3)=

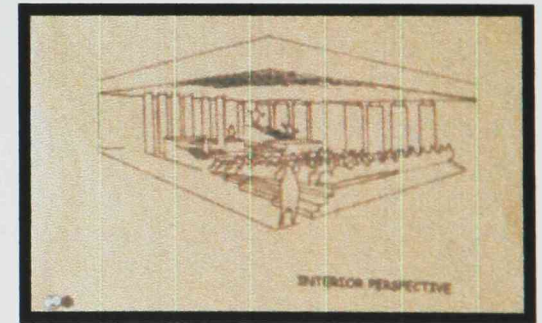
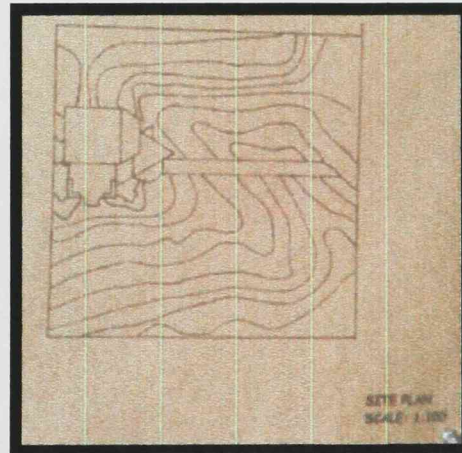
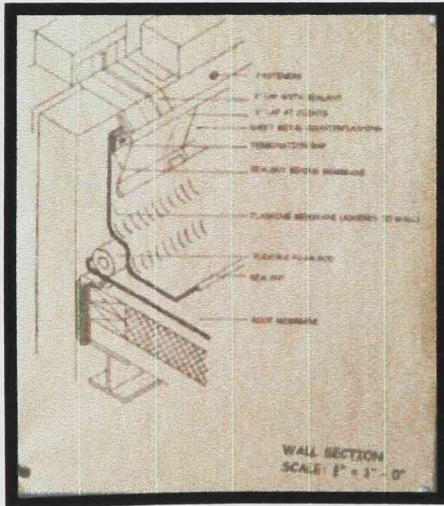
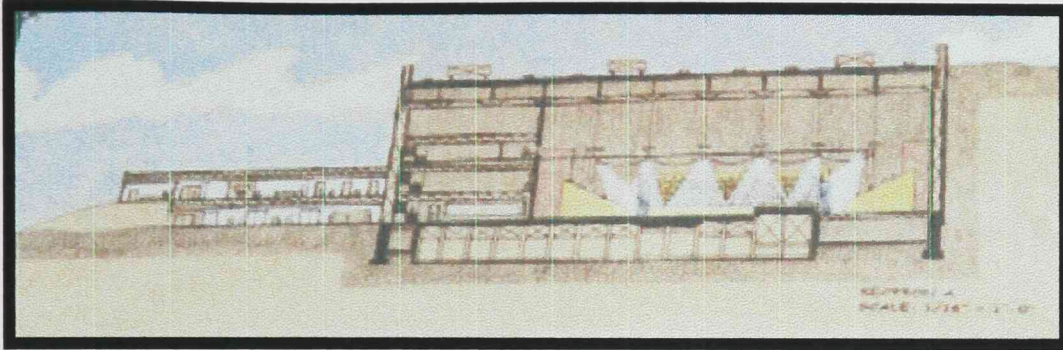
Gross Square Footage 254235
(Net x 1.275)

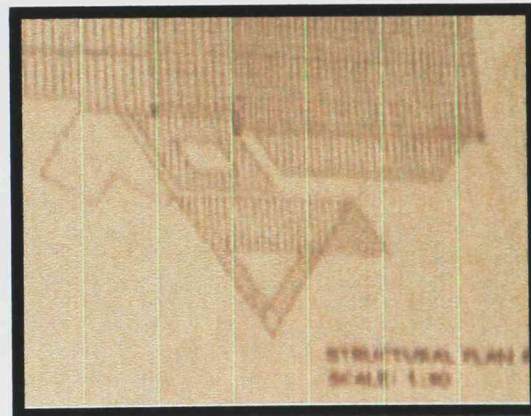
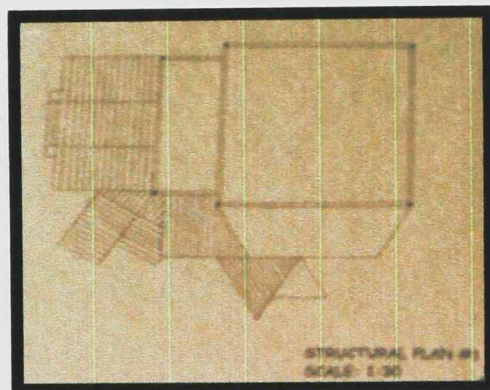
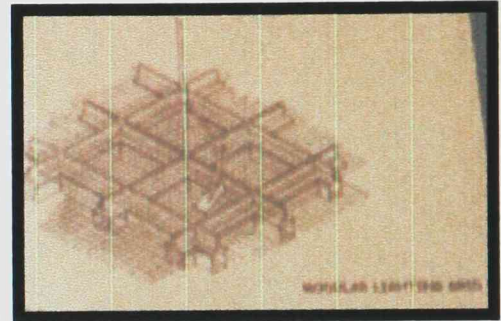
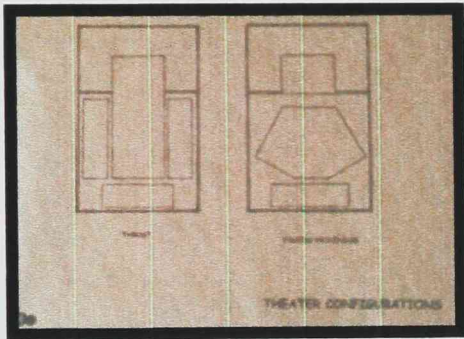


Documentation











Bibliography



Bibliography

American Federation of the Arts; The Ideal Theater: Eight Concepts.
October house, Inc, New York.

McGraw-Hill; Building for the Arts; McGraw-Hill 1978.

Cory, Percy; Community Theater. Pitman Press. 1974.

Burriss-Meyer, Harold & Cole; Theaters and Auditoriums; Reinhold Publishing Corp, New York.

Izenour, George C.; Theater Design; MacGraw-Hill Book, New York, 1977.

Soil Survey-Santa Fe, New Mexico 1975

Mackintosh, Kain. Architectural Record 1984 June.

Solomon, Nancy. Architecture. Flexible Theaters 1992 August.

De Chiara & Callender, Time Saver Standards- Building Types, MacGraw Hill Co. 1973.



Cohen, Heater. Interview by Jennifer Youssef, took notes.

Espineli, TJ. Interview by Jennifer Youssef, took notes.

<http://www.cosler.com/chapin.html>

<http://www.ssthoasu.ca/mab/blackbox.htm>.

<http://www.santafe.org/climate.html>

<http://www.santafechamber.com>