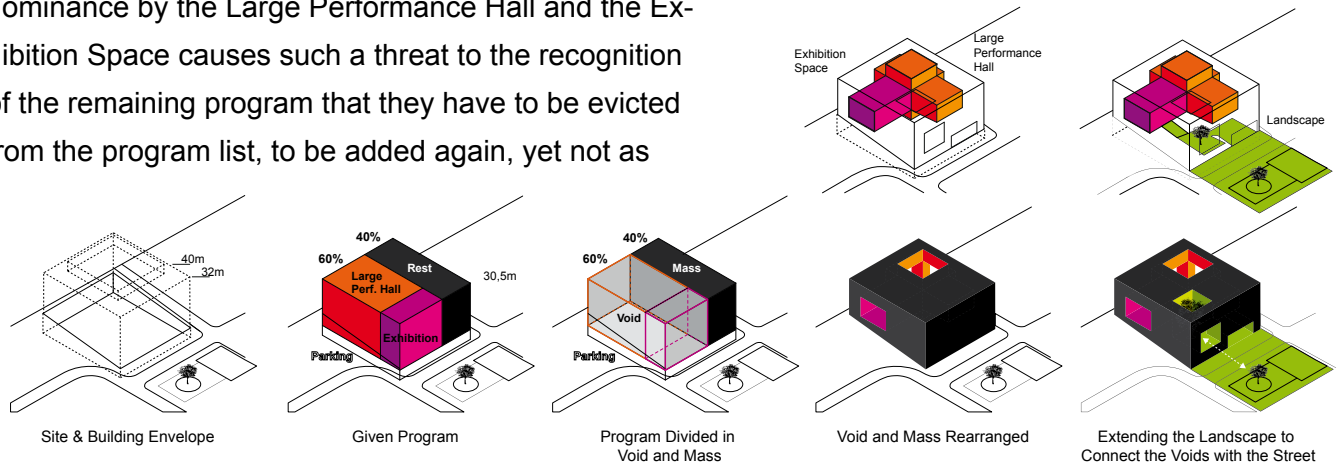


House of Arts & Culture (HAC), Beirut

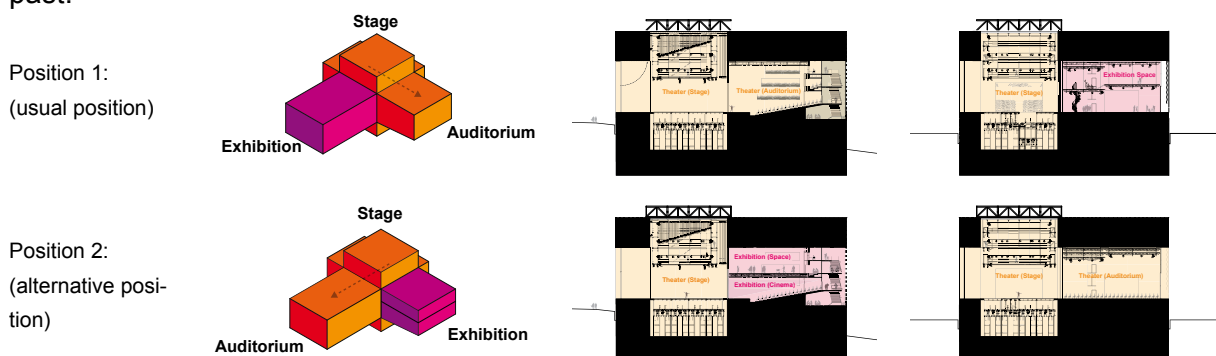
Beirut's "House of Arts and Culture" encompasses the main ingredients of artistic and cultural activities. The dimensions of the spaces adjunctive to these activities do not reflect their importance; e.g. the 30m² Sound Studio is not less valuable for the Lebanese culture than the Performance Hall with over 1000m². However in the case of HAC Beirut there is a lurking imbalance through the fact that the theater and exhibition function cover 60% of the total above ground building volume. This extraordinary spatial dominance by the Large Performance Hall and the Exhibition Space causes such a threat to the recognition of the remaining program that they have to be evicted from the program list, to be added again, yet not as



building mass, but as programmatic voids. By doing this, the dominance of the Large Performance Hall and the Exhibition is tamed and what was before described as remaining program is now mastering the buildings shape, by representing 80% of its envelop.

To open up the created void to the public and unite it physically with the surrounding, the square to the north of the building gets extended as a Landscape leading from the main entrance up till it reaches the Exhibition Space. Along this Landscape a void is excavated from the mass which culminates in the Lebanese Garden, an elevated square with a tree in its midst as a sibling from the tree on the existing square in front of the building. The wood (inside) and natural stone (outside) covered Landscape picks the visitors up at the street level and guides them to all functions and services of HAC Beirut.

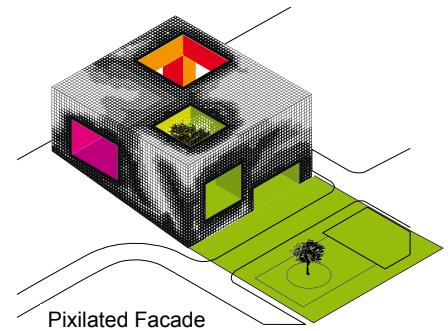
Arts and Culture are fluid terms that develop and change constantly while their importance for our society remains rock-solid. The House of Arts and Culture in Beirut is oscillating between similar extremums with parts of the program unaltered throughout centuries while at the same time all contemporary and future forms of art should find no constraints whatsoever. Heading for the future should not mean to unload the past.



The key to the generic can paradoxically be found in the most specific part of the program, the Large Performance Hall. By utilizing the machine character of the theater and applying it to the rest of the void program, this emptiness is turned into a space-factory for Arts and Culture where functions can be changed or swooped within minutes.

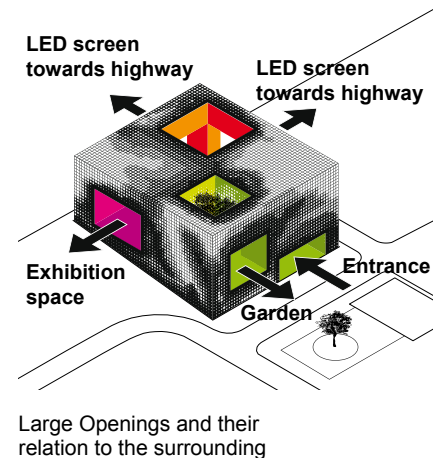
The exhibition volume is roughly the same size as the auditorium of the Large Performance Hall. By placing the Exhibition Space perpendicular to the stage, the two functions become perfectly interchangeable by only moving one sliding door. By means of height adjustable floors the auditorium can be transformed into an exhibition space with a cinema and the exhibition space can be adapted to full auditorium height.

The voids are framed by a load bearing concrete skin that is perforated with square openings following the logic of strain and stress as well as the needs of the functions it embraces. The enveloping structure turns into a low-res screen whose pixel-pattern, if viewed from afar comes alive and create a dynamic effect that changes constantly with the incidence of light.



The cut out voids create openings in the concrete mass. It is here, where the visual contact with the surrounding is made and if one would call the pixels the pores, these holes are the eyes and the mouth of the building.

The openings to the south and west are designed as photovoltaic LED screens where video productions of HAC Beirut, live performances or commercials can be broadcasted. At night when the house is closed, the entrance gate transforms into a screen where movies or commercials can be projected on to. The opening of the exhibition space is a huge split window that can be lifted up to open the space to the outside. A retractable sunshade and a retractable curtain in front of it, allows for sun shading and darkening of the room.



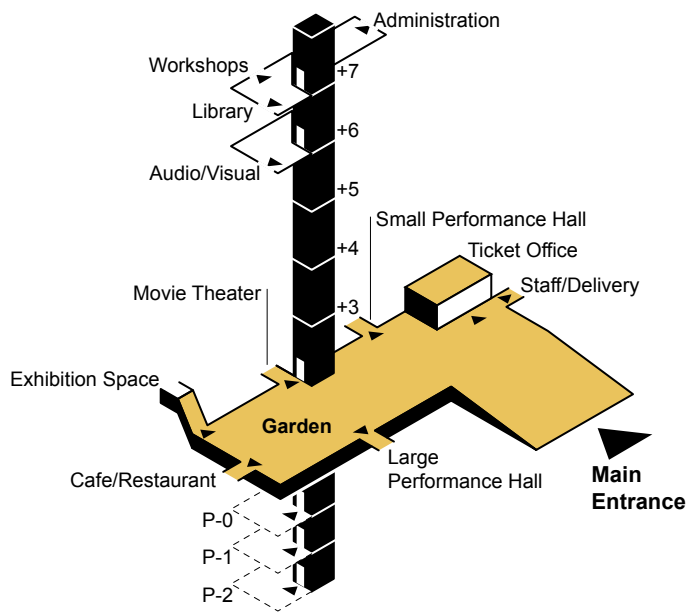
The Lebanese Garden has an uncovered opening to the sky as well as to the adjacent square which both frame and celebrate the Lebanese Cedar tree in its midst.

The wall of the backstage which appears as LED screen from the outside can be folded away so that the highway and the city scenery can function as backdrop for performances or conferences.

Functional and spatial organization

HAC Beirut can be everything anytime. It's a cinema, a library, a theater, a museum, an office, a shop, etc. The interchangeable character of Large Performance Hall and Exhibition Space is facilitated by height adjustable floors (ceilings) and a sliding wall that separates the stage from the exhibition space. Additional floors "stored" at the ceiling of the Exhibition Space allow a quick increase in surface which results in a variety of total exhibition surface between 500 m² and 1.700 m².

The Large Performance Hall and Exhibition Space, the two main volumes of the building, are designed as machine that can adapt easily to their specific uses, swop their function and function together as one continuous space of over 3.000 m².



If the entire surface of Exhibition Space and Large Performance Hall is used as one, the Landscape with the Lebanese Garden allows a full loop throughout the building. In any event, the Landscape functions as the distributor of the building. All front doors are leading onto the Landscape which supports all functions of HAC Beirut equally.

At first, right next to the ticket office, one encounters the Small Multimedia Hall and the Movie Theater with the Cinematheque next to it. Taking the elevator one immediately enters the Documentation Center and the Workshop areas. Walking up the stairs to the Lebanese Garden one finds the entrances to the Exhibition Hall, Large Performance Hall and Cafete-

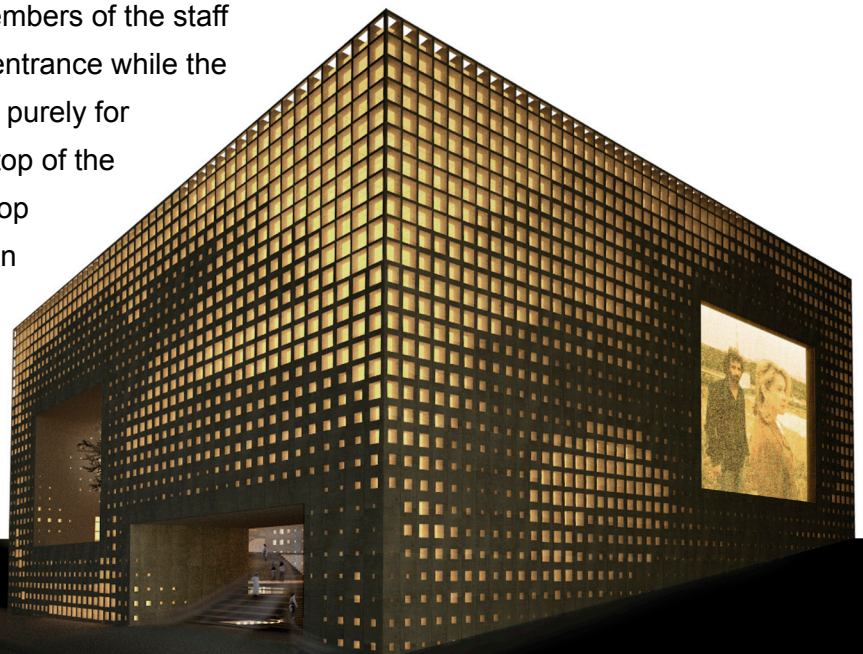
ria. The Lebanese Garden functions as hall, foyer, terrace and public square. Since the Landscape in the building is an extension of the square in front, it is considered as public space where everybody can walk in without restraint. Tickets only need to be shown at the entrance of the particular spaces.

The main entrance which faces the square in the north of the building can be transformed into a movie theater; the small tribune can be expended by additional chairs.

The “mass” carries the supporting functions for the adjacent void program and houses around the garden at its higher levels the documentation center with the library. The top level that encompasses the entire footprint of the building is a rooftop medina consisting out of individual rooms, covered by the windowless pixilated concrete hull.

The highway- side (south side) of the building is mainly dedicated to the support program for performance and exhibition functions. Members of the staff can enter the building via the main entrance while the service entrance on the west side is purely for delivery. The rooftop medina at the top of the building houses, beside the Workshop and Library space, the Administration of HAC Beirut.

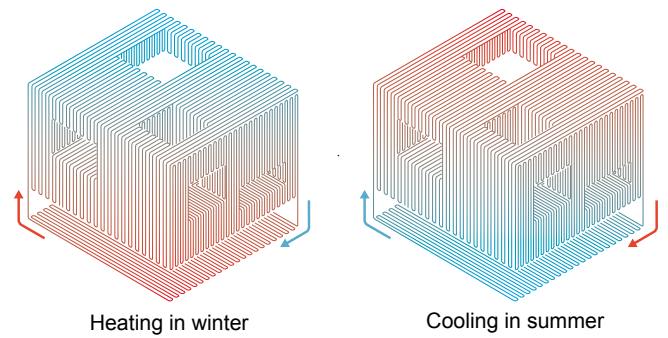
The entrance to the 2½ level underground parking is on the east-side, allowing a smooth access and exit from Rue Mar Mansour.



Night view towards the main entrance

Technical solutions

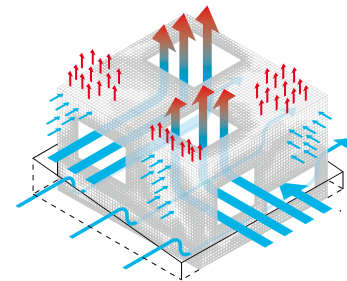
Cooling: Through its integrated concrete core activation the entire concrete skin functions as giant heat exchanger. Peak temperatures get leveled out and the hot water gets cooled under the parking garage in summer while in winter it's the reverse and the water gets warmed up by the warm ground with the help of a heat exchanger.



Sun shading: The depth of the concrete wall combined with the size of the openings, ensure perfect shading of all pixel windows. Large openings like the Exhibition Space window have retractable sun shades. The rooftop medina is shaded by a windowless pixel grid and by sun shades of the individual rooms.

Water collection: The rainwater of the roof gets collected and filtered through the Lebanese Garden and finally stored in an underground water tank to be used when necessary for watering the buildings and the surrounding trees and park landscape.

Ventilation: The large windows funnel air on a big scale throughout the building, which ensures a good ventilation of this rather deep building block. The pixel windows are equipped with ventilation grills and allow convenient ventilation of the individual rooms.



Large and small scale ventilation

Height adjustable floors: The height adjustable floors are balanced by counter weights to ensure a minimum of energy for their adjustment.

Acoustics: The height adjustable floor in the Large Performance Hall has an additional function as acoustic plate. By repositioning this second sky, the room volume can be perfectly adjusted to the amount of visitors resp. the acoustic requirements. The same accounts for the Exhibition Space if used for performances. The acoustic treatment of the Small Performance Hall and the Movie Theater is provided by the material of its enclosing walls and ceiling.

Load Bearing Structure: The envelope and the main structures of the building are from concrete. The big distances in the Large Performance Hall and the Exhibition Space are spanned by steel trusses. Between level +7 and Level +6 a two meter high construction floor is inserted to manage the coverage of the Large Performance Hall and the Exhibition Space.

Pixels: The entire building is based on a 110*110cm grid. The pixels, openings within this grid, are designed in 7 sizes from 0cm to a maximum opening of 95*95cm. If LED lighting would be applied to all of the pixels, the building could function as three dimensional computer screen.

