#### Transparency through Monumentality -Five Big Rocks-



#### [CONCEPT & URBAN STRATEGY]

#### -Inspiration from the rich Lebanese historical heritage- Transparency through Monumentality

Our proposal for the House of Arts & Culture is a composition of five megalithic rocks inspired by some of the gigantic scale of rocks and architecture echoing the rich history of Lebanon. Touching our deepest collective memory, and perceived in a nostalgic sort of déjà-vu, this proposal aims to transcend space and time. The spaces they created under or in between it always contrasted in a dramatic effect of lightness. This effect of lightness leads to an abstract impression of transparency: In fact the bigger these rocks are, the more lightness, transparency and monumentality it will radiate from the spaces in between.

#### - Composition in Rocks and their Voids

The structure will be composed of five massive rocks, each one it assigned with a definite function: 1)the big performance rock, 2)the exhibition rock, 3)the workshop-library rock, 4)the performance rock, and the 5)small performance rock. These rocks will be stacked in a natural like composition, and the created spaces

in between will be act as social plazas, "platforms" and multifunctional spaces: used for circulation purposes and amenity zones they will also accommodate the House of Arts & Culture with various events and activities. These rocks will be cut in various angles, creating various slopes inside the volume and offering various spatial experiences.

#### [DISTRIBUTION OF FUNCTIONS]

Two wide slopes connect like a bridge the two different levels between downtown Beirut and *L'Avenue Du General Fouad*. This slopes working as artificial levels along the natural topographic slope, will allow a 360 degree access to the building. Moreover these slopes will create a link with the entrance hall and direct the flow of people to the audience hall foyer and restaurant. The Big Performance Rock located halfway through the underground level for functional reasons such as easy accessibility of audience and performers, and facilitation of delivery of the theatrical equipment. The Exhibition rock and the small Performance rocks will be stacked one over the other over the big performance hall in order to share the same staff elevators. The Workshop/Library/Documentation rock will also located over the big performance stone besides the exhibition hall so that they can share same platform (i.e. roof of the big performance hall) as an extra work space or an extra exhibition space. Conference halls will be located over the

Workshop/Library/Documentation rock besides the small performance hall in order to share the same platform (i.e. roof of exhibition stone and workshop/library stone) as a part of foyer and bar with a panoramic view. The management section will be located on the first floor so that the created slope (i.e. ground level) stays as free as possible. Cafeteria will be also located on the ground slope level and will share its kitchen with the butlery of the big performance theater. At the underground level, the adjoining rooms used by the performers will be located as well as the orchestra pit and the technical rooms.

#### [CIRCULATION]



Fig. circulation in one stroke

Four Escalators and six elevators will penetrate the stones elements and reach to the different platforms offering easy access to the next rock. These escalators will create a looping system within the project, enabling the approach to all of the stones elements in one stroke without the use of the same escalator twice.

# [SURFACE PATTERN]

### - Thousands of Bubbles-

Each stone element will have thousands of small holes on its surface, these openings acting as a new arabesque and openings for natural lighting. These multitudes of holes are an echo of the small bubbles we can find in ice cube or even on the stratum layer of stone.

## [STRUCTURE]

## - Monocoque Structure and Steel plate sandwiching

Each rock will be composed of an organic surface acting as a natural brace. This natural brace will make of each rock one *monocoque* entity light in structure. Envelope of each stone will work as a main structure with honeycomb sandwiched two steel sheets texture.



## -Elevator shafts and escalator Shafts as Sub Structure

-The elevators and escalators will reinforce the stone elements and will work as a sub-structure.

### - Fuzzy Boundary of the Voronoi Cells

The five huge megalithic rocks will be stacked over each other in a careful way avoiding any rigid grid and geometric composition. Grouped all together, they will form a natural organic composition. However, as a structural strategy, this megalithic composition should possess its own hidden logic. Structurally, these five stones are interpreted as volumes derived from one Voronoi diagram with fuzzy boundary.

### - Structure of Delaunay Triangulation

Each of the five stone elements will keep triangular link points with the other stones; this structural property is derived from the Delaunay triangulation. The Delaunay Triangulation is the geometric dual of the Voronoi Diagram. The structural matching of Voronoi and Delaunay is hence mathematically correct.

## [THEATER ENGINEERING]

### -Opera oriented theater and flexible stage Area

The Big performance theater is designed as an opera oriented theater. Because of limited footprint, the theater will have an asymmetric side stage like the one we can see at the Royal Opera House in London, offering multiple possibilities. With the flexible stage area and with extra seats, the main stage can be turned into thrust stage.



Fig. Night View of the

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