



The House of Arts and Culture
The Lebanese – Omani Centre

Cedrus

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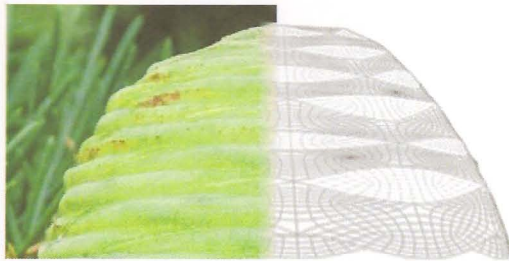
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ARCHITECTURAL AND TECHNICAL REPORT

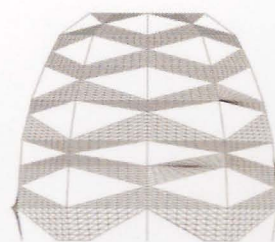


Beirut is one of the major centers of cultural brilliance in the Middle East. We wish the House of Arts and Culture of Beirut to be unique as well as harmonious with its regional context. The shape of the building stands as a symbol of the Lebanese culture, expressing itself in a multi-faceted way. It

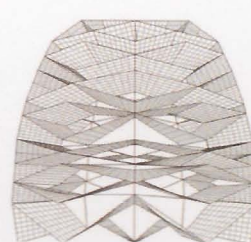
is a place of meeting and social communication, and it is also a place of openness and broadcasting. It facilitates creativity in various artistic and active ways.



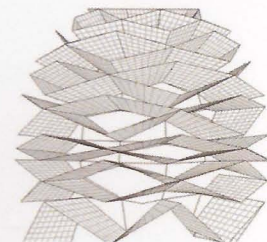
_Green cedar stage



_Ridifying fluidity of texture



_Ripe cone



_Open cone

Architectural concept

The House of Arts & Culture of Beirut is a celebration of natural and organic geometry, through a reinterpretation of the shape of Lebanon's cedar apple. We wish to register this "Maison du Peuple" in its archetypal history. As a symbol of Lebanon, the cedar is also a production source of poetic images, deeply imprinted in the collective memory and imagination.

Observation of the cedar apple reveals an infinitely complex geometry. The structure is registered in a regular and plan polygon which drills while reducing its section. Proliferating, changeable according to the state of maturity, the section of the fruit gradually changes its shape: from a compact and dense object, it transforms, as it matures, into an opened and ligneous shape.

The Lebanese master artists in ornamentation, in marquetry for example, made us acutely aware of this geometry in nature. We imagined the House of Arts & Culture of Beirut as a symbol of Lebanese imagination and creativity.

Urban and landscape concept

The site of the project is positioned in the district of Ghalghoul, a place in total transformation. The project plays a role of attraction and gives dynamism to the whole district's rejuvenation. The radiant configuration of its volume reveals it as an iconic and balanced object in the townscape of Beirut.

At the landscape level, the outer spaces, the square and the big hall are conceived as the same surface. This surface deforms gradually, with the horizontal level of the street gently shifting downward towards the lobby, inviting the visitors to penetrate into the House of Arts & Culture. At night, the building reveals its functions outwardly and its architectural structure comes to light.

Functional and spatial organization

The public access to the House of Arts & Culture is located at the West side, by the wide square connected to the hall. The service access is situated at the opposite side, at the East. The ground floor is fluid and forms a link between the ground of the city and the program. The immense square, conceived as a continuity of the public place, is the place of meeting and exceptional events creation.

The vertical circulations are realized by way of two major principles. The first one is functional, a central newel including public staircases, backstairs, lifts and elevators. It directly connects all the floors, from the car park at the basement 2 to the cafeteria at the 11th floor. The second is an upward and peripheral architectural walk, allowing a stage-like setting for the accessing the

big auditorium. It offers varied framed views of the city of Beirut from the hall up to the panoramic cafeteria.

All the functional entities are accessible from the first floor. The car park is situated at the basement 2 for a total of 278 spaces, with an access at Ghalgoul street. The delivery is made at the basement 1 with an access at the avenue of the General Fouad Chehab.

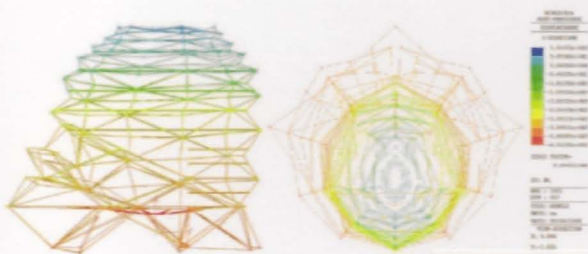
Reception and information areas are situated in the ground floor with the commercial spaces. The big performance hall of 800 seat, central space of the program takes place at the 2nd and 3rd floor directly above the entrance hall.



The theater of 250 places and the cinema of 200 places are situated with the Exhibition hall of 1000m² at the basement 1. This floor is connected to the hall by a central monumental staircase. Light spaces opened to the city—the administration, the workshops and the formation rooms—are positioned at the higher levels, 7th, 8th, 9th and 10th floors, with the documentation center library directly accessible at the 9th floor. Finally, at the highest level of the project, the cafeteria, bathed by light, provides impressive and expansive views over whole city of Beirut.

Technical and structural concept

The design and the structure of the building are one and the same. Its enclosure is structural, characterized by a peripheral framing made of inclined reinforced concrete planes, developing all around the building. The façade is self-supporting, triangulated by light and discreet mullions, and adds to the general bracing. The inclined flower-shaped planes provide public circulation from the base. The exterior slab edges (made of architectonic concrete) are minimized in order to emphasize the organic nature of the building. Interior structure is provided by concrete shear walls, mullions and slabs.



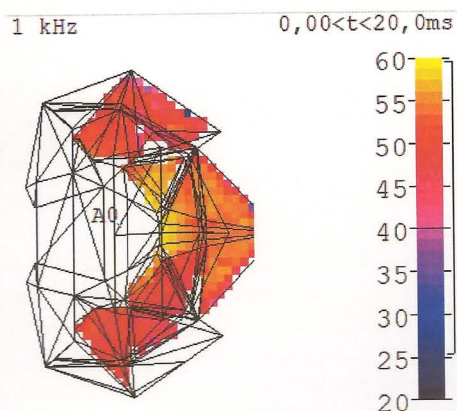
The long spans are provided by ladder beams, of one level high each positioned above the auditorium. Big openings are made by a metal structure and a ventilated glass double-skin.

The double-skin provides an optimal thermal comfort throughout the different seasons. Wood has been chosen for interior cladding for acoustic reasons in performance halls, cinema and exhibition space.

Acoustical concept

The project design offers optimal acoustical solutions thanks to its singular shape. These acoustical performance specifications raise the House of the Culture, and its 800 seats performance hall to an International standard.

The 7000m³ morphology, ideal for symphonic music, is an acoustic shell made of an umbrella system opening from the ceiling. In order to provide an optimal diffusion for low frequencies, the walkway shapes are designed like long broken lines. The aimed reverberation time will be 1,5-1,6 seconds for symphonic concerts, 1,2 seconds for lyric operas and 0,8 seconds for theater, conferences and amplified music.



In order to supply acoustical diffusion to medium frequencies, the concrete walkway's edges are treated like random acoustic diffusers. The concrete will be directly molded with a specific form in order to avoid an excess of acoustical absorption in the medium frequencies. The ceiling will consist of strongly diffusing geometrical elements, with double-slope reflectors placed in random positions (no privileged position).

Planned velvet curtains—strongly pleated (200%)—act as a complement for variability. They are retractable from beneath the ceiling, below the walkways. The diagram of the acoustic pressure indicated the levels received according to various rows' positions of the performance hall, from 0 to 200ms after the sound begins.