THE MENTOR

ARCHITECTURAL STUDY OF A MUNICIPAL AUDITORIUM IN BEIRUT

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ARCHITECTURAL STUDY OF A MUNICIPAL AUDITORIUM IN BEIRUT

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A C K N O W L E D G E M E N T

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THE MENTOR

A MUNICIPAL AUDITORIUM IN BEIRUT

INTRODUCTION

The city of Beirut is fairly rich with motion picture houses, and the cinema apparantly constitutes a major entertainment for the citizens. However, when it comes to instructive entertainments other than the motion picture, such as a pageant, an opera, a legitimate drama, or a concert, these same houses in Beirut are in most cases inadequate to accomodate for the complexities involved in the above mentioned productions. Cinema Empire has only 625 seats in the orchestra and 610 seats in the two balconies; Cinema Rivoli has about 1800 seats in both orchestra and balcony, but the backstage is hardly adequate for a play with a cast of as little as 20 actors; Cinema Dunia practically has no possibilities for performances other than the motion picture; and, the same holds true for most of the other cinema-houses in Beirut.

Constantly growing intelectual standard in Beirut warrants the erection of a well-designed, multi-purpose public auditoriom. Such an auditorium must be so designed as:

a. to give comfort to the audience without sacrificing operatiog efficiency.

b. they must be suited to more than one type of production in order that they may be paying installments.

c. they must be located in a more or less quiet quarter of the city, away from the hustle and bustle of ordinary every day life, unlike the present motion picture houses jammed at the crowdy center down town.

It is with these considerations that the Mentor Auditorium is planned. The site selected is to the West of the Public Gardens at Sanaya. The lot is made up of three separately owned properties and is surrounded by Venezuella street to the East, Chaldeans Street to the West, and Khalil Pasha Street to the South. On the north it is bounded by a property. The lot has the dimensions shown in Fig. 1.

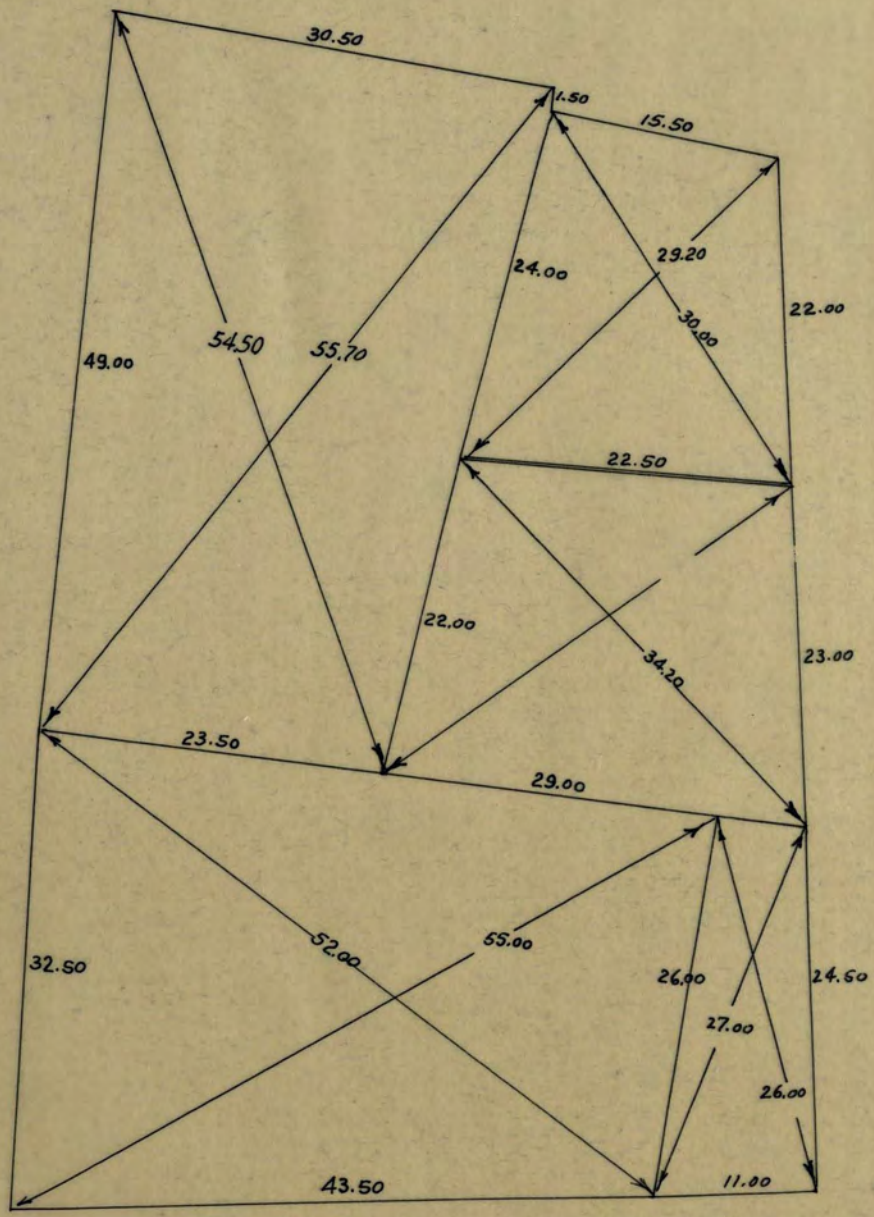


Fig. 1. Dimensions of the lot

I. THE THEATER STRUCTURE

The Theater is modern in the sense that it is true to its function. Simplicity, as taken to be the keynote of modernism, is the dominating feature in the structural study of the building.

Structurally the building is divisible into three main masses:

1. The Stage Block - Where the play is produced.
2. The Auditorium Block - To accomodate the audience.
3. The Front House Block - Serving as an entrance and exit to the Auditorium.

Each of these will be taken up separately and study with respect to the various activities they have to accommodate.

II THE STAGE BLOCK

It is in this block that a play is produced. Essentially the stage is made up of two parts:

A. THE ACTING AREA - Where the performance takes place and the audience sees. The width of the proscenium is made 13.00 meters. An average depth of 6.00 meters to the rear of the room is necessary for acting and an additional 6.00 meters is provided for halls, gardens, etc. that enter in performances, thus totalling the depth to 12.00 meters. A 1.80 meter passage is provided for actors to go from one side of the stage to the other. The total stage space is completely open and uninterrupted by columns. No projections from the walls are allowed to present smooth wall surface.

The Proscenium performs the two-fold function of consealing the stage and the acting area from the audience, and it attracts the attention of the audience toward the stage.

The Orchestra Pit is an essential component to musical productions, where the same conductor directs both the orchestr and the singers on the stage. The orchestra pit may be mounted on an elevator to give a vareable level.

B. THE WORKING AREA - It is in this area that all

necessary preparations are made for the production of a show. In the working area are included:

The Carpentry Shop. The stage is directly connected to the workshop area by an opening which is fitted with a fire resisting door. The Carpentry shop is next to the stage and has an opening to the main road for scenery construction.

Dressing Rooms.- for the actors. Minimum 4.50 sq. meters per person. A star's dressing room is also provided. The equipment used in dressing rooms consist mainly of clothes and costume hangers 60 cms. per person, 60 cms. of shoe rack per person, make up table 75 cms. wide per person, 45 cms. deep, and 45 cms. wide mirror per person. Mirrors will also be used in corridors on way to stage. No doors on cabinets; curtains only. With these considerations 38 actors are provided for in the proposed theater.

Toilets - Their use is concentrated into short periods of time. One toilet seat is provided for per six persons.

Showers - are provided in each dressing room, one for six actors.

Green Room - About 35.00 sq. met. in area. This is the actors' social room. A kitchenette is adjoined to the Green Room.

Waiting Space on Stage - Where actors can hear the show.

Quick Change Room - immediately adjoining the stage.

A Lounge For Male Help - These gentlemen operate the ropes for raising or lowering the sceneries.

General Storage Room - to store furniture.

Stage Directors' Room - on the same side of the stage as the fly gallery.

In the second floor the following rooms are provided in addition to the ones already mentioned:

Sewing Room - Where dresses are made, ironed, and tried.

First Aid Room - for accidents.

Rehearsal Room - 80.00 sq. met.

Stage Managers' Office - with a library and a work-table.

Dress Storage Room

Elevated Paint-room - overlooking carpentry shop.

Music Room - under the stage, where the musical instruments are stored.

Electric Room - under the stage.

"One extremely important point, which cannot be too strongly stressed when dealing with this particular portion of the theatre, is the fact that the stage, the side bays, the workshops, the storage space and the loading

dock platform must all have floors ar the same level, and it is absolutely essential that there should be no ramps, steps or differences of level of any sort or form between these various sections. It is only on a completely level floor throughout that the necessary stage movements can be carried out with the speed and complete fluidity necessary for the easy and competent running of any show."[1]

C. THE FLYING SPACE - "Flying space above the stage is as important a feature of our contemporary theater as it was in those of the past, and it may well be that the theater of the future will require a similar flying system. The architect who does not allow for this possibility in the design of a new theater is unnecessarily restricting both the use of the stage space and of the scenic effects which can be devised on it. The provision of some kind of system for hanging or flying scenery above the stage is essential in any theater."[2]

The required height for the flying space is found by assumptions that a backcloth as high as 15.00 meters must be lifted up and completely hidden from the audience. To allow for this the gridiron must be at least twice as high as the prosceniom, namely 30.00 meters, abome which there must be enough space for a man to walk above the gridiron. A further consideration is raised by the British Local Construction Code requirement that there shall be sufficient height above the stage ";..to

allow of the safety curtain being raised above the top of the proscenium opening in one piece and of all scenes being so raised without rolling."

The Fly Gallery - where the ropemen stand, is placed 9.00 meters above the stage floor and is designed to carry a very heavy loading. Sceneries are hung by ropes and flown. These ropes can be either of the counterweight type or the pulley type. Once the weight of the scenery to be flown has been counterweighted, it can be raised into the air by the action of one man pulling on a working line.

A Catwalk Type Bridge - is also to be built, placed directly upstage of the front curtain and about 35 to 40 cms. wide to allow for the passage of a man from one side to the other, to adjust lights during performances of the play.

The proscenium opening is separated from the house by a fire curtain which according to National Board of Fire Insurance Underwriters must be of flexible asbestos, asbestos cloth on rigid frame, or sheet steel curtain on rigid frame. The curtain must be counterweighted with just less than enough weight to balance it, and capable to be released by the melting of fusible lines placed in three or more strategic positions along its length. Fire curtains must be both automatic in operation and mannually

operated. Excerpt from the Building Code of the City of New York (1938) Article 13, Sub-article 5, Paragraph C26-725.0:

"a. The prosceniom opening shall be provided with a curtain of incombustible material constructed on a rigid frame approved by the superintendent, having a lap of two feet at the top and eighteen inches at each side, sliding at each side in steel or iron grooves, which shall have a minimum depth of twelve inches. The curtain shall be fastened to the proscenium wall and at its lowest position shall rest on masonry at least twelve inches thick extending from the foundation to the curtain, or upon a strip of linoleum, cork or rubber composition directly affixed to such masonry. The footlights shall be placed at least two feet away from the curtain line. The curtain shall be raised only at the commencement of each performance and lowered at the close and shall be operated by approved machinery.

"b. Satisfactory proof must be submitted and filed with the application that the curtain is so constructed and mounted as to prevent passage of fire, to permit the passage of only a minor amount of smoke, and to show no glow on the auditorium side, when exposed to a temperature rising to seventeen hundred degrees Fahrenheit in thirty minutes."

III. THE AUDITORIUM BLOCK

A. DETERMINATION OF SECTION AND FLOOR SLOPE--Referring to Fig. 2, a point (I) is struck which will serve as stage floor level and datum. We assume that the auditorium floor is level with the stage at a point 85 feet or 24.40 met. in front of the curtain line. Facial expressions are destorted at a distance of 75 feet. The apron (2) is drawn and the pit, from measurements marked off on the plan. Then we establish the proscenium (3) and the line of the curtain (4). The height of the screen is made 30 ft. or 9.I5 met. to retain the proper proportion with the 54 ft. I6.50 met. width we show on the plan. Apoint (5) 4feet (I20 met.) is set off below the level of the stage as the floor level of the front of the orchestra. From the plan the standing space and the line of rear seat is drawn.

At this latter point which represents the position of standing persons, we set up a point of sight 5ft. (I.50 met.) above the floor line at that point (6), the average height of the standing man. We draw a line between this point (6) and the top of the screen (4). The balcony must not project downward below this line at any point. On the curtain line extended, mark a point 7feet 6 inches (2.30 met) below the level of the stage (7). Draw a line at a

distance about 70 feet in front of the curtain line; mark the point (8) one foot above the intersection of this line with the line already drawn connecting point (4) and (6).

Connect points (7) and (8) and continue for a distance of 8 rows of seats and a cross over (to point 10 on diagram). Then from another point 10 feet below the stage level on the curtain line, or two feet six inches (0.70 met.) below point (7), strike off point (9). Connect this point (9) with point(10) and continue to the rear of the house. All the steppings of the balcony must touch this line (8-10-11).

It is necessary that the occupants of all seats have an epual view of the stage over the heads of the people sitting in the next row but one in front.

We can safely begin by assuming that the floor of the stage will intersect the auditorium floor at a point 80 feet (24.40 met.) in front of the curtain line. Through this point - the intersection of the stage level with the orchestra floor - draw a vertical line and on this line mark a point 3 feet 8 inches (11.1 cms.) above the floor as the height of a person seated. Four inches above this point is allowed for clearance for those seated in the seats two rows back. From this same vertical line both to forward and backward, set up other verticals 5 feet 4 in-

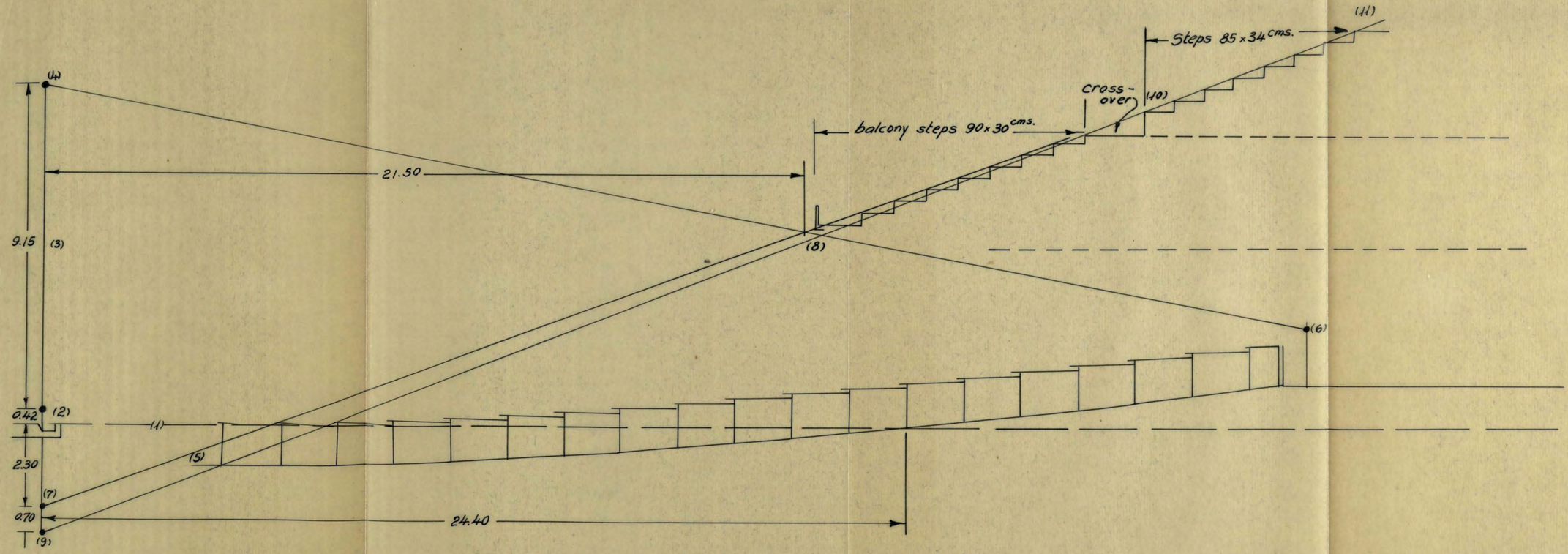


Fig. 2. Determination of Longitudinal Section & Slope

ches (162 cms.) apart. Now on the curtain line, establish a point 16 inches (42 cms.) above the stage. Connect this point with the point on the first vertical 3 feet 8 inches above the floor until it cuts the other vertical 5feet 4 inches in front. On this line drop down four inches to the eye level and repeat the operation. Then work backwards four inches above the original 3 feet 8 inches. After these lines of vision are complete, the line of the floor may be obtained by drawing a line parallel to the eye points, at a distance 3 feet 8inches below them.

In the balcony we will assume that the desired point of equal vision is the intersection of the curtain line with the stage and proceed as we did for the orchestra floor.

B. SHAPE OF THE AUDITORIUM - There are many formulas giving relations between depth of house, width of house and width of screen or proscenium. Some of these relations are - Optimum depth equals four times screen width; depth equals 1.25 to 2.35 times house width when house width is 2.5 to 3.5 times screen width. Average house width being 28.00 met. and average house depth being 38.00 it is seen that depth equals 1.36 times house width.

The shape of the auditorium is limited by the main factor that every member of the audience shall be able to see and hear the whole of the acting area. Consequently, to provide good sight-lines the seating is arranged on a slight curve and staggered. This kind of seating culminates into a fan-shaped auditorium which is also desirable accustically as will be shown later.

Burris-Meyer gives the following recommendations for the plan and section of an auditorium for the patron to see satisfactorily: (Refer to figures 3 and 4.)

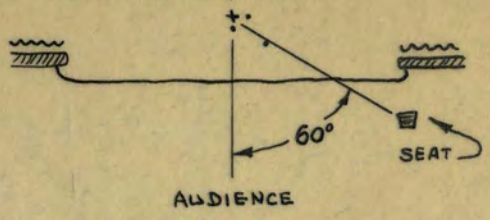
1. The horizontal angle of polychromatic vision (no eye movement) is approximately 40°.

2. The horizontal angle to the center line at which objects onstage, upstage of the curtain line, cease to bear the intended relationship to other objects onstage and to the background is approximately 60°.

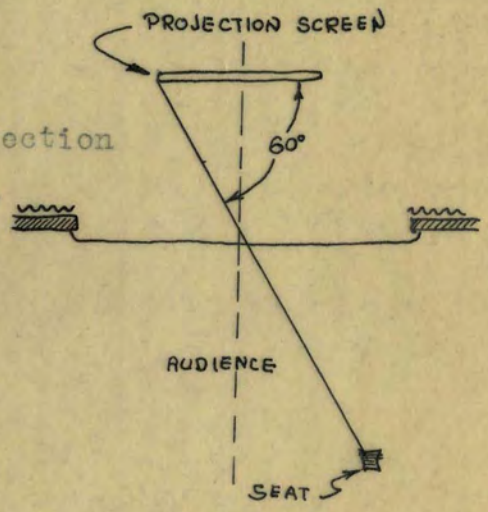
3. The horizontal angle to the projection sheet at at which distortion on the screen becomes substantially intolerable is 60° measured to the far side of the projected image.

4. Judged by the audience's ability to recognize shapes, and confirmed by free audience choice of seats, the following is the order of desirability of locations:

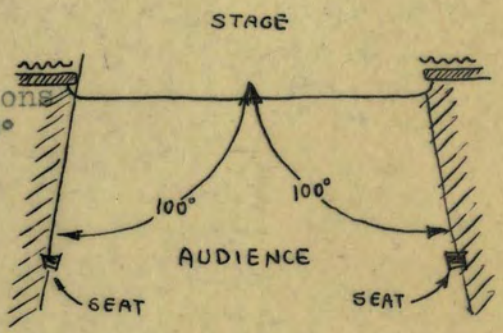
The horizontal angle to the center line at which objects onstage, upstage of the curtain line, ceast to bear the intended relationship to other objects onstage and to the backbround is approximately 60°.



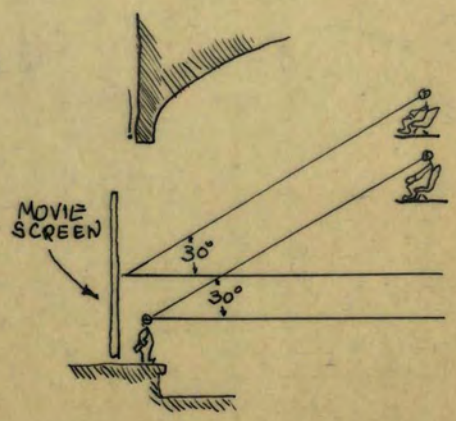
The horizontal angle to the projection sheet at which distortion on the screen becomes substantially intolerable is 60° measured to the far side of the projected image.



Audiences will not chose locations beyond a line approximately 100° to the curtain at the side of the proscenium.



The vertical angle beyond which ability to recognize standard shapes falls off very rapidly is approximately 30°.



Diagrams from Burris-Meyer: THEATERS AND AUDITORIUMS.

Fig. 3

a - front center (except when the screen is close to the front row);

b - middle center;

c - middle side;

d - front side;

e - rear center;

f - rear side.

5. Audiences will not choose locations beyond a line approximately 100° to the curtain at the side of the proscenium.

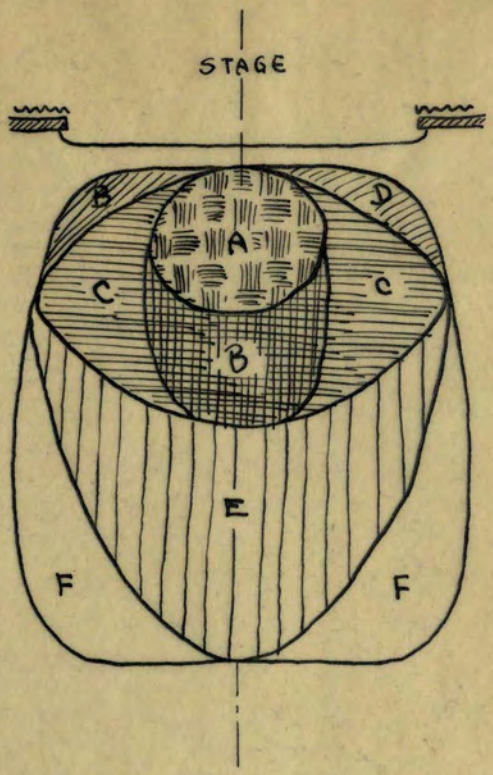
6. The vertical angle beyond which ability to recognize standard shapes falls off very rapidly is approximately 30°.

7. The recommended maximum angle of motion picture projection to the horizontal is 12°.

In the orchestra the seats are placed at 80 cms. back to back and spaced 58 cms. apart. The balcony steppings are made 30 cms. high and 90 cms. deep below the cross over and 34 cms. high and 85 cms. deep above the cross-over.

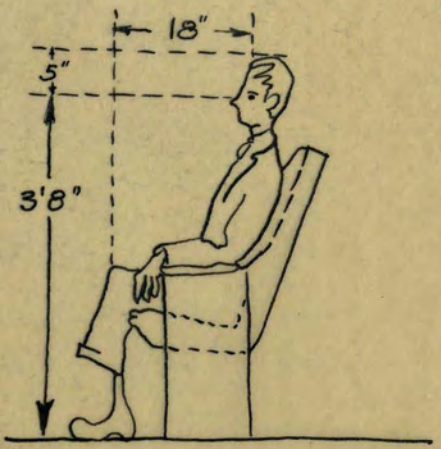
According to the above principles in planning the seats, the seating capacity in the orchestra is 1414 and the balcony is 674, totalling to 2088 seats in all.

According th the American Code Requirements the number of seats between aisles is limited to 14 and the num-



Judged by the audience's ability to recognize shapes and confirmed by free audience choice of seats, the following is the order of desirability of locations:

a-front center(except when the screen is close to the front row);
b-middle center;
c-middle side;
d-front side;
e- rear center;
f-rear side



Basic dimensions for plotting floor slope.

Diagrams from Burris-Meyer:
THEATER AND AUDITORIUMS

Fig. 4

ber of seats between and aisle and a wall to 7. Aisle width of 1.60 and 1.40 net are found as comfortable for easy evacuation of the theater, calculated on a rate of flow basis. The aisles are narrower near the orchestra pit and wider at the entrance end. A 1.40 met. high wall behind the hind seats is constructed to prevent draft and accomodate standing patrons.

Building Codes require entrance-exit doors on the street at the rate of approximately one five-foot (1.50 met.) door to every 300 persons of audience. Having 1414seats in the orchestra 1414/300 x 1.50 = 7.05 met. of doors are required. The provided door openings are 8.60 mets.

Cars at all times are expected to circulate around the building, and, to avoid noise of traffic, the walls of the auditorium will be in double wall construction - outside wall being 20 cms., then 10 cms. empty space, and an inside wall of 15 cms.

C. THE AUDITORIUM DECORATION - The theater building is dedicated primarily to the presentation of vocal, optic and mechanical art; and art is best comprehended in its simplest and nude state.

In the auditorium fo the theater meaningless applied ornaments and costly trimmings are eliminated. Since

decoration is decidedly psychological and colors are of enormous psychological value, decorative effects will largely be the result of lighting. A warm tone will be attained inside the auditorium by applying combenations of orange, gold, reds, and tans to the wall surfaces. Straw color will be applied to light. Thus, a warm golden amber light will be lighting the auditorium where people have to spend much time at ease and comfort. To keep the audience cheerful, the unnerving effect of blues and grays will be avoided.

The primary aim of decoration in the theater is to further the feeling of intimacy. Large areas of plain wall surfaces are not encourage, as they give a feeling of space and distance disproportionate to the areas which they actually occupy.

The following entities are considered under the interior treatment of the auditorium:

1. The space under the balcony - must be treated as a separate interior by itself, because the man sitting under the balcony soffit is not conscious of the main ceiling. Therefore, a more intimate treatment is required here.

2. The space above the balcony - Here the people have the best general view and, therefore, care is taken to let them have a well-balanced view of the main ceiling, the side walls and the proscenium.

3. The space in front of the balcony - Here the audience sees the least, mainly the two sides of the proscenium and the ceiling above the proscenium.

Both ornamental and coustical results are gained by applying orange-tan fibrous plaster in five bands on the walls on both sides of the proscenium and extending up to 15 meters along the wall. The heights of these bands which are separated by a 10 cm. beam vary from 1.00 meter at the top to 1.80 at the bottom. Then three golden beams spring out from this fibrous plastered portion, the middle one extending as far as the edge of the balcony seats. The orange-tan fibrous plaster will be applied in strokes of verticals and horizontals in each band.

"There are doubtless moments when the architect needs the painter and the sculptor, just as he may have need for other gandicrafts. But when an architect uses all the resources of his art, the building itself becomes a multi-dimensional image, a whole series of pictures that change in quality with every hour of the day, and with every change in position by the observer. So too, it becomes a highly complex plastic form, whose interior space and openings are as significant as the mass, since in a building the poosibility of movement through space provides the architect with resources that are not at the disposal of the sculptor. By his choice of materials and textures

and colors, by the contrasting play of light and shade. by the advance and recession of planes, by the clarification and organization of the plan in relation to the elevation, the architect produces a highly complex symbol of human purposes and values, emotions, feelings, and sentiments."[3]

D. AUDIENCE COMFORT - The auditorium will be air conditioned for successful operation of the theater. The air will be drawn out of the house through grills located under the seats to the plenum chamber. In this chamber, located above the projection room, the air is mixed with fresh air from outside the building. After the proper proportioning of humidity (40-45%) and cooling, that is, after the air is well conditioned (with as little as 20% fresh outside air to reestablish an adequate oxygen content) it will be forced into the house through gills located in the ceiling.

Special attention will be given to the air-conditioning of the stage so that actors can perform comfortably. Awater tank is provided atop the stage block.

E. AUDITORIUM ACOUSTICS - Theater acoustics is a highly specialized profession now and no attempt is made in this thesis to present the acoustics problems of the auditorium fully. However, the following suggerstions as given by experimentors on theater acoustics are fol-

lowed:

1. No segments of true circles must be used on wall surfaces as they create sources of sound foci and dead spots. See fig. 5.

2. Athree centered-arc will have a large central portion with a radius equal to more than twice the ceiling height and the smaller portions at either side will h have radii less than one half of the ceiling height. An elipse approximating such a profile will present a good section. See fig. 6.

3. Acoustical treatment is based entirely upon correcting the time of sound reverberation. Reverberation is defined as the prolongation of sound due to reflection of its elements. Should the period of reverberation be too prolonged, succeeding sounds will merge into inarticulate noises and more or less confusion will result depending upon the period of reverberation. The confusion is caused by an overlapping of sounds.

4. The usually accepted formula used to express the period of reverberation in terms of the properties of a room, is the formula developed by the late Wallace Sabine:

$$t = 0.05\ V/A$$

in which t is the time of reverberation in seconds (selected from the proper reververation chrt for the particular room in question); 0.05 is a constant value; V is the vo-

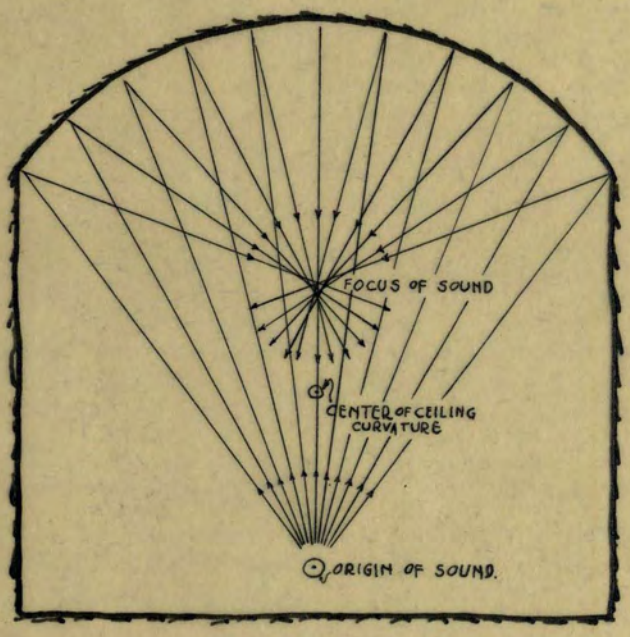


Fig. 5. Diagram of a simple cross section of a theater auditorium. The ceiling, a segment of a circle, having a radius which is more than one-half the ceiling height, causes the elements of sound to converge and form a focus of sound in the usual balcony region.

Diagram from Sexton, American Theaters of Today, Vol. II.

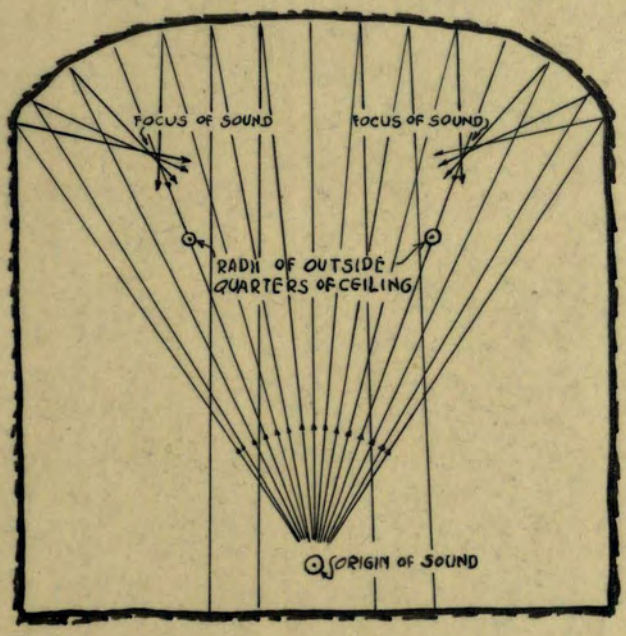


Fig. 6. Diagram of a simple cross section of a theater auditorium. The ceiling has the same height as the section shown in Fig. 5 and the side walls have the same vertical height as the first example. Unlike the ceiling of Fig. 5, the ceiling profile is formed from three-centered arc. The radius of the middle portion is more than twice the ceiling height and the radii of the portions at either side are equal and less than one-half the ceiling height. The diagram indicates small sound foci near the ceiling on either side. While this is not a perfect solution for changing the ceiling shown in Fig 5, it eliminates the trouble partially. A true elipse would disburse the sound foci more efficiently.

Diagram fom Sexton,
American Theaters of Today, Vol II.

lume of the room in cubic feet, (free air space); A is the total sound absorption value of all objects and materials in the room in terms of "coefficient units", a unit being the value of the amount of sound absorbed by one square foot of open window space. It has been determined by laboratory tests that the average absorption value of an adult person is given as 4.7 units and calculations of absorption value in a room are usually based upon one-third capacity audience minus the absorption value of the seats which it occupies. Acoustic materials which shave architectural value as well will be used away from the stage to reduce reverberation periods.

IV. THE FRONT HOUSE BLOCK

A. ARRIVING AT THE THEATRE - The tramway line being far from the site it is expected that patrons will come to the theater in one of the following means:

1. Private cars.
2. Service cars.
3. Walking.

Land around the site of the proposed auditorium being expensive and built, parking facilities (for 47 cars) for patrons arriving in private cars are provided under the building. The auditorium is elevated and supported on columns. These columns are made circular to provide for easy traffic. After parking their cars under the house, the patrons may climb the stairs connecting the foyer to the garage and enter into the house without being exposed to the outside.

For good traffic control cars will approach the building from the West, either enter the garage under the building or continue to the South, drop the patrons at the main entrance and leave from the East. The traffic flow is shown on the location map.

For pedestrians three entrances to the building are provided, one main entrance and two side entrances.

B. INSIDE THE DOORS - This Front House-Block is not essentially different from other building types and no special theatrical knowledge is required in its design such as the design of the auditorium.

Cleanliness, efficiency and enjoyment in the design of the entrance space. At the main entrance the pedestrian is involontarily invited into the building by the two inside stairs starting on the side walk which extends inside the main block and where posters are located. These stairs, with a rise of 16 cms. and a thread of 30 cms. lead into the foyer where the patron finds himself in a very intimate atmosphere of sitting places, posters, show windows and the ticket-booth. Lay windows of square panels create an atmosphere of gaiety letting the patron not feel condined in a well-decorated prison. The foyer area is planned to cause as little congestion as possible. Space is provided for patrons waiting for friends. Foyer area of one sq. ft. per seat is recommended. Having 1414 seats in the orchestra, 1414 sq. ft. (131.00 sq. Met.) of foyer area is required. Actually more than 250 sq. met. of area is provided. While patrons are leaving the theater after a show new comers may bebuying their tickets, so, the ticket boothis so located as to allow these new comers to enter the building from a secondary entrance, buytheir tickets and waite at the lounge, with no effort

during all this operation to oppose the tide. The same ticket booth will serve the patrons for tickets for either the orchestra or the balcony. After waiting for some time at the queue, if a patron can find no free seats in the orchestra he can buy one at the balcony without having to start at the tail of a new queue.

The floor surfaces of the foyer must be capable of standing a lot of traffic, must not hold standing water, must be easily cleaned and must be comfortable to stand on. Marble is a possible solution except that is is slippery. Terrazo tiles with colorful designs can be used particularly if covered by rubber or ordinary matting. Wall surfaces will be made of marble at least a shoulder height so that they may be cleaned easily. Doors in the foyer will be made silent and self-closing. Door panels in pairs of double doors will not be made more than 80 cms. for a single unit.

A suite of offices for the general manager of the theatre is provided at the Western end of the foyer. A secondary entrance connects the outside to this part of the foyer. The general manager residing in this office is respondible for running the business side of the theatre. A room is provided for the secretary of the manager. In this same room is also connected the telephone central of the whole building. A reception

room,lavatory and wahing facilities are available in this suite.

Three large door openings each 3.00 met. wide lead the patrons from the foyer into the lobby. Tickets will be checked at these entrances, after which the patrons may deposit their coats and hats at the check-rooms. A check room is located at the end of each lobby under the flight of stairs leading up to the mezzanine. The lobby width is 7.00 met. A large area of counter s space is provided in the check-rooms in each of which there will be two attendants for quick service. Two staircases each 3.50 met. wide lead the patrons to the mezzanine. A well in the mezzanine helps in extending the vertical space of the lobby, and creating an intimacy between the lobby and the mezzanine. Right across the well a check-room is provided for the balcony audience.

The mezzanine is the recreational center of the theatre. Here the patrons may lounge, have a drink, watch expositions, take a cup of tea or sanwiches at the bar. In many instances it is difficult for the average citizen to provide himself and his family with hot evening meal before going to the theatre. Late working hours and distances of homes from theatres may account for this difficulty. Lounge facilities, a good tea-room or cafetaria, space for exhibitions, are provided to

make theatre going an event. One must be able to go straight from his work to the theatre where he will meet his friends or relatives waiting for him in the lounge. They may have a good meal - made up of sandwiches - and until the play starts spen the time looking at exhibitions or, if the weather permits, sitting in comfortable chairs on the terraces overlooking the Public Gardens.

The lounge area can very well be used for balls and other social events. The liquor bar at one end and the soda fountain bar at the other are ideally located for a ball. Dinners and cocktails can be given in the Cafetaria which easily accomodates for 100 persons.

Ushers' Rooms both for female and male staff of the theatre are provided under the balcony seats. Here the staff can change their dresses, lounge, or have their meals. Lavatory and toilet accomodations are provided both for the ushers and the balcony patrons.

For summer use an open-air tea-terrace is planned with its preparation room and counter.

-END-

FOOTNOTES

1. Leacroft, Richard, CIVIC THEATRE DESIGN, p. 54.
2. Ebit, p. 56.
3. Mumford, Lewis, FUNCTION AND EXPRESSION IN AECHITECTURE, Architectural Record, Nov. 1951, p. 106.

BIBLIOGRAPHY

1. ARCHITECTURAL RECORD, NOV. 1951.

2. Leacroft Richard, CIVIC THEATRE DESIGN, Dennis Dobson Ltd., London, 1938.

3. Sexton, R.W., AMERICAN THEATRES OF TODAY, Vol. II, Architectural Book Publishing Co., Inc., New York, 1930.

4. Time Saver Standards, An Architectural Record Book, 1950 Edition.

5. Burris-Meyer H. & Cole, E.C., THEATRES AND AUDITORIUMS, Reinhold Publishing Corporation, 1949.