Design Concept

The project design concept is based on six design approaches; form, function and history; and their complementaries which construction, context and are will. respectively. Figure 1 identifies the Architects objectives and the design elements that are brought into play to "Archisculpt" the House of Art and Culture in Beirut.

The design concept is mainly based on the architects *Will* to design a Novel / Original building that reflects the Spirit of the Future. Therefore, 3D computer modeling was the first step towards creativity.



Figure 1. Design concept approaches

The design has Mannerist tendencies and intensions to let building users live the experience of space discovery. This is achieved by the play of solid and void, light and shade which give the building a sense of Sublime and Grandeur.

The *Form* of the building consists of a pure cubic volume to reflect stability and strength of culture and knowledge and make the "memory there stable and unmoved". This static form denotes the solidity of Lebanese civilizations and culture and the square plan reclaims back the traditional Lebanese House. The proportions of the volume are ruled by BCD building codes and legislations (building height, built to line façades, etc).

In this cube, the designers find their familiar axes of experience and life, defined by the polarities of sense-perception and future-past. Sense and perception interact to produce inner and outer experience; Impulse is determined by past impressions and Assent determines the course of the future. In contrast, to break the rigidity of the cube, theses axes are not right-angled and their directions are aligned according to the urban context and directed towards the main attraction points in the site (Figure 3). On the horizontal plane, there are two intersecting axes: the *Light and Culture Tunnel* that crosses the building from the south to the north and focus at the public garden; and the "Path of Knowledge" that starts at the main entrance and traverses the building from east to west; both axes intersect at the edge of the large performance hall. These two paths also intersect at the edge of the large performance hall and strengthen its outlines and spatial identity. The third axe is

the *"Light of Inspiration"* that originates from a skylight at the roof and reaches the entrance hall at the ground floor and the foyer of the performance hall at the first basement.



Figure 2. Cube philosophy



Figure 3. Axes relation to urban context

The building comprises all the functional spaces as per the architectural program. The visitor's "Promenade" at the house of Art and culture is made diverse by letting the guest moves from one space to another by means of paths and escalators overlooking different spaces of the building all through multi-storey voids illuminated naturally by oblique skylights.

The style of the building goes in contrast with the traditional typology existing in BCD and put more emphasis on the addressing the spirit of the age by giving a high-tech imagery through rich materials and technical quality to the project to reflect the cultural context.

Spatial Organization

The project consists of 5 basements, the ground floor and 4 upper floors; 3 basements are for car parking and the other 2 for technical rooms and delivery. From the entrance hall at

the ground level, visitors can access the performance halls at the first basement. The performance halls can also be accessed from the "Light and Culture Tunnel" at the first basement level. The large performance hall is positioned on the south and west facades that are by complete solid walls, defining one of the cubes corner. The absence of openings in these two orientations helps in reducing heat gain in the building. The hall is an adaptable space that could become a round theatre or a flat space by mechanical hydraulic technique. As for the meeting rooms they are



located on the first floor and they have direct access to the foyer.

Visitors can also access the shops and cafeteria through the "Light and Culture Tunnel", and which they can operate separately as they have direct access from the outside.

From the entrance hall, the visitor can overlook the exhibitions areas which are divided in two levels (basement one and basement two) and adjacent to the garden on the north façade, which gives the ability to perform outdoor exhibitions in the extended garden area at the lower level of the exhibition.

Work and training rooms are placed at the three corners of the cube on the first and second floors to indicate the importance and role of these spaces in producing art; theatre and music workshop and the dance workshop are grouped at the second floor in an inner volume elevated within a void named the "Platform of Art". This open space gives the visitor the ability to contemplate the 'making of' art at the workshops. The second floor also includes the national cinemateque and the cinema.

The administration offices occupy the north-east part of the building on the third and fourth floors having a view on the public garden. As for the documentation center, it on the fourth and fifth levels opened to the sky and a roof garden.

Technical and Building Solution

Form is no longer something static imposed on the outside on structure with homogeneous properties or a behavior that can be assimilated by the characteristics of solid modeling, but is rather influenced by the properties of the tools used, under the form of the singularity of the digital material. Therefore, it brings out the generative processes and their possibilities connected to the concepts of interactivity, modifiability and evolution. For that reason, the static perception of the cube is broken with an organic mesh with a pattern inspired from natural form has covered the House of Art and culture to give the building the sense of dynamism and movement. The application of mesh to each facade is tailored to the

particular elevation by varying the position of the glazing within the overall façade depth. This mesh also articulated the horizontalness of the building top.

A transparent Mediamesh which combines semi translucent stainless-steel mesh with LED lights is applied also on the façade. When applied to the facade of a building, the



illuminated display is readable both by day and by night; when it is not lit up, the mesh functions as a decorative light-reflecting screen that affords those inside the building a clear view from their windows. As a face turned to the outside world, every façade makes a statement. In addition to its traditional role as protection against cold and heat and undesired entry, as an independent "inter-space" the façade passes information inwards and outwards, and bridges interferences.

Based on the same concept interactivity and modifiability, skylights and documentation center south, east and west facades are cladded with electrochromic glazing panels. This type of glazing changes from transparent to tinted by applying an electrical current to control daylighting, glare, solar heat, and fading protection in windows and skylights.



As in a forest of trees, the inner volume of the workshop of theatre and music and the workshop of dancing are elevated on slender concealed aluminum column.