The House of Arts and Culture - The Lebanese Omani Centre



Urban and Historical Context Physically, historically and culturally Beirut has been and remains the amalgamation of different peoples. The site, like the city, carries the memories of many cultures and many ages: from the Canaanites, Phoenicians Assyrians, Babylonians, Persians, Greeks, Romans, Byzantines, to the Omayyad and Abbasid Caliphate, and the Mamulkes, to the Ottomans and French and now to the Lebanese Republic. It has been said that the layering of cultures – particularly in the historic centre – and the resulting cross-pollination of ideas and beliefs, made Beirut unique.



Set at the edge of the historic centre - The House of Arts and Culture will be a critical piece in the reconstruction of the city centre. The House overlooks a tree lined public square. The east and particularly the south facades will be very visible from rue General Fouad Chehab and the hills and neighborhoods that surround the historic centre to the south.



Inspiration and Goals The stated goal of the project is to promote the development of new art forms that reflect the renaissance of Beirut. A single structure will be home to facilities for a range of artistic expression: Theatre, Dance, Graphic, Cinematic, and Environmental arts. Facilities vary from large public spaces to small workshops. The House of Art and Culture will promote excellence not only in traditional media by providing state of the art venues but also trans-disciplinary exchanges between them.

The inspiration for the project is an souk. This building will mirror the unexpected adjacencies of content, display and character. The distinction between public and private realms can be blurred or remain distinct as programme demands.



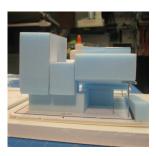
Building Image The building form, geometrical patterns and construction methods place the structure within the rich tradition of Middle Eastern vernacular architecture. But the ambitious programme that attempts to house disparate activities under one roof requires a transformation of traditional strategies. The skyline of Beirut is dominated by masonry buildings of light earth tones. The colour and transparency of the building will fit comfortably within the historic fabric and the more modern projects of Portzamparc and Jean Nouvel.

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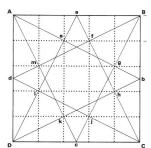


Geometry The equilateral triangle is one of the simplest and most economical geometric tiling. It is also the most efficient structural form. Tile patterns - organic and mathematically derived - have a rich history in Islamic architectural ornament. These tiling patterns illustrate the variety and complexity of design that can be generated from simple algorithms. Complexity is often achieved by overlaying different geometries at different scales or through rotation. In the House of Art and Culture, each volume has a skin independent of the exterior superstructure and screen. These interior facades are inscribed with similar patterns relating to the construction material. At moments when seen together, these layers create one composition. New patterns emerge depending upon one's vantage point, providing select vignettes or a modesty screen for work that should be shielded from public view.

Building Organization



The House The proposed structure respects the zoning envelope as stipulated in the competition brief. The building is conventional at first glance - an extension of the traditional urban fabric. The organization of the building derives from the traditional courtyard typology with programme spaces arrayed around a central void. This form echoes both the domestic and civic scale of the city. The figure of the courtyard here is irregular shaped by a series of rooms, or stacked volumes with specialized climates. From the National Cinemathèque to the individual workshop, each volume corresponds to areas designated in the brief. The interstitial spaces between the volumes serve as informal public spaces.



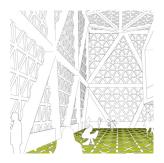
Planning Module A horizontal and vertical planning grid of 2700mm has been used to give order to the building; this is further divided into thirds. This 900m grid provides a measurable human scale. The rigorous use of a planning module and adherence to geometric planning strategies are consistent with the tradition of building in the region.

Rooms Manipulation of the façade allows critical spaces to be extroverted. The smaller Multi Media Hall overhangs rue Ghalghoul. Performances can be seen simultaneously from inside the hall, from the street below and in the future from the Grand Théâtre to the northeast. Similarly the north wall of the Exhibition Hall is conceived as a scrim for rear projection or for the placement large scale art works.

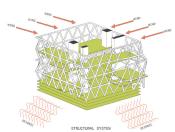


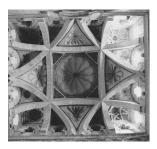
The screens of the facades filter discreet views of the terraced gardens as well as installations or performances that occur along the public promenade. Towards the evening as the light changes the illuminated facades, individual volumes will emerge.

These views to and from the building experientially extend the precinct of the House into the adjacent streets and neighborhood.



Circulation Public circulation begins at street level. Lifts lead to the various programme areas. A grand public stair leads to the Large Performance Hall. This stair is the beginning of a public promenade that travels through the building. Along this path are secure entries to the various programme spaces, terraces and gardens. Along the path between volumes these spaces provide settings for impromptu performances, exhibitions and small gatherings. Secondary walkways link the programmed spaces to the entry at the street level and to each other. The promenade culminates at the public roof terrace and restaurant which have commanding views of Beirut and will appear as a beacon from twilight to dawn.





The building is serviced from the rear and is accessed from the major artery, rue General Fouad Chehab. The north edge of the site is 8 metres lower than the back or south edge. Service vehicles and deliveries enter the building at the higher elevation or in the centre of the building. Passenger cars enter the parking garage ramps at the northwest corner.

The House sits atop three levels of underground parking. Major mechanical rooms are housed in the subterranean levels. The programme distribution has been configured in accordance with the programme diagram. As in any house, more public spaces are immediate to the entry. Programme requiring light and air are set higher in the structure.

Structure The façade of the Culture Centre is an exoskeleton where the major structural elements will be made from cast-in-place concrete. The infill screens are repetitive components, formed as precast concrete. Exposed concrete will be made from local sand and crushed stone. Cast in place floor plates and roof plates are tied to exterior structure to brace the building against seismic forces. The skeleton and the screens tie the project to the construction tradition and design of Islamic and Arabic architecture.

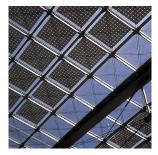
Many geological faults cut across Lebanon including the Roum Fault which runs towards Beirut and is considered the most active. Primary structural consideration is given to resisting potential seismic loads.

Building Systems The temperate climate minimizes the need for heating and cooling systems. Most of the cooling loads will be generated by programme systems and activities within each of the spaces. Some areas will require more robust solutions to preserve the artifacts preserved within or to be able to stage 21st century productions. Ultimately, the mechanical systems and building envelope need to be tailored to each space. Systems will include displacement ventilation below the rake of the performance hall, with heat pumps fed from geo-thermal wells. Radiant floor systems are proposed for most of the conditioned areas with supplemental forced air for humidification and de-humidification

Natural Ventilation It is the goal of the project to make use of as many passive systems as possible. A central oculus will promote natural ventilation. Acting as a chimney, it will make use of the "stack effect" to draw cool air in through the base of the building and exhaust hot air out the top. Fans will be provided throughout to assist.



Garden Roof Average rainfall in Beirut is roughly 825mm. with 85% of the rainfall between November and March. Rainwater will be collected in underground cisterns and filtered before reuse. Collected water will be fed to the planted roofs particularly during the summer months when little to no rain can be predicted. Planted roofs will offer the symbolism of regeneration as well as the practical reality of evaporative cooling and added thermal insulation. Planted with reference to the historical mulberry orchards that once occupied the area, these moments of paradise – derived from the Persian word for enclosed garden – will be found throughout the building and provide spaces for quiet reflection.



Green Energy The infill pre-cast screens will house polycrystalline photovoltaic cells. The electricity generated by the cells will help to offset the energy required by the Centre. The panels will also provide additional shading where it is needed most – above the roof terraces. Additional panels can be set in the south and east facades.

The House of Art and Culture will draw on two prototypes: a courtyard house and an urban market. As such, it will be a new focus for cultural life in Beirut and a venue for creative projects and events. As a House organized around a courtyard, it will sit comfortably within the long tradition of regional architecture. Its rooms will provide independence and privacy. Like a *souk*, it's pathways will offer shared experiences, informal moments for creative discussion and organized public expression.