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THE CALDWELL THEATER COMPLEX

By

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THESIS REPORT APPROVALS

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Professor Allan Watts; professor of theater design at the University of Guelph and scenographer.

Mr. Neil Tucker; Chairman of Concorde Archives, Concorde Properties.

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INTRODUCTION

I became fascinated with the world of theater after enrolling in a theater craft and production course during my first semester at the University of Guelph, in Ontario, Canada. Over a period of four years I took several courses related to theater arts including; history, acting and theater production. By the time of graduation, I had participated in several productions as an assistant production manager and designer responsible for sets and lighting.

After completing my degree in Fine Arts at Guelph, I pursued graduate study in interior design at the Rochester Institute of Technology (RIT). Interior design allowed me to explore all facets of design including furniture design and construction. Therefore, my selection of a thesis topic and project combines the knowledge I gained of interior design principles and theory with theater production techniques.

My studies in theater production and interior design allowed me to see the limitations in space planning, ergonomics, and attention to the needs of the theater patrons, performers and support staff in many existing theater facilities. I felt that these needs could be met through design without sacrificing the aesthetics of the theater.

I also discovered during my first year at RIT, that the City of Rochester lacked a unique, modern theater complex which provided patrons with an

intimate theater experience along with facilities to meet and socialize under the same roof before and following a production. The proposed design for the Caldwell Theater Complex satisfies this objective. In addition, such a theater complex brings cultural activities to the heart of a designated heritage area of Rochester - the Brown's Race District. In the design of the Caldwell Theater Complex, the architectural space necessary for a theater, the geographic site, and the needs of the patrons, performers and support staff are taken into account.

A BRIEF ARCHITECTURAL HISTORY OF THEATER

SITE AND LOCATION

Theater is the communication of idea's between performer and audience. It can be said that the oldest form of theater, is the "round". It consisted of a simple tribal gathering around a campfire. However, it is generally held that today's theater can be traced to the ancient Greeks where people met on hillsides surrounding a flat area. The first official permanent stone architectural theater is believed to have been built about 332-326 B.C. It consisted of two spaces, one for the actors, the other for the audience. The performance took place on a flat area of earth. In today's theater, this area is called the stage. Radiating out from the performance area on a gently sloping

hillside was the "theatron". This is where the audience sat to watch the performance. The Greek theaters were very dependent on the topography. Over time the Greek theater became an integral part of the public life of the community, often forming the main public center of the village or town.

In the Roman era, the location of the theater was no longer necessarily restricted or limited by topography. The Romans, with their knowledge of arcuation and the use of cement in construction, were able to create large structures for theater performances. The Roman theater compared to the Greek theatre, involved an increased slope of the audience area. They also created what became known as the "theater district", a clustering of several theaters in close proximity to each other. Examples of such districts can be found in the archeological ruins of Pompeii and in present day Rome. By the end of the Roman period, the seating area had gradually increased to completely surround the stage area. However, the theater still remained uncovered and exposed to the elements.

The Middle Ages resulted in a decline in all areas related to the arts. Thus little change in theater architecture took place. Although the Renaissance brought renewed interest in the arts, the passion for theater was on a lesser scale. During this time, the theater shifted from a permanent centrally located

site to the outskirts of urban centers, or to sites wherever an audience could gather

Gradually, by the seventeenth and eighteenth centuries, an interest in theater generated by the ruling classes allowed theater architecture to gain public importance. Throughout Europe, and particularly in France and England, large scale construction and reconstruction of cities was taking place. Theaters created a focal point for cities and once again became important city landmarks.

With the increased interest in theater came new styles and forms of performance. One new type of performance utilized music as an important element of performance. This of course was opera. With the emergence of the new forms of performance, the articulation of space became one of the most important considerations for theater architects and designers of the day. Likewise, during this time, interest in the theater created by the nobility and ruling class resulted in the exterior and interiors of the theaters becoming embellished with decoration. The nobility provided funding to create structures which in many cases were built in close proximity to their residences.

By the nineteenth century, the opera house had found its way to North America. It become a focal point in many of the large urban centers of the

United States. Patrons of the arts in various cities attempted to outdo one another in the grandness of the theater structures. Theaters were extensively embellished, many having attached gardens. They were located in central areas near parks, dining establishments and other attractions. This trend of locating theaters near other establishments continued into the 20th century. Similarly, according to Marvin Carlson, "a common development of the twentieth century theater is the creation of an arts complex, where theater, dance, opera, and perhaps other arts are clustered together to form a supermonument"[1]. The trend of creating theater complexes housing many different activities occurred in many large cites including the design and layout of the 1964 Lincoln Center for the Performing Arts in New York City. In some cases the building of new theater complexes sparked renewal of areas which had been gradually declining into abandoned offices and warehouses.

INTERIOR SPACE AND LAYOUT OF THEATERS

Although site and location play a vital role in the success of theater, the interior space and stage layout are also of vital importance. Many factors contribute to the design of theater space. A characteristic carried over from Greek theater was the use of a separate space for the actors and the audience. This was done for practical as well as artistic reasons. Very few architectural structures resemble a similar division of space. The church comes the closest in

this regard. According to Eric Bently, "The church or temple throughout history... combines the meeting of two separate groups, the secular group and that of the high being or the sacred celebrated.[2]". However, over time, the division of two separate spaces in theater has been gradually broken down. The groups have become one, sharing and residing in the same space, with no clear boundaries such as was found in the early theaters of Greece.

In the early fifth century B.C., the open Greek theater began to use a skene or stage which was shaped like a house. It was erected on the side of the orchestra or stage area across from the audience. It provided a hidden place or "world" separating the actor's world from the world of the audience. Over time, the skene took on appearances depicting settings of the play such as a palace, a cave, or a hut.

During the middle ages a drape at the back of the stage area became a change room or what eventually became known as the "backstage area". The audience remained separated from the acting area. The acting area did not become elevated until later. These simple physical barriers separated the two spaces by function and remained an important part of the theater.

From a very early time there has always been a social division of space within the theater based on the hierarchy of power and tradition. For example, the location and size of the private dressing room has been a symbol of power

and status since early in the nineteenth century. George Kernodle stated that "leading actors have been given private dressing rooms or even small suites near the stage, while performers of lower status move down the spatial scale into small shared spaces.".[3]

The tradition of space and location of the audience area has also reflected one's status in society. Generally, audience space reflected the separation of the population by their class or standing in society. Greek theater, was perhaps the most democratic in its audience seating, allowing for seating on a first come basis. The only exception to this was public officials and priests being given stone seats having their names engraved on them. Foreigners and late-comers were allocated the outer edges of the circle. Renaissance theaters tended to follow the Greek model by providing a democratic seating arrangement for the general population, although the nobility in this case were given better seats for viewing.

Another device which helped separate the audience and the performers was the invention and use of perspective in the painted backdrops. Perspective increased the sense of reality by distorting the lines of images and creating the illusion of increased depth. This created a radical change in the audience seating. The use of perspective meant that seats farther away from the actors were the best, whereas in Greek theater the front seats were considered the

best. Gradually, the stage area was further defined by the use of an elevated stage which increased the distance between the actor and audience. However, very little change occurred to the surrounding architecture of the theater.

It was in the mid-seventeenth century, that architects began to experiment with an elaborate structural barrier known as the proscenium; that is the part of the stage in front of a curtain drawn across an arch. In 1667, the Richelieu theater in France was the first theater to introduce the use of a proscenium and an arch. The proscenium and arch became a way to increase the division of space between the audience and the performers. The two structures effectively framed the actions of the performers but caused the theater to become less intimate and resulted in the audience becoming less a part of the performance.

At the same time, changes were occurring in seating and the lobby or entrance areas of theaters. By the seventeenth century, the hierarchical system of seating had become well established. Royalty was given elevated seats. Seating for the general public, however was at the rear or sides of the theater where the view was less than satisfactory. Gradually, private boxes and balconies were created for the aristocracy. Ironically, the boxes had a poor view of the performance but served the purpose of reinforcing the social status of the

patron. Many of the boxes were highly decorated and in fact, some were linked to the residence of the box holder by means of a tunnel.

At the beginning of the nineteenth century, many opera houses and theaters, such as the Old Academy of Music in New York City, had been built based on the European model. The aristocracy of New York had a monopoly on the boxes at the Old Academy, handing down the ownership from generation to generation. During the latter part of the nineteenth century, the emerging middle class demanded access to the performing arts, with more democratic seating arrangements. This was reflected in the newly built Metropolitan Opera House in New York where most private boxes were eliminated and replaced by several tiers of balconies.

However, segregation of the public at the theater entrance and in the lobby area continued for some time after the seating had become more socially homogeneous. Early in the seventeenth century, the aristocracy came and went through private entrances. The general public came and went through an entrance directly into the seating area. The luxury of a foyer was reserved for use of the aristocracy. There were very few spaces where patrons of different social standing could congregate. During the nineteenth century, opera brought about the move to a more homogeneous use of public space. The lobbies became areas of gathering and socializing. Many opera houses delegated more space to

grand staircases, galleries and vestibules than for the combined seating and stage areas. Staircases were used as a dramatic design element and served the purpose of connecting several floors. The staircase in the Paris Opera House contained a grand staircase with two landings surrounded by three balconies overlooking the main foyer and lobby. The different social classes mingled in the various lobbies before, and after performances and during the intermissions.

New York Broadway theaters of the twentieth century, created different entrances and lobbies from those found in European theaters. Most Broadway theaters have limited lobby space with the street becoming an extension of the main lobby. The decorating and ornamentation is very subdued. Lobbies had to be smaller because of the high cost for street frontage in the Times Square area of New York. Also there was no need to separate the social classes. Experimentation in the form of new theatre scripts and stage layouts geared toward the non aristocrat theater patron, made the American theater district very different from that of European theater districts.

MODERN STAGE CONFIGURATIONS

Modern theater has used many of the design elements of the past in its search for the best way to create communication between the audience and the performer. This is seen in the evolution of the basic theater designs of the twentieth century.

Perhaps the most popular and versatile stage design is the proscenium and the arch with the audience surrounding the stage on three sides. This design can be used for musicals, opera (requiring lavish sets and costumes), traditional theater and even lectures. It is used extensively in educational facilities. The arch helps to create a frame for the scene. A large, high, space in the backstage and wing areas is required to accommodate flats (i.e. two dimensional painted scenery). The lighting system involves pipes which are suspended horizontally to the stage area and can be raised or lowered. This is a less intimate, but popular form of stage design.

To create an increased sense of intimacy between the actor and audience many theaters adopted a thrust proscenium stage layout. This peninsula elevated the actors and created a portion of the stage which protruded into the audience. It was popular in theaters which saw the need to create musicals of an intimate nature, where the audience feels a part of the action taking place on stage. The trend toward increased intimacy continued to influence the stage layout. Sets as a result became simplified. Some theaters eliminated the proscenium and the arch in favor of a modified thrust layout. This created a different form of theater known as "minimalism". The lack of physical barriers and reduced backstage area allowed directors, scenographers and actors to

create a more interactive approach to theater with greater emphasis on intimacy.

The theater-in-the-round is an open stage concept with the audience completely surrounding the stage area. Although this form helped to break down the physical barriers created over the centuries, this theater layout created problems and challenges in the use of props, sets, lighting and movement of the actors because they could no longer be hidden. Many directors had the actors enter from behind or even amongst the audience. The theater-in-the-round challenged playwrights to create new texts for this intimate form of theater.

As the twenty-first century approaches, theaters have become more and more experimental. Buildings, originally built for other purposes than theater productions, are being reconstructed to provide innovative homes for the theater arts. A flexible stage is installed in many theaters so that a wider variety of theater productions can be produced. Computer assisted technology has permitted a vast array of audio and visual effects. Some theaters are already experimenting with the use of holograms and computer generated images to provide a theater experience devoid of human actors and concrete objects.

DESIGN PROPOSAL FOR THE CALDWELL THEATER COMPLEX

LOCATION AND SITE ANALYSIS

The principles of interior design and the knowledge of theater have been applied to the design of the Caldwell Theater Complex. The site chosen for the Caldwell Theater Complex is in an old, historical area of the City of Rochester, New York known as the Brown's Race District. It is located adjacent to High Falls on the Genesee River in downtown Rochester.

In the early days of Rochester's development, the area consisted of mills where most of the wheat and other grains grown in Western New York were brought to be ground into flour. In the years between 1834 and 1880, as wheat production in the area declined, the flour mills were replaced by cotton and woollen mills, box and carpet factories, and gas and electric utilities.

The Brown's Race District continued to be an active center of business in the City of Rochester up to the end of the Second World War. However, beginning in the late forties, many of the industries relocated from downtown Rochester to its suburbs, or completely closed. The Brown's Race District gradually declined. Recently, the City of Rochester declared the Brown's Race District a historical site. It has invested large sums of money to promote the rebirth and revitalization of this old historic area of the city, with a variety of

commercial and residential buildings in the area being declared historical sites. The long term goal of Rochester for the redevelopment of the area is to create public markets, a visitors' center, historic displays and an outdoor viewing area. The recovery plan involves landscape architecture and the clean up of High Falls and the raceways. Many of the buildings have already been renovated including a convention center and the Trip Hammer Restaurant, named after the waterwheel which was once used in the early days. High Falls creates a dramatic backdrop to the historic area.

Since Brown's Race has been designated a historic site, certain design and building requirements have been placed on approximately twenty buildings. The outside of the buildings must remain the same and any new construction must fit in with the existing architecture. Building materials used must continue to convey the impression of earlier industrial and commercial activity in the area and the design elements must evoke a sense of the past. It is hoped that these restrictions will help visitors recall the vibrant past of this bygone Rochester area.

Much of the reconstruction in the area has already been completed including: a conference center, a covered parking garage, a restaurant, and shops overlooking the falls. A modern theater complex would therefore add to

the revitalization of the historic area by providing a place for entertainment. From a vantage point in front of the renovated Trip Hammer Restaurant, a suitable building for a theater complex is located in the district. It is on the corner of Commercial and Mills Streets (see west elevation...). The building is rectangular in shape except for the east side which curves along a raceway. This is the Caldwell building.

PROPERTY RESEARCH

To determine if the Caldwell Building was a suitable theater site it was necessary to research its history by reviewing the property records at the Rochester City Hall. The building, as I discovered, is currently owned by Concorde Properties Limited. Mr. Neil Tucker, the chairperson of Concorde Properties, and custodian of their archives, agreed to help in the research of this historic building. Mr. Tucker had been following the rebirth of the Brown's Race District and had accumulated a wealth of knowledge regarding the area. He provided several blue prints of the site and previous construction drawings. Mr. Tucker was also able to give insight into the use and renovations to the building going back thirty-five years. A tour of the interior of the building was arranged in order to examine the feasibility of utilizing the space as a theater.

From the information provided by Mr. Tucker and the records at City Hall, it was discovered that the building had originally been constructed in

1880. The building has been used for a variety of functions, originally as a power house for the Rochester Railway Company's electric trolley system. Later it was used to house and maintain the increasing number of trolleys and buses needed for the city's transportation system. This continued up until 1963. After 1963, it was used in a variety of commercial capacities including a factory and storage depot. At present it is used to store bank documents and papers.

The building covers a total of 12,000 square feet. The main building material is clay fired brick combined with a stone masonry foundation. The roof is a combination of two separate roof construction systems, consisting of wood arches and trusses. The arcuation of the main roof created a floor space void of any columns or posts and a span of over one hundred feet with a forty foot clearance to the rafters. The absence of columns and the height of the roof provides an excellent theater setting.

NEEDS ANALYSIS

Before beginning the design process, a plan had to be devised which would outline the requirements of a theater complex based on the needs of the audience or theater patrons, the performers, and the support staff. To gain an understanding of the needs of these theater groups, advice from theater professionals was sought. Mr. Allan Watts, is a professor and scenographer at

the University of Guelph, Ontario, Canada. He has, over the past twenty-five years, designed theater productions for several theater companies including Canada's Stratford and Shaw festivals at Stratford and Niagara-On-The-Lake, respectively. Professor Watts provided insight into the special requirements for the performers and support staff. He outlined the problems faced by several theater companies in Canada.

A visit was also made to the newly renovated Geva Theater in Rochester. and an interview was conducted with Mr. Howard Millman, the Artistic Director of the Geva. Several performances were also attended. The Geva theatre had done an excellent job in renovating an old building and creating a thrust style stage layout. However, the theatre company lacked a scene shop on premise and remained isolated in it's downdown location, void of other supporting attractions such as shops and a scenic setting similar to which the Brown's Race District could provide.

STAGE AND SEATING

After gathering and compiling data for various square footage requirements, it became clear that the space requirements were linked to the number of seats and the stage design.

The ideal location for a stage in the Caldwell Building was the west side. This area was especially suited for a stage because it contained no posts or

columns. The height from the floor to the rafters was approximately forty feet. This provides an excellent throw distance for lighting fixtures and equipment. The stage would become the focus for the theme and design of the rest of the building. Before selecting one specific type of stage layout, experimentation on paper with various layouts, including flexible stages providing both a thrust and an arena setup and theater-in-the-round, was performed. These were traditional stage layouts. However, it was felt that the design had to be unique and provide intimacy between the performers and the audience. In a copy of Stage Craft, an article contained information about an environmental theater in England which made use of a rotating audience area. Thus the solution from the experimentation was a rotating audience area and a round stage layout. This design creates intimacy while at the same time making it possible to incorporate new technology into theater productions.

The stage of the Caldwell Theater Complex consists of a round, raked, stage which can be viewed by the audience from all sides (see figure 11). One end of the stage extends out from the round creating a thrust space. The audience is located in the middle of the circle with seating on a turntable-like platform. This platform rotates as a unit depending on the action of the play, eliminating the problem of long scene changes. The audience enters the viewing area by a ramp located in the center of the seating platform. The acting area is

enclosed by a fourteen foot flexible wall which can be covered by scrim or opaque fabric should projection devices be used. This wall can also be altered to provide openings for actors to enter and exit the stage area. Two main entrances for actors are located on either side of the thrust or extended portion at one end of the stage (see Figure 1). This stage and seating design can provide modern drama productions using different forms of multimedia such as slides, films etc.

The design, however, also created a challenge in finding a means for the audience to enter and leave the seating area while at the same time meeting all the requirements of the Americans With Disabilities Act (ADA). The audience area can accommodate 207 people including 4 places for handicapped persons in wheelchairs. To eliminate poor sight lines, a slight rake in the audience seating area was created with the seats in each row being offset. The area below the audience seating was used as a means of egress through two major exits, one on each side of the seating platform.

The problem of the changing elevation from surface grade was overcome by implementing an extensive arrangement of ramps beginning in the lobby and theater entrance. The main entrance and exit into the seating area consists of a large ramp measuring eight feet wide divided by handrails. The ramps, which began as a functional solution to the problem of increased elevation because of mechanical structures under the stage became a design element tying the

various rooms and areas together and eliminating the need for stairs. The introduction of a curved ramp to overcome the long distances required by the ADA ratio of twelve feet of ramp for every one foot of rise, broke from the traditional application of straight alternating ramps. A curved ramp starting at the entrance leads the theater goers into a large oval lobby echoing the shape of the stage area. To gain the five foot rise required to reach the rotating audience platform, a sixty-five foot ramp was needed. To help break up the spaces, several ramps spread throughout the complex create a variety of levels and contrasts. The ramps also make all areas wheelchair accessible.

LOBBY

The lobby as a central space serves several functions. It is large enough to accommodate theatergoers prior to the show and during intermissions. At the same time it provides easy access to the auditorium and serves as an area for socializing during intermission time. It is centrally located to allow patrons access to several services such as coat check, box office, restrooms, bar, cafe and bookshop. The lobby design creates a place of transition where the audience is removed from the everyday public world and introduced to the atmosphere of a theater performance.

CAFE

The cafe provides seating for sixty guests and is designed so that it can be open when the theater is closed. Once again, a ramp is used to connect the cafe which is on the surface grade to the lobby, which is above surface grade. The east brick wall is built with a slight curve to echo the raceway outside the building that rushes to the falls. The use of a curved ramp is very suited to the interior space of the cafe (see figure 10). A cappuccino dessert counter and bar are curved and located in each corner of the cafe to facilitate fast service during intermission times. Booths create privacy for larger groups. The aim is to create a place to socialize in a relaxed manner.

The historic qualities of the building are emphasized by using the original cobble stone floor wherever possible and other materials used at the turn of the century which create a rustic, bright space. Wood tables and chairs bring additional warmth to the space.

FURNISHINGS

The furnishings throughout the cafe and lobby are an important element of the design. Couchs encircle and surround the lobby, filling small niches and spaces which otherwise would have been unused (see figure 13). The theme of curved couchs is carried into the cafe in the design of booths, bar and dessert counter. Included in the design proposal is a model of the chair that can be

produced in a limited mass production run. It is a lowback, armchair made from cherry wood and accented with aluminum caps on each leg. The design of the chair took place over many months and involved consultation on types of construction and design options with Mr. William Keyser, professor of wood furniture design and construction at RIT. The chair is specifically designed to meet the size preference of ninety percent of the general population based on ergonomic scales for similar styles of chairs. The curve is once again an intrinsic element of the design. "S" curves are combined with horizontal and vertical straight lines (see figure 14). It is covered with a rough, abstract tapestry of greens, blues and salmon to emphasize the rich, natural cherry wood. The metal caps echo the metal used on wall coverings behind the bar and on the bar counters. Colors from the chair, floor and the brick are used throughout the cafe and lobby.

OTHER FEATURES

Different levels of soffits are found throughout the public area of the building. By using hard-edged lines, a sense of depth and contrast is created. French double doors lead from the cafe to a deck located on the east side of the building. This deck extends over the raceway offering a place for theater goers to gather during the warmer months of the year. These French doors also act as exits in the event of a fire or emergency.

In the north west corner, off the cafe, is a small bookshop which can be reached through matching French double doors. Like the cafe, the bookshop can remain open when the theater is not in use.

RESTROOMS

The restrooms are located on the main floor adjacent to the lobby, cafe and auditorium. They are situated so that they can be used when the cafe is open for business but when no performances are taking place at the theater. Ten water closets are contained in the womens' restroom while five water closets and five urinals are located in the mens' restroom. The layout of each restroom provides an ADA sized stall, with all fixtures meeting ADA requirements including a five foot turning radius for wheelchairs. To provide visual privacy, the doors into the restrooms are blocked by partitions. A seating area is provided in the women's restroom. Outside the washrooms recessed in the wall is a water fountain. The restrooms are the last public space allocated on the main floor. Directly behind the restrooms are the costume shop and a storage area for the cafe. These are separated from the public area by doors and an access corridor.

COSTUME SHOP

Costumes are made, fitted, and maintained in the costume shop located in the area behind the restrooms. The area provides sufficient square footage to

accommodate several large tables for patterns, sewing machines, a change room and a laundry. A concern expressed by Professor Watts regarding the design of many theaters is the limited space available for the proper storage of costumes and the accessories. Storage space, for storage of costumes and props is located under the costume shop. The storage area is accessed by stairs located in the costume shop and extends under the lobby. Because the costume shop is elevated to the height of 6' above surface grade there is enough height to store a variety of sized costumes.

SECOND FLOOR DESIGN

Space is needed for theater support services and administrative functions. The Caldwell Building presently does not have a basement or a second floor. However, the average height of thirty-five feet from the floor to the ceiling gives the opportunity to add a second floor above the lobby, cafe, restrooms and costume shop. This second floor is an excellent location for the theater's administration offices and a rehearsal hall.

ADMINISTRATIVE OFFICES

A general open-office area provides space for the General Manager, the Production Manager, and the Artistic Director. A conference room for meetings

and two separate, wheelchair accessible, restrooms are also provided. The area is accessed by an elevator located near the front foyer. (see Figure 3).

LIGHTING AND SOUND BOOTH

The lighting and sound booth is located centrally above the main stage so that it has an unobstructed view of the entire stage area and is hidden from the audience. A small office attached to the booth provides storage for cables, lighting and sound equipment and access to the lighting grid located above the stage. This large metal grid consists of two foot square openings spanning the entire stage area. The ideal grid covers an area thirty to forty percent beyond the limits of the stage area, out of visual sight lines, and is high enough not to interfere with any sets. It also allows the lights to be positioned at an angle of forty-five to sixty degrees to control shadows and create depth. Other types of lighting devices, such as suspended horizontal pipes, work well for more traditional stage designs but are not possible in an open or round stage design. The grid allows the opportunity to include a centralized area over center stage for the placement of several projection devices used to illuminate the scrim surrounding the stage from a three hundred and sixty degree vantage point. (see Figure 2) However, this grid is not flexible, as the lights cannot be raised or lowered. The lighting grid remains exposed to the audience.

REHEARSAL HALL

A rehearsal hall is located on the newly constructed second floor. The hall is designed to be multifunctional; used for workshops, smaller productions and special events held by the theater company. The hall provides space for pre-show warm-ups and rehearsals while the main stage is being used for set construction. To meet rehearsal requirements the hall's square footage must be approximately the same as that of the main stage. The hall's location in the southeastern corner of the Caldwell Building provides natural light through an existing clerestory located in the ceiling. The high ceiling helps to create a quality of sound similar to the main stage.

BASEMENT DESIGN

On the west side of the building is found the scenery shop, dressing rooms and storage rooms. These facilities are in a basement created by excavation of the area where the stage is located. Materials for set construction and newly constructed sets can be easily moved onto the stage area through a trap door or a freight elevator. The trap doors with stairs allow actors to enter the stage from either the right or left side of the stage. An entrance to outside for receiving materials also provides a back stage entrance for actors arriving for performances (see figure 5).

SCENE SHOP

The location of the scene shop under the stage prevents set construction noise from interfering with the cafe and administrative offices located on the other side of the building. The scene shop requires a high ceiling in order to accommodate the large sets and pieces of lumber. A separate room is created for painting, including the addition of a special cabinet for storage of flammable materials. The shop requires enough space for several large power tools including a table saw, band saws, radial arm saw, lathe and storage for hand tools and materials.

DRESSING ROOMS

The dressing rooms, unlike those found at the turn of the twentieth century where separate rooms were provided for the lead actor(s), are democratic in concept. One dressing room is available for each gender with seating and makeup mirrors for ten actors. A restroom with a private shower stall, which is ADA compliant, is found in each dressing room . All of the rooms in the basement have access to the freight elevator plus the main elevator and are conveniently located near a staircase.

SUMMARY

The proposed Caldwell Theater Complex provides a theater experience for patrons, performers, and support staff that is intimate, and at the same time through the use of design principles such as space planning, ergonomics, and aesthetics provide for special needs of all those involved in the theater production.

This theater complex, like the early Greek theater, has a round stage design, democratic seating, minimal sets and is located in central part of the city providing under the same roof, dining and a book shop. The Caldwell Theater Complex can play a vital part of the rebirth and revitalization of the Brown's Race District.

ENDNOTES

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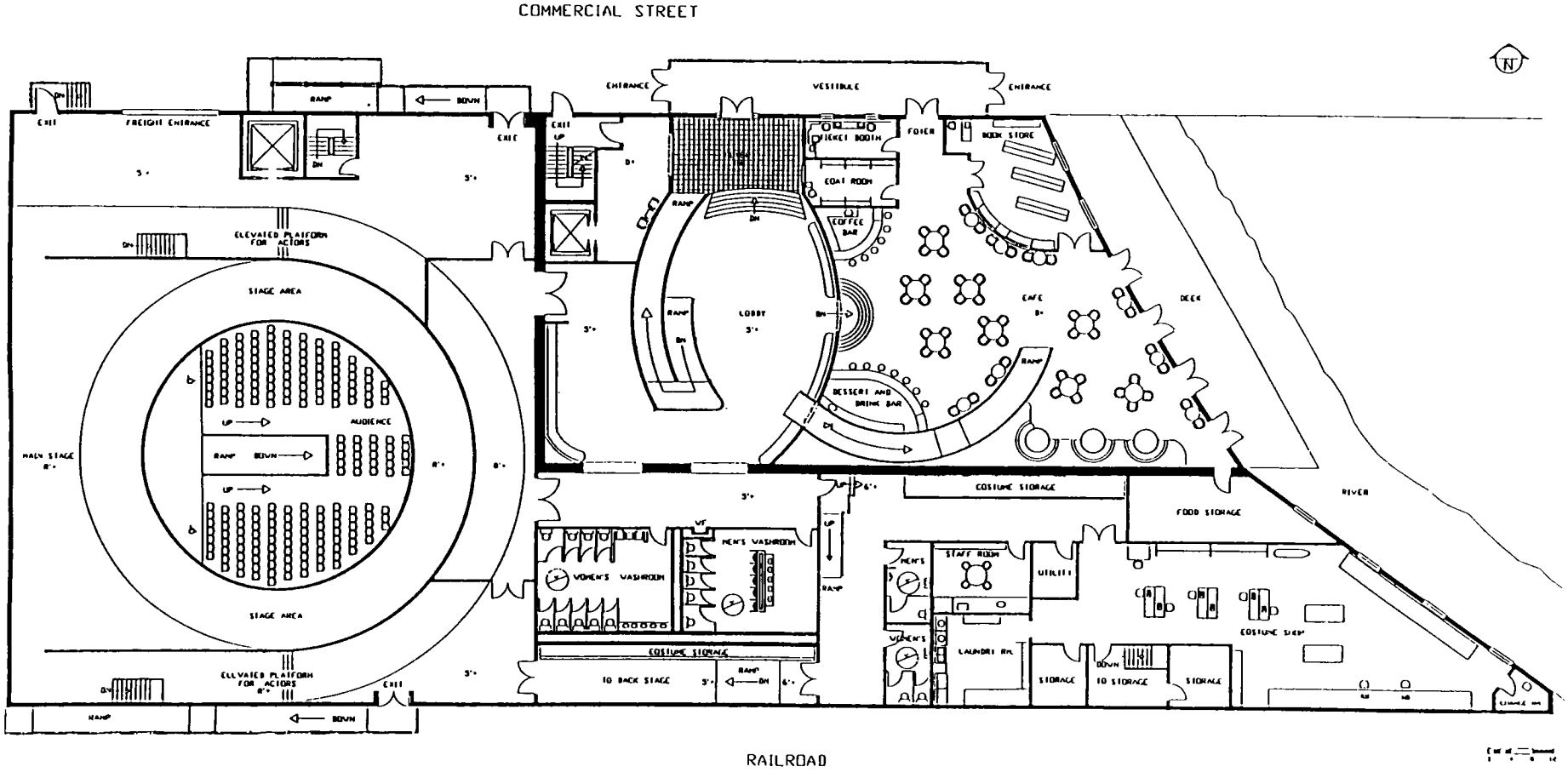

Figure 1; Floorplan of Caldwell Theater Complex
First Floor

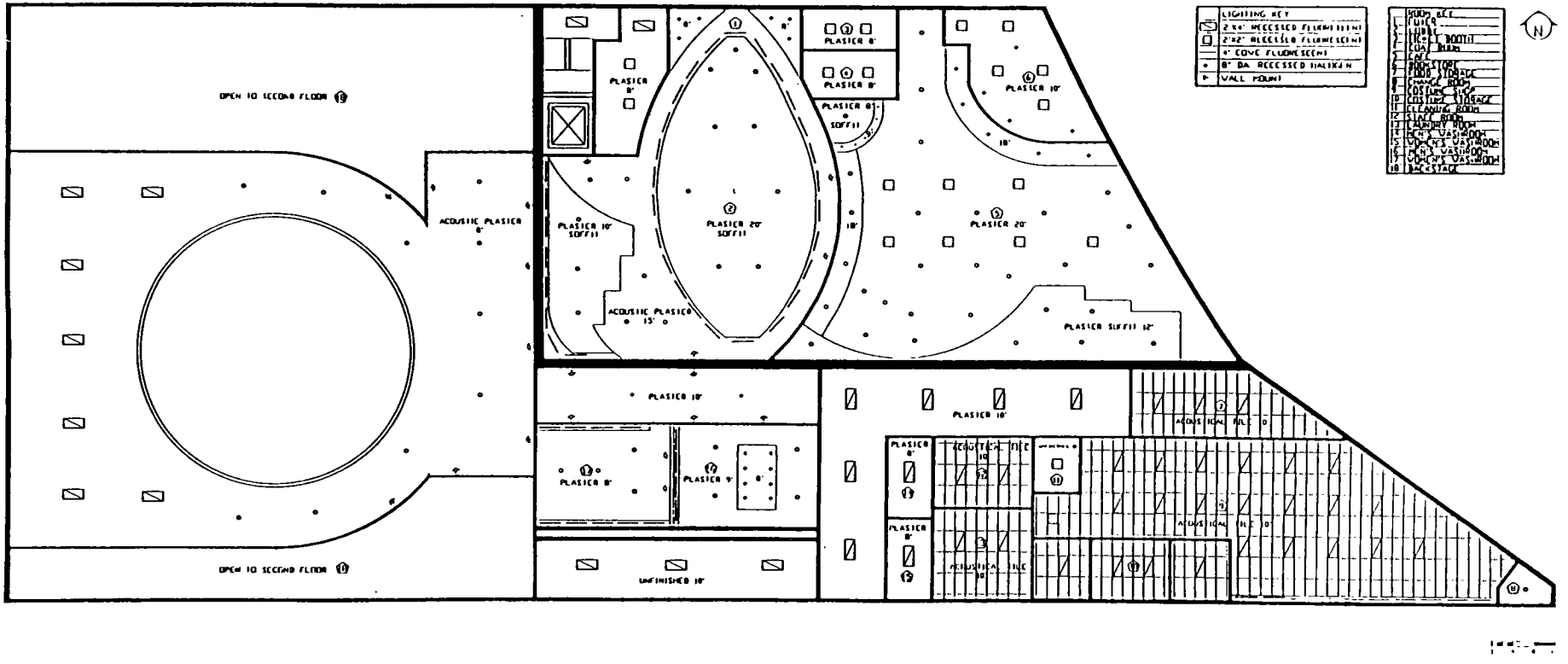

Figure 2; Reflected Ceiling Plan of Caldwell Theater Complex
First Floor

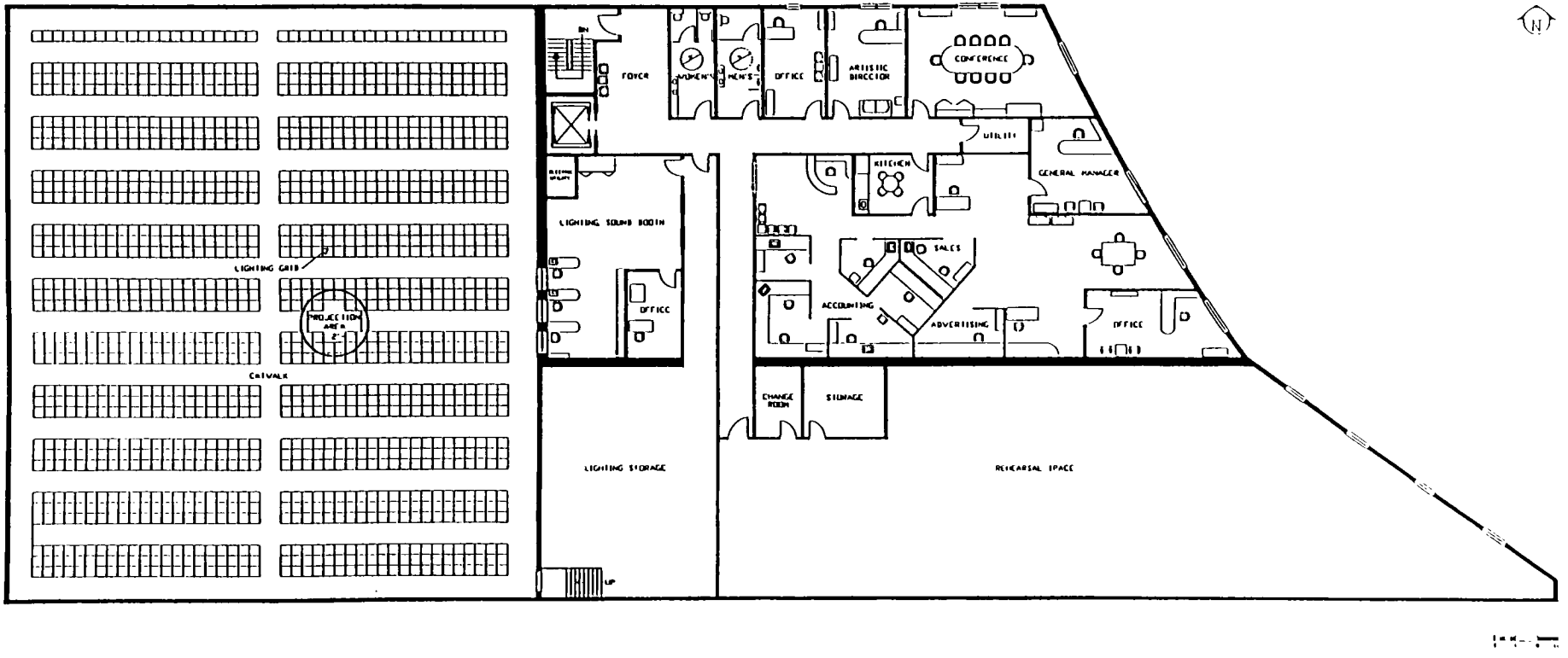

Figure 3; Floorplan of Caldwell Theatre Complex
Second Floor

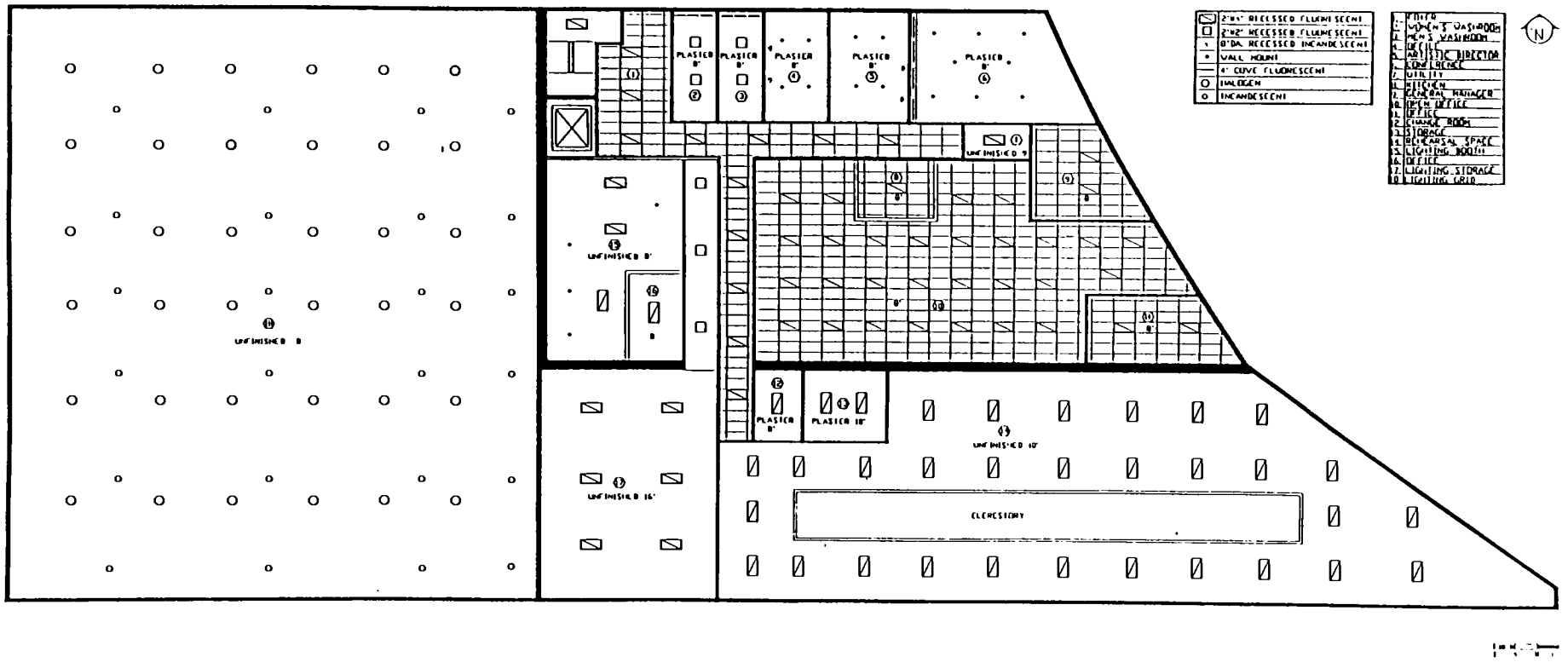

Figure 4; Refelected Ceiling Plan of Caldwell Theater Complex
Second Floor

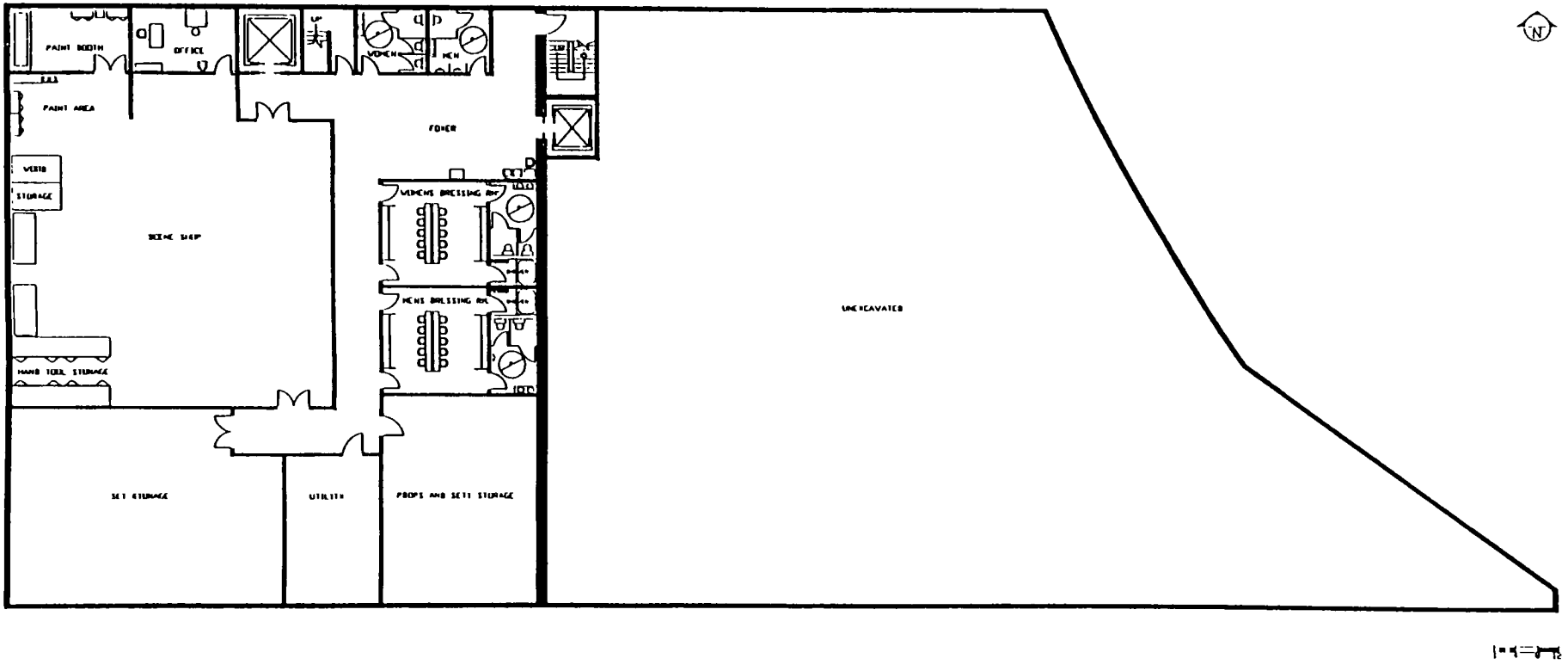

Figure 5; Floorplan of Caldwell Theater Complex Basement

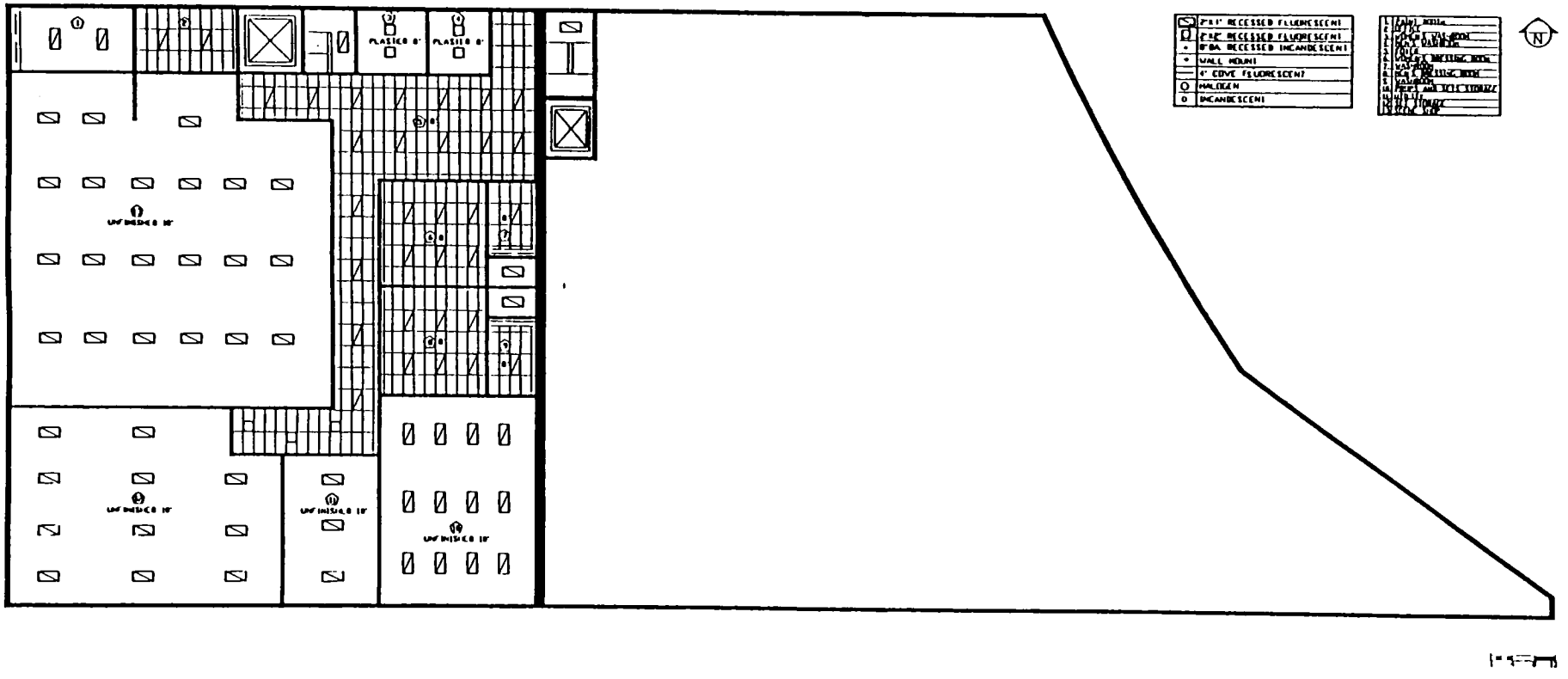

Figure 6; Reflected Ceiling Plan of Caldwell Theater Complex Basement

West Elevation of Caldwell Theater Complex

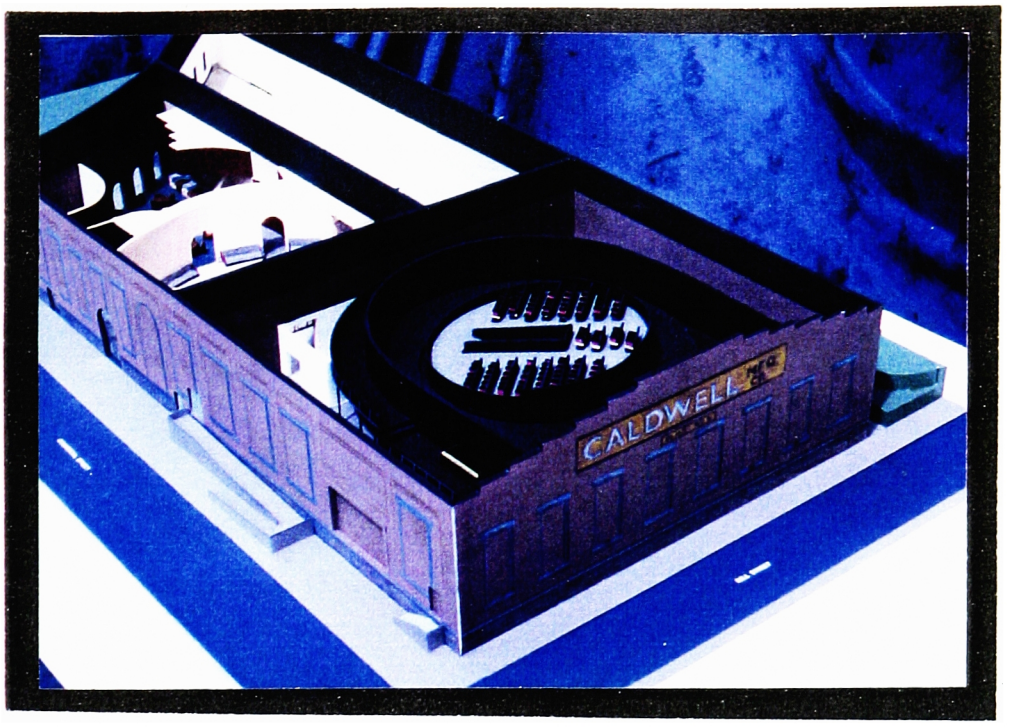

Figure 9; Detail of West Elevation of Scaled Model

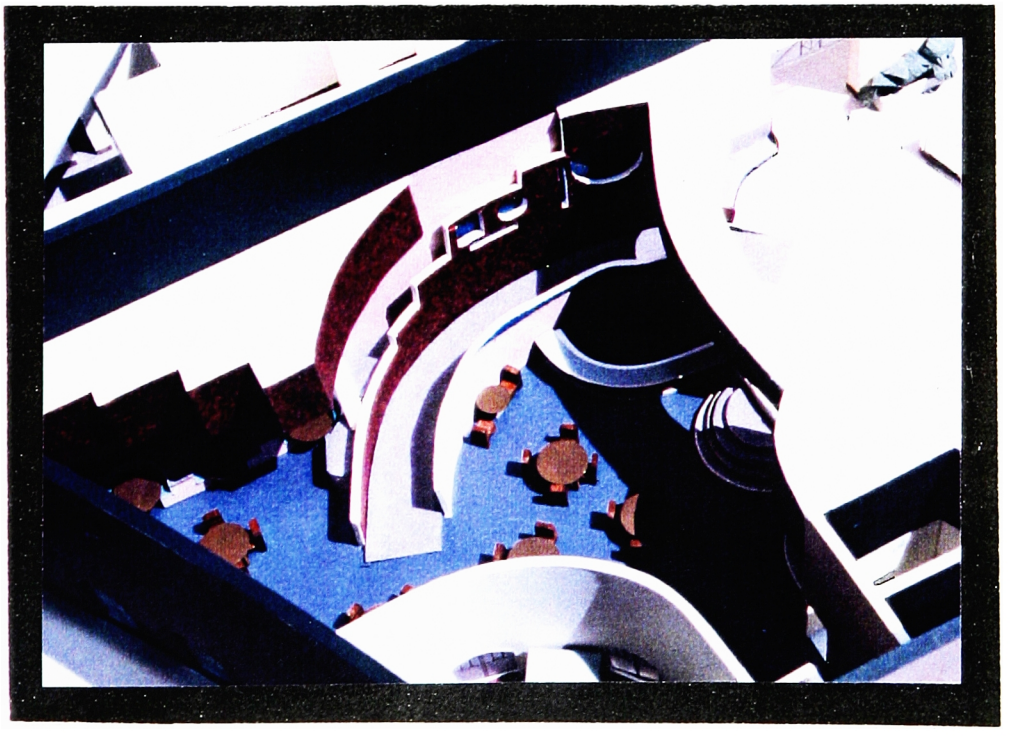

Figure 10; Detail of Cafe Area of Scaled Model

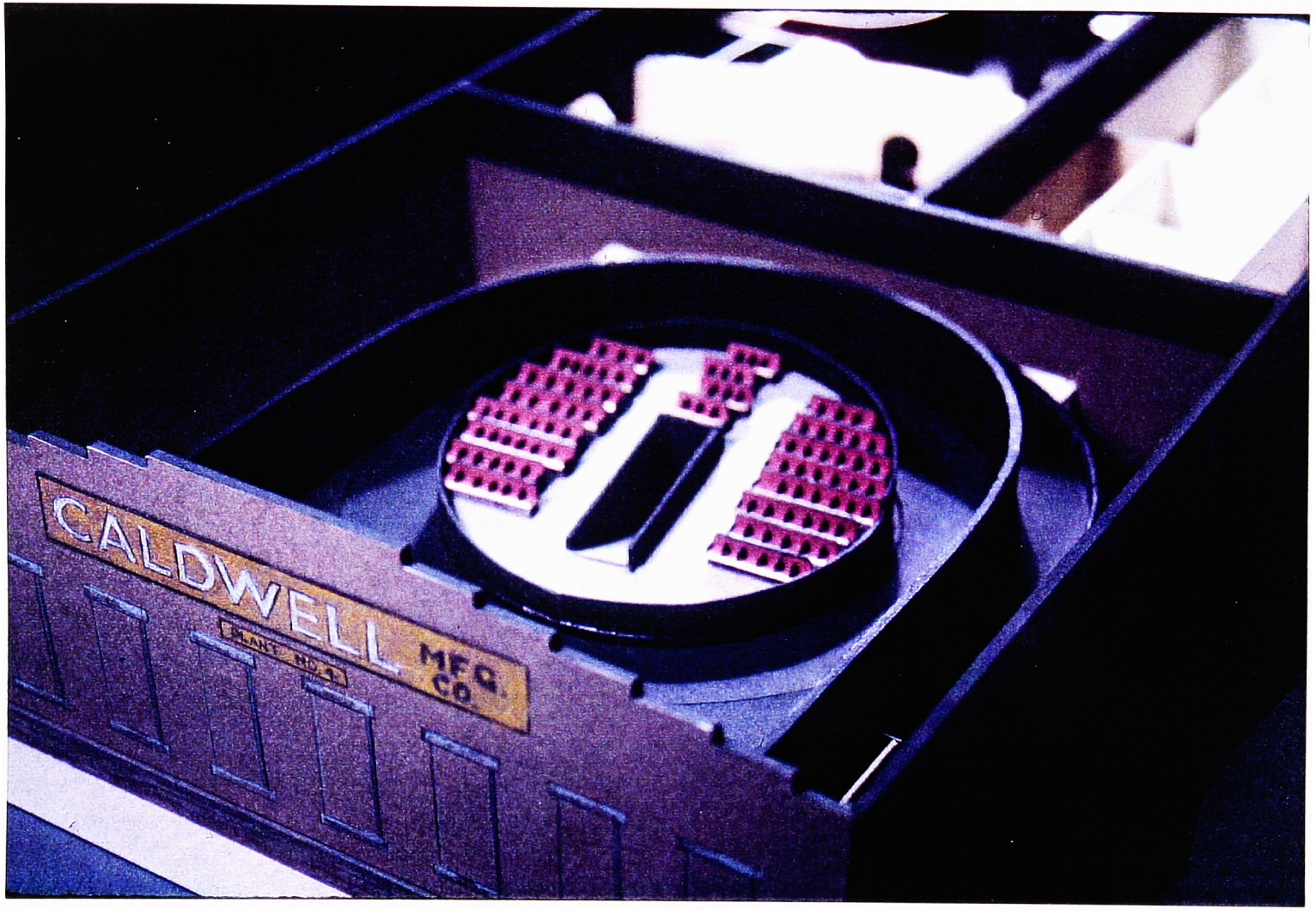

Figure 11; Detail of Stage area in Scaled Model

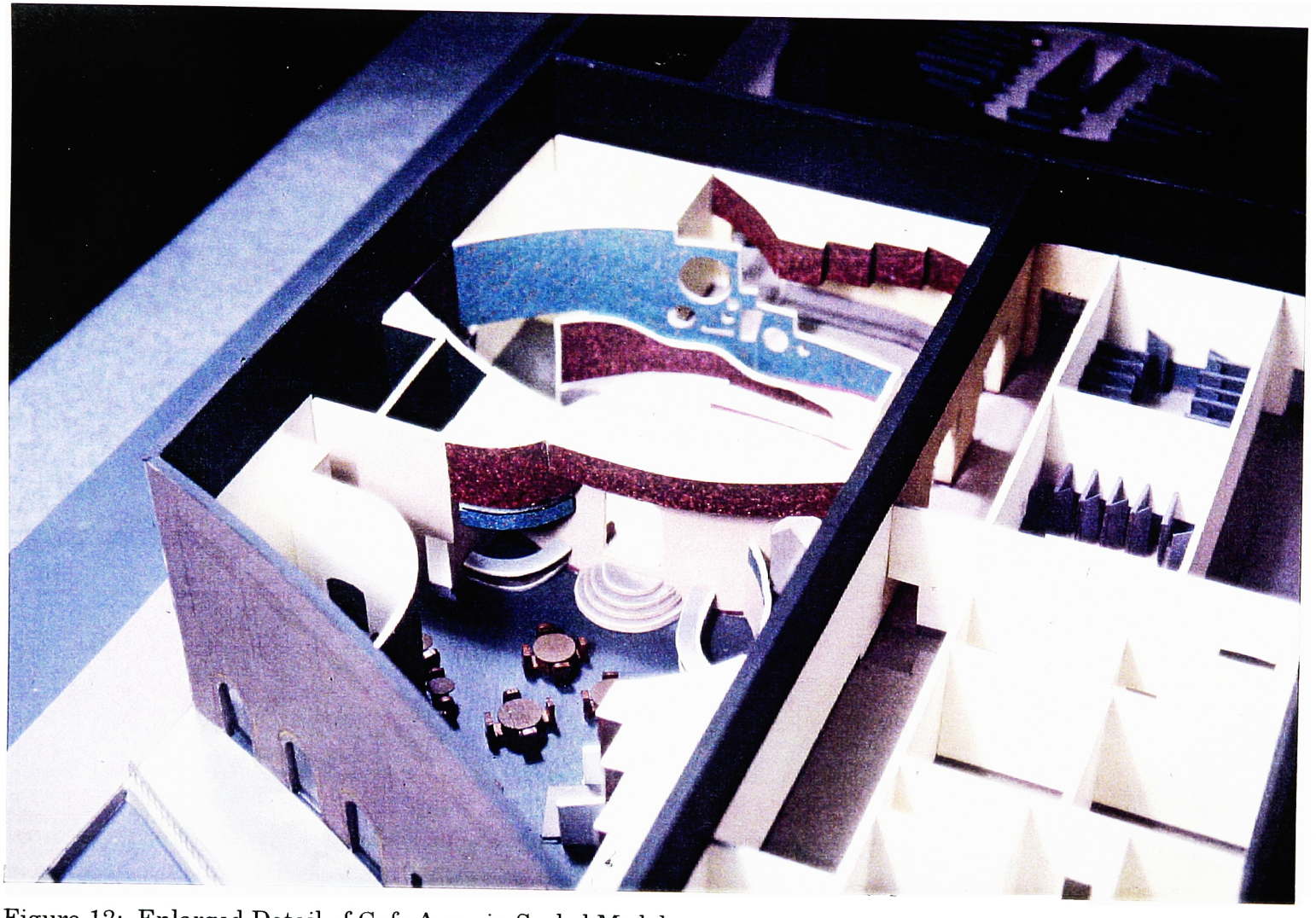

Figure 12; Enlarged Detail of Cafe Area, in Scaled Model.

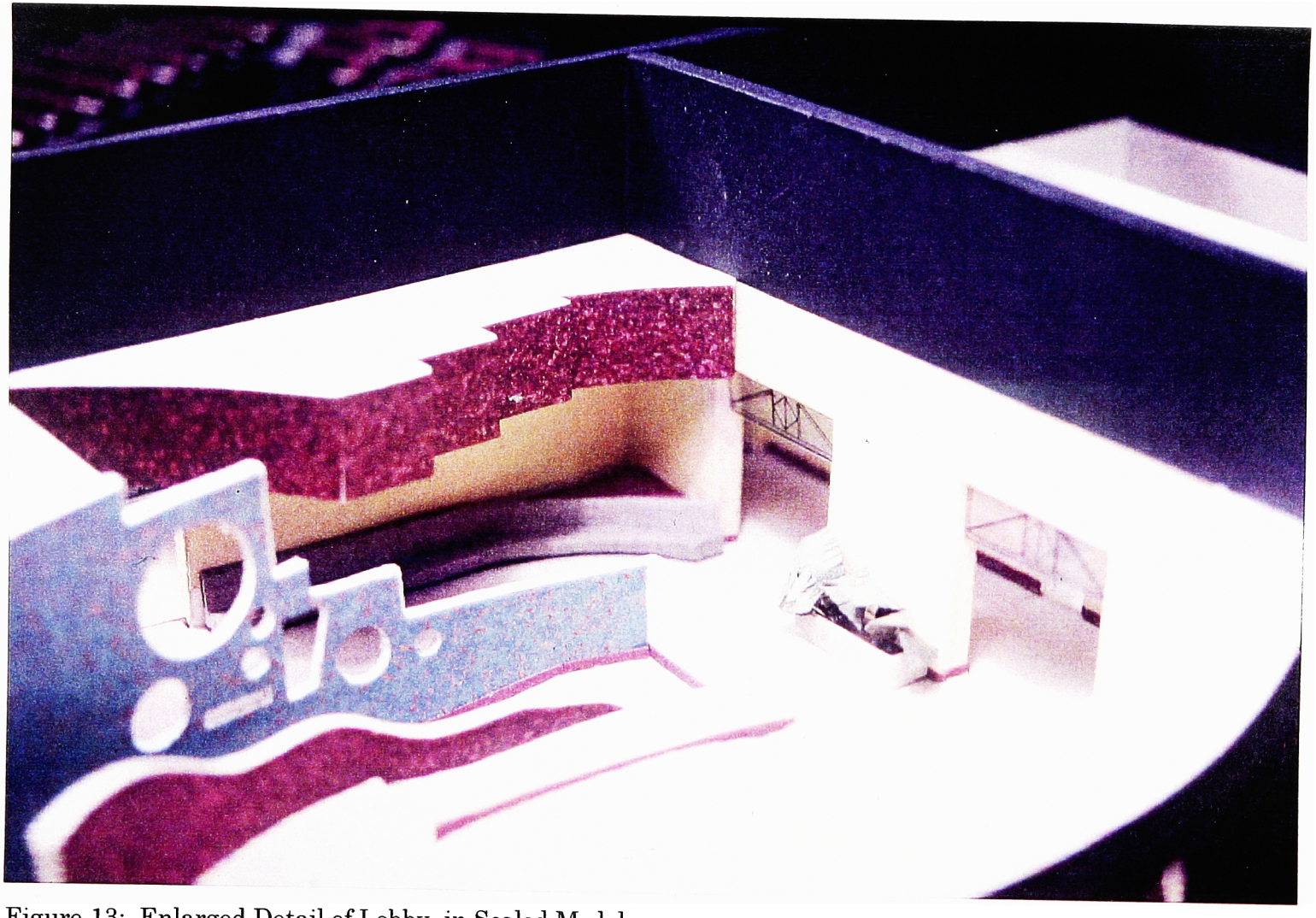

Figure 13; Enlarged Detail of Lobby, in Scaled Model.

Figure 14; Low Back Cafe Chair
Cherry and aluminum.