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OPERA OR NATIONAL THEATRE  
OF  
BEIRUT

Designed & drawn by  
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B.S.C.E

#### ACKNOWLEDGMENT

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G.J.R.

## INTRODUCTION.

The pursuit of pleasure under all its forms has ruled the fate of all people long before any embryo of civilization appeared on the earth. Though the desired aim is uniform and identical for all nations the means used to reach it and the conception of its realisation differed with the times and the places.

One of the surest method to measure the degree of what is conventionally known as civilization, is to examine and to measure relatively the refinement of the recreations co-veted by the different countries.

The abstract being universally recognized as a sign for a degree of progress, the imaginary and the fictitious will be adopted by a nation that the most severe critics will admit its having reached a quite satisfactory intellectual stage.

The Lebanon does not lack fiction or dreamers and the works of our poets and our poets and our prosaists Stuff up our libraries, but an agreeable way to live one's dream or rather one's favourite author's and this be done without the effort of reading it, will be to listen to vocalists sing them or actors recite them in an appropriated decoration which will take you, like an enchanter magician, to the country of your dreams, the country of your poets.

If we leave this and try to face the problem in a more realistic way,

the intelligent reader has already guessed what is most urgently needed in the Lebanon : an OPERA or NATIONAL THEATER.

The contradictions spirit on the watch will swoop down on my idea and destroy my still imaginary OPERA. He will have <sup>m</sup>ple excuses; one of them will be that the Lebanon has never had an OPERA before and the people were living all right without it.

To these conservatives there is only one answer : it is time for our country to shake itself from its long lethargy and to wake up to the present times and take advantage of its natural and especially cultural resources.

THE OPERA OR NATIONAL THEATER

of

B E I R U T

The choice of the problem was done in the idea of cooperation with the new artistic movement which owes its existence to the good will and understanding of the duty of citizens of some young men who form the flower of our intellectual youth. Mr. Alexis BOUTROS C.E. a pioneer in music, has created an artistic group which understands music and is trying to educate the people of Beirut; it is not true that every one is born with the capacity to judge music or art. As with every other capacity, even the greatest natural gift must be trained, and Mr. BOUTROS and his acolytes are putting sign posts to direct the Lebanese artistic taste.

Our government, help fully, has opened under its supervision a national conservatory depending of the ministry of public education where the talents of our youth can find a spring-board which may push them high enough if chance favours them.

Many academies of acting were formed in Beirut and more than once our young beginners were cheered in one of the cinema houses which was kind enough and thought it condescending in letting its stage to their performances.

So the need of a national theatre is necessary and urgent and if the government can afford to restore old antiquities to house such or such

personality without regarding the amount of money which has to be spent, it has the duty before anything else of this kind, to erect a national theater which will serve a double aim: a stage where the talent of our youngmen and our young girls is revealed, and a place where educated people will applaud the national as well as foreign masterpieces.

A careful study of the "Plan ECOCHARD Relatif à l'urbanisme et au développement de la ville de Beirut," led me to the choice of the site of the OPERA. I was bound by the prerequisite conditions that the emplacement should satisfy: it has to be in the centre of the city near the other public buildings and at the same time far from the old constructions which could spoil the background of the project. It was asking the impossible because as every body must have noticed, the central places of Beirut are already full of the most heteroclitic buildings and the only solution was to have it built outside Beirut, in one of its suburbs.

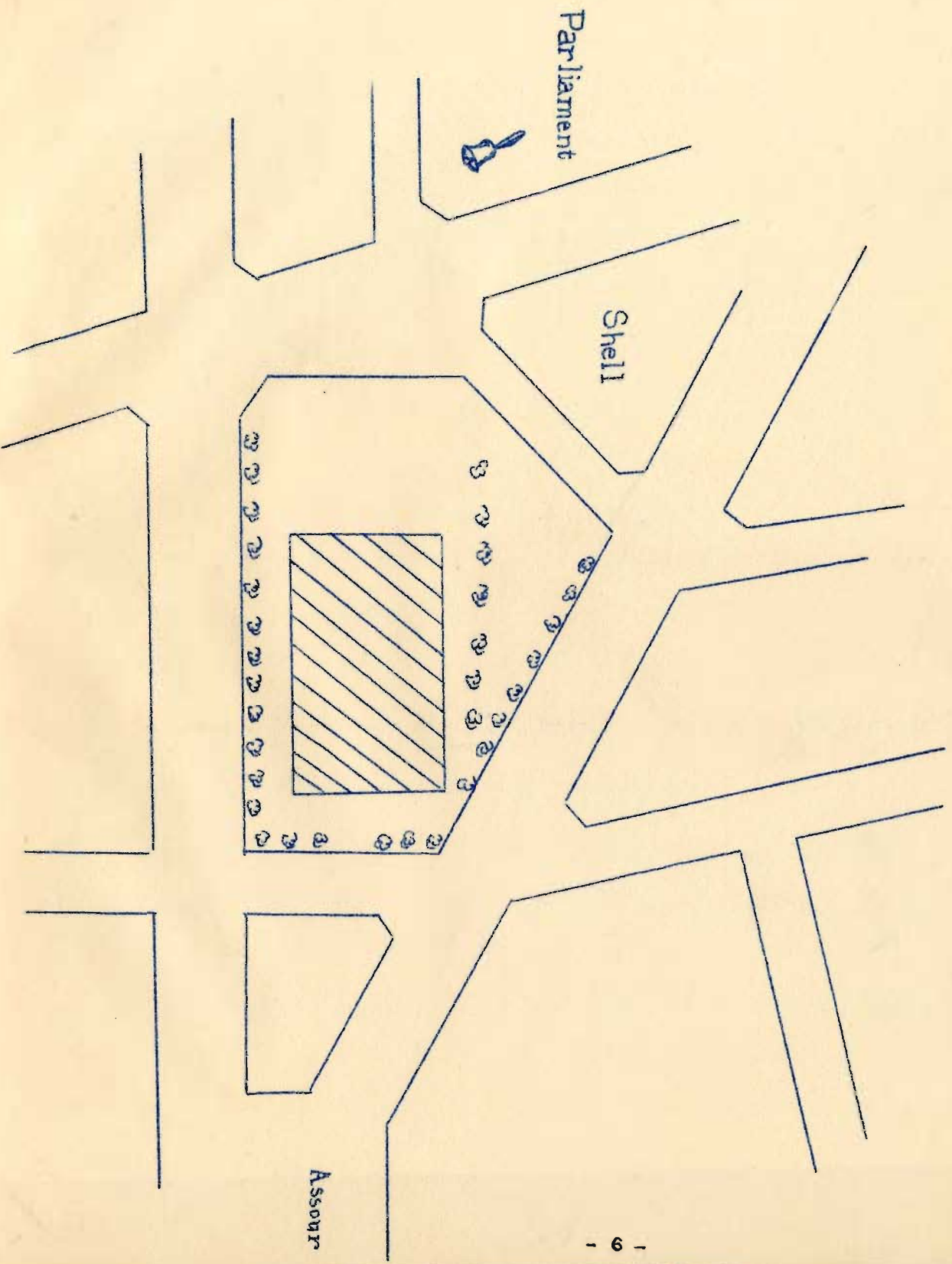
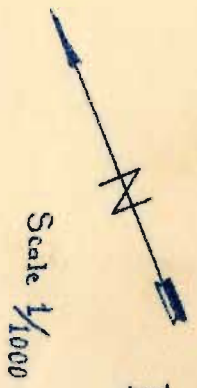
The good initiative taken by the municipality to set to work one of the best project of the Ecochard plan was favorable to my scheme.

Upon studying the plan shown hereafter, the reader can easily see the good work done by the municipality in clearing this important place stretching from the clock tower to the Halles, and also can have a clear idea about the location of the OPERA.

The chosen plot of ground is the most appropriate in both quality and situation: the building is going to be of a relatively bulky and heavy shape and will require a resistant soil; the actual place is of a uniform material formed of a solid rock which can stand the heaviest foundations without any serious settlements or if there is any: it will be of a uniform character and will not affect the æsthesia nor the strength of the theatre.



Location plan



As for the situation; after a brief consultation of the map, it is seen that the Parliament will be a **back ground**, together with the clock tower; on the **glance** the beautiful Public works building and on the other sides a flat piece of land belonging to the municipality and where the construction will be restricted to those buildings only which will match with the already existing ones and which will not hinder the performances and the maintainance of the theatre.

It is on this place that the building will be erected of a heavy but simple and modern aspect, of a quite new style stretching on a length of almost 46m. and a width of 26m. The ground being of a relatively big size will permit the growth of trees and the maintainance of nice gardens which will put a harmonious note in this busy place of the city; trees will absorb the carbon dioxyde and will serve a hygenic purpose.

The height of 18.5m. will not be unpleasant because it is the height of the majority of the surrounding buildings.

As for the streets, it will be enough to say that they are taken from the plan Echochard and that the famous town planer has predicted a busy place in that part of Beirut and took the necessary dispositions as to the width and the planning of these streets. So the 1000 spectators that the OPERA can contain will be easily disserved by the already planned roads which will turn around it with an average width of 16 m. and

where no tramways will come to disturb the traffic and the performances.

As it was already stated the OPERA is designed ~~for~~ its house only 1000 seats because, after a serious discussions with competent authorities in this matter I reached the conclusion that an even lesser number of person in Beirut will attend such kind of performances, but in prevision of the future the 1000 was adopted as a fair number of seats.

These 1000 seats will be distributed over the pit and three balconies; the pit and the 1st balcony have boxes on their outer periphery. The confort of the spectators was especially looked for and a luxious bar and lounge were provided to this effect for the privileged cast of persons which will have access to the OPERA.

The back stage is well disposed to receive troops of actors and every thing is provided for their total confort and will spare them the inconvenience of hotels.

The last floor is reserved for the direction of the theatre and an assembly hall is provided for the committee. The entrance is done through three big doors 3.60m. X 3.60m. with very simple ironwork and give access to a large hall 8.40m. X 24m. where undecided people can try to make up their mind instead of doing it on the sidewalk as is the case for almost all our existing cinemas. Imposing columns, simple in their architectural style are of a structural as well as of a decorative purpose.

The beams joining the columns and supporting the floors will help the lighting installation; to this effect they will be stepped and will hide the light and will cast a diffuse restful light in the hall. This is done by making use of the modern principle of using light decoratively getting decoration from the light itself rather than the fitting, giving as much light as possible without glare.

Sunlight during daytime is received through the huge opening provided for this purpose and the window frames are of metal so that they occupy only 15% of the total area, while wooden frames would have taken around 30%.

The height of the ceiling is 6,20m. and was chosen for a structural as well as a psychological effect; a person entering such a hall 24m. long will not feel crashed by an imposing height but on the contrary will feel selfconscious of his personality when the ceiling is only at a height of 6.20m.

The two coat rooms, one on each side are large enough and allow all people to get rid of their coats in quickest possible way and to recuperate them at the end of the performances in an easy manner unknown to the people of Beirut where one prefers to keep on a heavy coat instead of depositing it in a coat room where one can have it back after a heavy fight.

The wicket is semi-circular and this form is choosed to match with the



two coatrooms, and is situated in the middle of the hall facing the entrance and has four ticket windows which will provide a quick sale of tickets. The interior dimensions are respectable and were designed so intentionally to allow the persons employed there to move about easily while I have noticed that all such places were very small and the persons inside were sacrificed against all human and hygienic laws.

Four doors communicate the entrance hall with the staircase as well as the auditorium. People can move about in the front part of the building without having to pay for any tickets because they can do it without entering the auditorium.

The stairs lead directly to the first floor or pit which is of the same level as the bar restaurant and lounge. This lounge has the same dimensions as the entrance hall will be the first of its kind in a theatre; it will enable epicurean to satisfy their vice; a bar restaurant will make the joy of gastronomists; a lounge where chatter boxes can rest and gossip to their heart content and at the same time get cigarettes and books from a place specially prepared for this purpose.

The lounge has not only the dimensions but also the architecture and decoration similar to those of the entrance hall; the same windows continue from the ground floor to the last floor. Following these same stairs the top floor reserved for the administration is reached.

As the administration of such an institution cannot be intrusted to any one except to eminent artists, a lodging worthy of them was planned. The president of the OPERA office is quite big and richly but simply decorated; it has a waiting room facing the secretary's office which communicates with the director through an interior door.

Next to it a large hall called the Assembly hall needful to all big theatres: its dimensions allow the meeting of the membres of the OPERA committee for the discussion of problems concerning this institution; the decoration of this hall must be simple but rich according to the modern laws of interior decoration.

On the other side of the same floor are situated the offices for the employees concerned with the choice of artists, hiring of musicians etc.

The staircase leading to the different floors is spacious enough to allow the indolent people of Beirut to come down-stairs very slowly while commenting and gossiping, thing which is very troublesome to do in other theatres and seems to annoy them so much. Openings in the first floor allow onlookers to see what is happening in the entrance hall, while people sitting in the lounge can be seen from the third floor through similar openings.

The form of the auditorium is a very good one and it allows the grouping of the seats around the stage in such a way that the maximum distance of direct sight to the seat in the gallery will be 20m. and in the pit 15m.

so that the use of Opera glasses is avoided. The semi circular form was adopted although the outer shape of the building is a regular rectangle. On the outer periphery are situated the 32 boxes which will be provided for the elite of the society and were very comfortably designed to give a feeling of reclusion as well as a complete view of the stage. The division between boxes is done by their partition walls which varies in height from 1m. on the front to ceiling height at the rear of the box.

The pit lays between the orchestra place and the boxes and is inclined uniformly of 2,5% based on the principle that the observer's eye will see the stage level at a height of 20m. and above the shoulder of the person in the 2nd row, so that the 3rd row will clear the stage completely. The longitudinal rows of seats are abit diagonals so that the line of vision of a spectator will pass over the shoulder of the one in front of him.

The auditorium communicates with a clearance passage which will allow the people to take fresh air in the interludes without their having to leave the building. This passage, well lit and ventilated thanks to the many windows, will be a mean to renew the viciated air of the house without causing troublesome cold draughts and will solve the air conditioning problem without having to use the complicated mechanical methods.

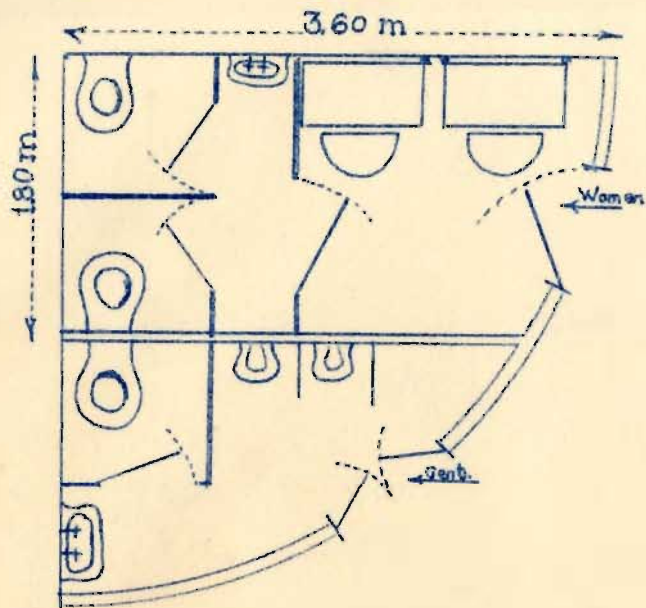
The first balcony contains two rows of seats and 16 boxes identical with those of the first floor in construction and form and has its clearance passage as well.

The second and third balcony contain no boxes but only seats but have similar accommodations: clearance passage and toilet rooms.

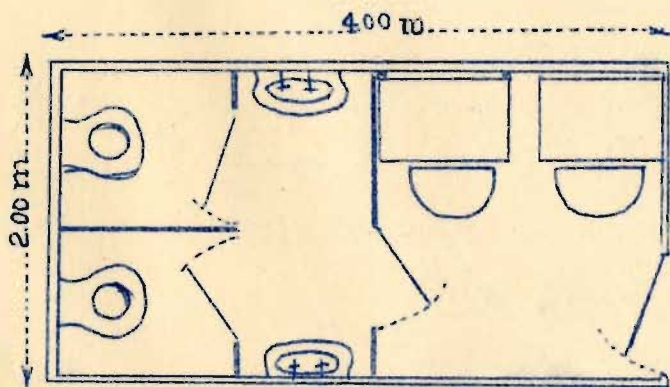
In each clearance passage and on each side there is a toilet room for men and women and is especially intended for the make up. This room is semi-circular and is situated in the corner. Its radius is 3.60m. and divided by a partition wall. The gents place is simple and is provided with one W.C. and 2 Uriners 2 lavabos with mirrors. The women side is a non complicated one and has two W. C. and 2 lavabos with mirrors, while the opposite side of the wall is provided all long with mirrors and toilet tables and chairs. It is understood that the lighting in this place must be a very good one.

The stage 11 by 17<sup>m.</sup> with a proscenium opening of 10m. X 11.5m; these dimensions were taken from Kidder and Parker's Civil Engineering Hand book in the Chapter reserved for stages: "the utmost distance, from the front of the stage to the rear ought not to exceed 75', the width of the ideal theatre, between inside walls should be from 70 - 75' and the ceiling should be from 55' to 65' or even 70' above the stage, the depth of the carpet floor at the orchestra rail is governed by the stage level and is from 3' 6" to 4' 3" below the stage, a depth of 3' 9" is good and fixes the eye of the spectator 5" above the stage level the height of the stage, (i.e.) from the floor to the bottom of the griderion should be 2 or 3' over twice the height of





Typical toilet-room  
for spectators



Toilet-room for actors

Scale  $1/50$

proscenium opening, in order that the fire curtain may be raised the full height of the opening, There should be height of 7' above the griderion to enable the fly men to adjust their ropes with facility.

The inclination of the stage is here 2.5% and four doors give access to it from the two depots and two from the back stage corridor.

The orchestra box is situated in its usual place, near the stage at an elevation of 1.80m. from the proscenium so that the conductor standing can see the performance and conduct the orchestra accordingly without being in the way of any spectator. The stepped floor allows the conductor to have a full view of all his musicians and to show to the public only the principal instruments: pianos, violin and trumpet. The idea of the orchestra is a secondary one and that is why it is usually dissimulated. The width allows the musicians to be seated comfortably; but when it comes to a musical performance, then the orchestra may go up to the stage which can receive the biggest orchestra in the world. The access to the orchestra may go up to the stage which can receive the biggest orchestra in the world. The access to the orchestra box is done through two stairs coming down from the first landing of the first floor stairs and not from the floor directly; this puts a barrier between the spectators and the artists.

The artists quarters occupy the back of the building and are of the

most completely equipped from both the comfort and technical point of view. As the first floor is raised in order to have basement serving as a depot for heavy things which are not of an every day use the access to the ground floor is made by means of two stairs going in opposite directions of 12 steps each and ending by a landing on each extremity of this rear Façade. This arrangement allows to have two artists entrances and exits instead of the traditional middle entrance which in case of an accident or a very possible fire will be easily obstructed and may cause serious difficulties. The two entrances lead to two staircases which open to a corridor joining the extremities of the back stage: this 24m. long by 1.60m. wide corridor is repeated in every story and puts all rooms and halls of this part of the building in communication with one another, with the stage and with the exterior. In direct contact with the entrances there are two depots for decorations with their length of 9.20m. and width of 3.20m. and their height of two stories or 6.20m. they can receive all stage decorations. Two doors open to the stage and are used for bringing materials as well as for acting purposes.

Each side of the first floor is reserved for the actors of one sex: to the right a toilet room for women is divided into 2 parts : 1) a W.C. and 2) a lavabo, mirror and toilet table and chair where women artists make up before leaving the theatre.

Near the toilet and symmetrical to the other side a 4m. X 3.50m. room is reserved for the make up of the artists before going up to the stage

and for this purpose has got a door facing directly the stage entrance then in the middle of this first floor is the so necessary 6.20m. X 4m. rest room where actors of both sexes rest while waiting for their turn to go on the stage. That is all for this 1st. floor and one can see that in this floor are grouped the rooms and places which are of first need for the stage.

The second floor is more quiet and rooms for first class artists : two for men and two for women as well as two green rooms where these same persons can rest and entertain their friends in the interludes.

The last floor is reserved for foreign first class actors who will live in the OPERA instead of going to a hotel. Two out of the three artists rooms of this story have waiting rooms through which have to pass reporters and admirers of stars before being able to be introduced to the room proper of these artists. It should be noted that differently from other stories, this one has got two doors communicating the back-stage with the auditorium.

In the long corridors, on the two sides are put the depots for costumes; these are metal placards 3.50m. long by 1.50m. deep this depth allow the hanging of four rows of costumes occupying 22cm. by 60 cm.; the fetcher could move in the free space between the rows. 1.50m. is the needed height



for the hanging of one dress and so we may have two vertical rows, a rough estimation will be of more than 250 costumes on each side. These will comprise the costumes used for the season; the others which are not of an immediate use, will be packed in the basement.

The last story will lodge quite a number of artists; a troupe like the Comédie Française will have its 4 or 5 principal actors housed in the rooms already described here above, as for the others they may be lodged in this floor where besides two artist-rooms, two small rooms and a big one, there will be one W.C. and toilet for men and one W.C. and toilet for women identical with those of the first floor.

In one of the sides there is a bar restaurant where the actors may have some refreshments and sometimes may have even their meals.

From a general point of view the reader has already noticed that the comfort of the actors was as much looked for as that of the spectator, because it was not intended to be a cheap theatre but a national one where foreign troupes can be lodged at the government expenses so well that these same troupes can avoid their living in hotels. They will not find the hotels luxuries but a certain atmosphere of modernism, comfort and cleanliness will take them away from the usual backstage one. The walls of their rooms will be plastered and their plywood doors painted white.

It is from this last floor that the high hanging decorations balcony

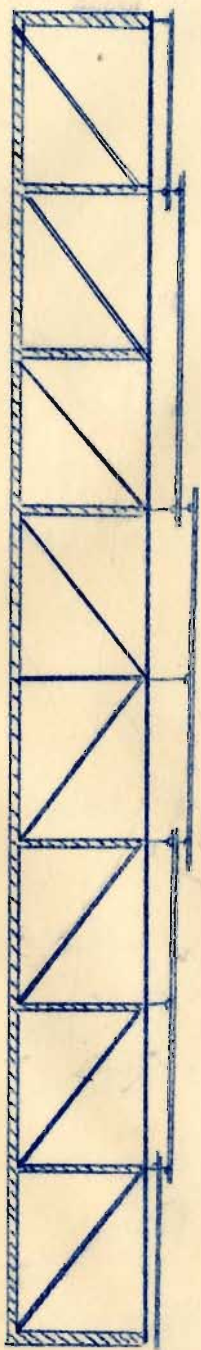
is reached; after going up three steps a door gives entrance to the iron balcony which turns around the 3 dimensions of stage out of ~~five~~<sup>four</sup> floor. It is from there that the stage machinists hang the decorations. It is from there also that the truss and the ceiling are reached.

The question of covering the roofs of the entire building offered at first sight serious difficulties, because of the dimensions of the auditorium: 17.50m, the other parts could be covered with a usual reinforced concrete floor without exceeding the allowable limits in length of beams and thickness of slabs.

The problem was solved by the use of a truss having some of its members of steel ( compression members ) .

For a combination of steel and concrete the Pratt-truss was used because it offered a good solution to the problem; the top chord members were of reinforced concrete and served as beams for the reinforced concrete roof slab.

The vertical members being in compression, reinforced concrete was also used, with a precaution for column action or buckling. As for the diagonals there were made of steel and were well connected to the concrete slab and vertical members.



8 @ 2.20m = 17.60m c.to c.

A combination of steel & concrete Pratt truss  
with hanging ceiling

== steel members

== concrete members

The steel lower chord members, being in tension, only steel was used and served a structural and ornamental purpose:

The patterns of the ceiling are of a simple suitable form matching with the proscenium opening and the design of the curtain; these patterns are hung from the lower chord members of the truss and serve for an indirect illumination of the auditorium.

The structural part at first approach looked complicated and very difficult but was soon mastered thanks to the adaptability of reinforced concrete. The problem of building the balconies was then faced; the last balcony where no columns can be put was done by a very cunning system: the 3.50m. of projecting width were hung to the auditorium back wall and the weight balanced to the other side; it was easier with the second and first balcony where columns supported them without any damage to the architectural plan and even with perfect accord with it as these columns played a major role in giving the auditorium a less severe but serene type.

The side boxes did not present any serious difficulty, being of a relatively small size, the cantilever solution was easily adopted; the front side floors are resting on big beams supported on column on one side and on walls on the other and continuous to the front of the building.

When the structural part was closed and the interior technical and architectural part was settled one considers the problem as already closed: this



is an impardonable ignorance for there starts the real difficulty : housing the OPERA in a modern simple style construction far from the Rococo.

In studying the different styles and types of architecture an educated and honest with himself person will clearly see that what our social conditions and taste demand is something different from what our ancestors were used to.

The apogée of pleasure came just before the French revolution and developed what is known as the Rococo style; but this was created by and for a people avid of amusements and refinements and reflected its social and artistic life; they wore dresses rided incwaches matching with it; even the language was so utterly refined and emphemism pushed to such an extent that we need an explanatory glossary to understand it. So, in a way the Rococo architecture in the 18th century was sincere but had to fade out with the French revolution and artists began to look for another style adaptable to the different people who came afterwards.

But as the above mentioned period was known for its extraordinary gaiety, pleasure seeking people clung to its architecture in the hope of getting out of it the pleasure it once gave the 18th century nobles. Artists in their haste to please the mob bowed in front of it and offered us for 200 years a dishonest or rather insincere style of architecture; but there is no art in imitating other works of art and a good design must

be useful and original; useful arts are social and social conditions are always changing; to a medieval architecture lover there is only one answer: let him dress and live as did the people he wants to imitate; deprive him of the comfort of the 20th century, of the practical and clean objects surrounding him let him live in the decor of those he cherishes and he will most probably change his mind; and if he does not, therefore he may be classified with these people who love the past for itself and live buried in museums.

No, the old classical style could not be applied to the Opera without insulting art and its lovers; no naked females sprawling along complicated cornices were designed; nor fat cupids blowing trumpets; all that was good for that kind of people of that age when going to the Opera was a social event; when men were more harnessed than any woman, when the performance was their least care, when they looked at pompous beauties through opera-glasses.

In our time the play is the important part and what we are after is a clean chair, comfortable enough and a clear line of sight.

Not being an extremist myself I tried not to fall in the bigger mistake of the ultra-modern-cubism. A box-like building will not be decent housing for a national theatre. The closed type was a lucky solution as it escapes both extremes. A modern in its simplicity building far from the usual monotony of this style.

The frontage was made out of columns, four of them, rising to the tremendous height of 18m, beautiful in their heaviness and bulk. But the psychological stability required a basis for these huge columns the pedestal was to have a height and a shape to match with the dimensions of the columns less bulk and more stability.

The number of front column was chosen in such a way so that the number of openings will be 3 or more, usually an odd figure so that the axis of symmetry of the facade will be through an opening and not a column.

No obstacle was going to break the sense of height and in that idea slabs belonging to the different floors were made to rest on beams supported on the inside portion of the column and will not show from the outside .

The next problem was the style and form of the columns to be used. One idea was clear : the column must have a front and central piece and recessed portions on the sides. The central portion may go up the full height of the building; the two wing portions should stop at a certain distance from the top which will be fixed later on. The solution would have been easy had it not been for the corner columns which will show on a side elevation a somewhat different view from the front picture.

The chosen column solves all the problems  
The frontage of the Opera is only 26m. and may be easily designed without

falling in the monotony of the repetition; the side was somewhat different from the other one, but will emanate from it being its logical continuation.

The first 18m. were a duplicate of the frontage, only here two openings were designed because while the façade was inviting to enter the building, the side view had to put away this idea and tell the onlooker that these openings were made only for the sake of light; the odd number of columns will make the sight of the observer strike a column and by this will guess that there is no entrance from this part of the theatre; As to the details of this part, there was no possible reason for changing it and so the same columns, in design and size.

Instead of going down to the ground, the openings will stop at a height of 3.60m. from it; because these openings are windows and light is not needed below this height in accord with the modern theory of honesty to the purpose of the building. The 27 remaining meters will have special design; they will house the Opera itself and the backstage and will have to be smaller in design, pattern and style.

The same kind of columns were used with the difference that they were reduced to  $\frac{1}{2}$  the size of the others and all ratio being kept; this part of the façade had 2 stories of columns the first story presented columns alternating with openings of 1.80m. in width and 12.50m. in height and the striking vision of another row of columns on top with the amazing



phenomenon of having a column resting on a window and vice versa; this odd thing was made possible thanks to the adaptibility of reinforced concrete.

From the structural point of view the problem was solved by building these columns on reinforced concrete beams which seemed as lintels to the windows below.

The second story is recessed  $35\text{m}^{\text{cm}}$  and done so that the beholder will have a clear partition view between the two rows of columns while avoiding the use of any cornice.

As to the backstage facade, it will be seen from the location plan that it was not exposed so much as the principal facade. No bulk and complicated design were needed; windows were put where rooms asked for them. To facilitate the artists exist two entrances were designed with two separate stair cases which will make the evacuation easy in case of a fire or an accident that may occur in that part of the building.

Having clung to a style of architecture, I had to carry it across the entire building and the backstage elevation with the simplicity of its form was about to spoil the effect of the side view, for the last 2nd story portion was going to be a window resting on the logical end column of the lower part. The problem was solved by the introduction of two false extra end columns of 1.80m. and which later justified their exist-

tence by hiding and supporting the backstage entrance stairs.

It will be hard trying to justify my using this type of construction, especially on the side part of the building. But it can be said that one can't argue about taste while actually is there any subject on earth people argue about more? After trying all sorts of types of modern construction this one appealed to me in its simplicity and its originality; once the structural difficulty was mastered it became obvious to me that this simple naive construction had beauty in it.

Frankly it will not take the onlooker to the remote past? No it puts him right in this century and in the middle of it.

A handwritten signature in black ink, appearing to read "H. H. H.", is written over a diagonal line that extends from the bottom left towards the top right of the page.



