

“Architecture occupies on finding the system of buildings and of communications that make community to work and, at the same time, tries to give to it a meaning”

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URBAN AND ARCHITECTURAL OBJECTIVES

The project for the Beirut’s House of Arts and Culture is based in two decisions that guide the development of the Program. The first one consists in the need of creating a modern building which will contain the first cultural centre of its type in the city, understood as a place of cultural and artistic exhibition, exchange and interaction, as well as of production. The second decision is to ensure the right insertion of the building in its urban context, responding to its needs and capabilities.

In this way, the proposal has three main guidelines:

1- URBAN INSERTION OF THE BUILDING

As it is clear, the general objective on Beirut’s Urban Planning of the Central District is to reconstruct a part of the city severely affected by different conflicts. We understand that the aim for lot 128-4 should be aligned with it, in order to “make city”. To materialize it, the proposal is based on a series of architectural resolutions, such as the need to create a cubic volume which recomposes the planned urban block and contributes to regenerate the urban morphology.

2- ARCHITECTURAL DESIGN

According to it, in that volume the distribution of the program’s uses is organized in squared boxes, in order to accommodate the areas required and guarantee the connections between them.

The building is in line with three essential aspects: functional and morphologic clarity define a building of simple geometry and clear circulations; constructive clarity defines the appliance of traditional techniques of construction and materials of easy maintenance and of long term utility; and finally an institutional image is given by the presence of open spaces and noble materials.

3- APPLICATION OF SUSTAINABILITY CRITERIA

Finally, the concepts of sustainability are applied as fundamental criteria along all the decisions taken and all the components of the building; in themes such as spatiality, materiality, illumination, refrigeration, etc.

1- URBAN INSERTION OF THE BUILDING

The projected volume occupies a square of 55 x 55 mts on lot 128-4, and it elevates 32 mts; a building of regular sides thought within the imminent process of consolidation of the Ghalghoul area, in which its function is to recompose the traditional urban block and regenerate urban morphology. Instead of presenting itself as an abstract and irregular form dissociated of its surroundings, the building inserts in it and tends to make city.

On the other hand, also searching for urban insertion in its context, the proposal recognizes a series of preexisting elements that define design and architectural guidelines.

The first one of them is the square across Ghalghoul, which offers an open space that clearly defines a pedestrian access to the Beirut's House of Arts and Culture in its North side, from the city centre.

Ghalghoul's Street curved path as well suggests the creation of an open space through that pedestrian access in order to reduce visual impacts of a complete built block, as approaching it from East. Given these, the building has as principal access a "Culture Plaza".

To the south side, the edge is an axis of fast transit flow, to which the building responds with a blind facade that displays information on what is being exposed in the Halls, the exhibitions, other events and activities inside the Beirut's House of Arts and Culture. In this way the building offers a resolution of insertion to this hard but at the same time very dynamic edge which is the Ring Road.

Finally, to east and west sides the building has its general vehicle and service accesses, over both streets to be opened.

2- ARCHITECTURAL DESIGN

As seen from the outside, the built volume consists of a glass and concrete box containing the “Culture Plaza”, smaller boxes in which the program’s uses are distributed and a vertical circulation nucleus that organizes the whole building.

The “Culture Plaza” is set at +4.00 –mainly to respond to the pronounced ground gradient-, which acts as foyer, resting and social area for those who come enjoy activities at the House of Arts and Culture. As it is visible and connected to all the areas of the Programme, it distributes visitors through the building. A cafeteria, a restaurant and a gift-cultural shop, share the scene with a special character: the *cedrus libani*.

The upper box at +28.00 contains the documentation center and public library, an area naturally illuminated by outdoor terraces; and from which visitors can access to a lookout terrace of the city of Beirut.

3- APPLICATION OF SUSTAINABILITY CRITERIA

The decisions taken for the design of the building and disposal of the activities that it contains were taken, not only in the need of applying to the Programme and responding to the urban context, but also with the general criteria of sustainability. In this way, penetration of light through the North facade and the blinder South facade – for example- represents a better use of natural light and energy, contributing on its savings in light and refrigeration.

The project also contemplates the possibility of incorporating recycling and reuse infrastructure for water and renewal sources of energy.

The selection of noble materials and quality design guarantee the building’s functionality in the long term. Its configuration in boxes allows diverse uses in them, according to future needs.

TECHNICAL AND BUILDING SOLUTIONS

Thermo mechanical installation

For this building a Variable Refrigeration Volume (VRV) is chosen. This technology controls the proportional distribution of the refrigerant through a circuit based on demand, and thus delivers the appropriate amount for each temperature requirement with no need for the circuit to be operating permanently. This system allows us to discriminate each area and, in case there is any failure, the others can continue to function normally. In addition, the VRV discriminates delivery of cold or heat in different areas simultaneously, and employs the new generation of environmentally friendly refrigerants. This technology varies the speed of the compressor for an efficient control of the coolant flow. The system detects the ambient temperature and -based on this- creates flows of coolant. In this way we can get an energy saving of 20%. This equipment detects areas with excessive heat, absorbs it and, instead of launching it into the environment, it is distributed in the areas that need it. With this quality we can achieve a saving of around 40% of energy. They will be fitted with a high-tech system of digital and programmable thermostats.

Structure

The proposed architecture consists of two basements and seven superior levels. Materials: Concrete: H-30 / Steel Armor: AND-420. The structure will be defined according to current and local regulations.

Acoustic structure

To adequate the interior acoustic, a roof of pivoting panels is proposed. These panels have two faces: one of them is sound absorbent and the other one is reflective. As they can rotate full turns, they can be adjusted to the requirements of each area and event (for example, more absorption for exhibitions and more reflection for musical events). In reference to the acoustic isolation of the halls and the cinematheque, the concrete walls of the boxes have isolation panels or double glass. In the ceilings, isolation is given by several layers of absorption panels: first the double faced panels, then the ceiling itself with a layer as thick as the calculus requires, of light absorbent material, with a barrier of vapor over it, and finally the roof that will have an absorbent and incombustible material, such us fiberglass. The application of these elements will avoid the roof's vibration and transmission of sound.