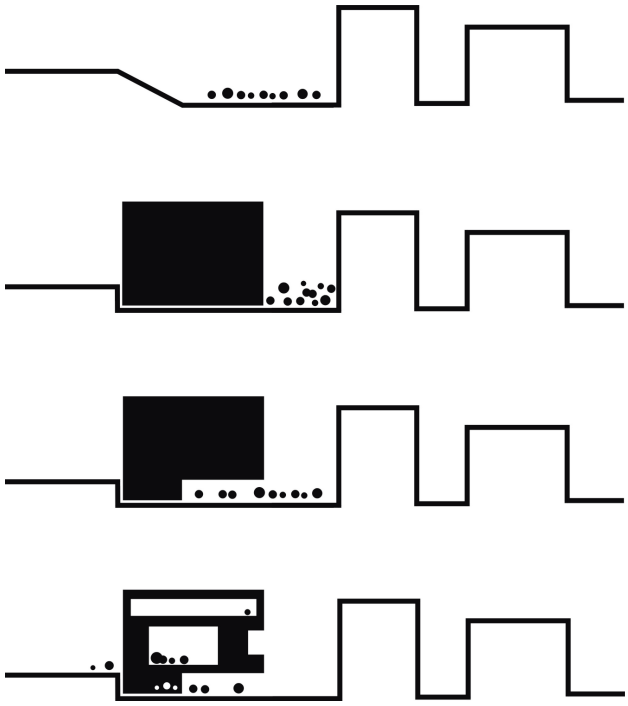
HOUSE OF ARTS AND CULTURE
BEIRUT, LEBANON
AN INTERNATIONAL ARCHITECTURE COMPETITION

The architecture, the construction and technical building equipment form together an intelligent and sustainable building concept.

1. Urban context and Architecture

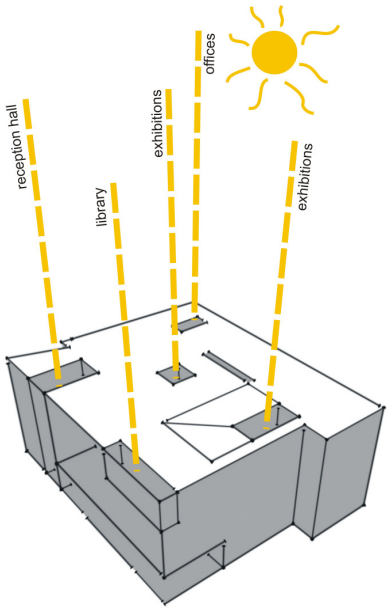


The designed House of Arts and Culture will be strongly connected with the surrounding buildings proposed in the masterplan for the new center of Beirut. It will work as 'a bridge' between the city center and the part of the city on the other side of the Avenue General du Fouad Chehab. The main entrance to the building is created on the north-east corner of the site which is expected to be the place of the main concentration of pedestrian flow from the city. That's why we've also created a form of a public square which is necessary for the proper functioning of the building of this kind. It has a form of a ramp that introduces people into the building making them feel outside and inside at the same time. Concernig the climate and the location of the site we decided to open the building to the north, offering interesting views and avoiding overheating of the building.

We propose ventilated stone facade with elments of a modern transformation of traditional arabesque typical for this region. In this simple way the House is not very dominating but distinguishing and noble.

2. Function and zoning

The building meets the requirements of the spatial organigram of the centre. The main functions are designed as independent boxes freely located in the volume of the building. The space between it is opened and thought as not only communication but mainly as a space of interaction between people and art. To make it more attractive we introduced daylight coming from the roof and playing very important role in the interior atmosphere.

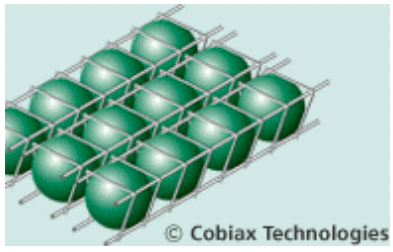


The Houes is hadicapped friendly, its communication has no architectural borders, easy acces to special restrooms and parking places is guaranteed.

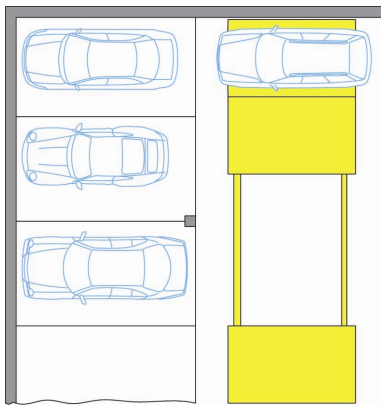
3. Construction

The building is constructed with an optimum degree of solid construction, insulation and with a limited window area.

The building is constructed in a combination of elements made of steel and reinforced concrete. A special technology for the ceiling is used to optimize the construction and grid.
Flat slab, long span solutions can be achieved by reduction in mass without reduction in load bearing capacity.



The underground parking gets additional a moving platforms for independent parking in rows behind each other and reduces the consumption of usable space.

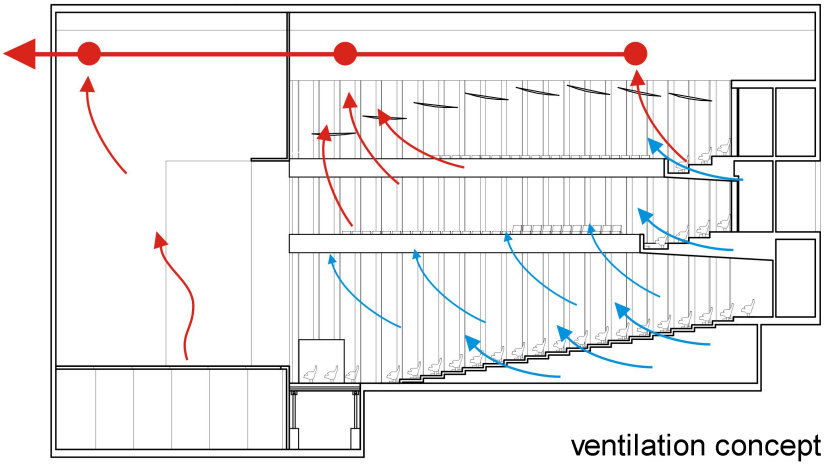


4. Energy concept

The building can be operated with intelligent building services in economic and ecological way - cooling and heating the building under use of natural resources.
The building concept does not allow direct solar radiation and keeps down the preheating and meets the demand for low-cost, energysaving cooling technology.

The energetic concept plans groundwater drillings. Heating and cooling energy are withdrawed from the ground, which becomes active over earth piles as seasonal memory. The always equivalent cold and/or warm water is led by the tubes which are located in the concrete ceiling and particular walls.
The heat difference can be used for cooling in the summer season and heating in the winter season. The high thermal mass operates as storage of heat and cold.

Thermal regulation via concrete core as the basic means of heating and cooling, combined with a mechanical ventilation, like e.g. in the performance hall over the air-handling system. Further during the hot summer night an additional controlled ventilation chills the concrete core.

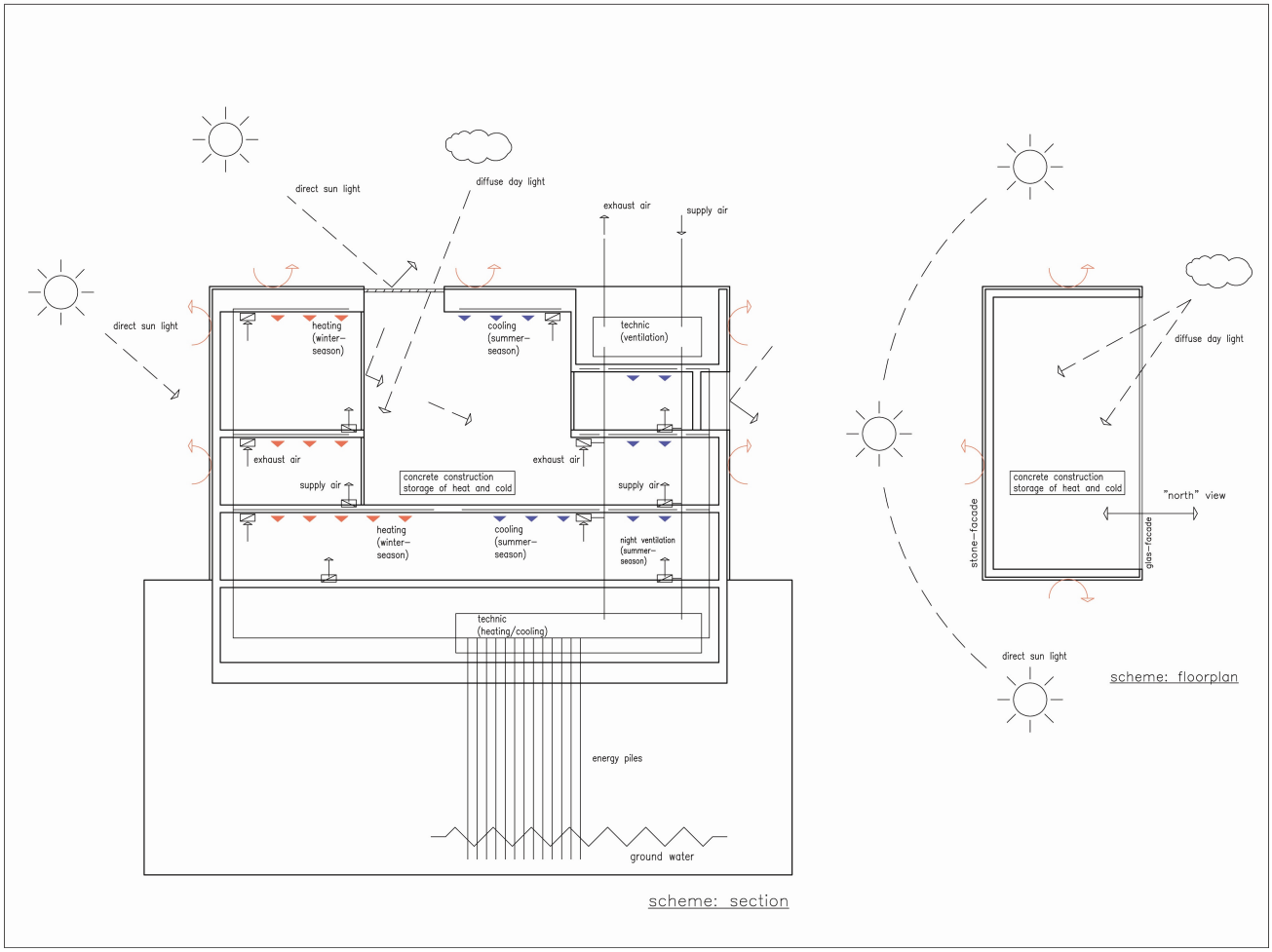


ventilation concept

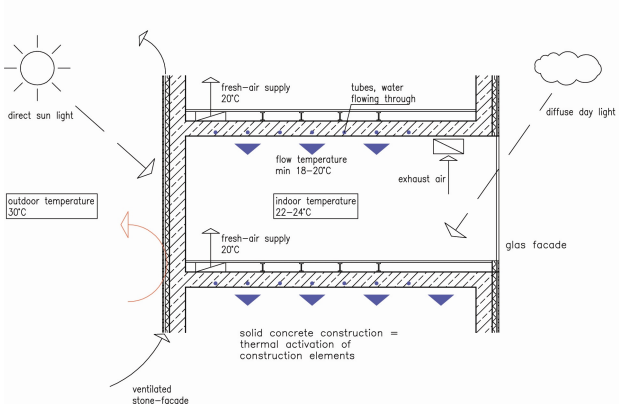
The controlled air exhaust with heat recovery makes further energy conservation possible. The supply air (cooled and dehumidified supply air) is carried out over double floor and stands in the performance hall. The air-handling system receives heating, cool and dehumidifying functions.

A glas façade is aligned to the north and opens for the diffuse light. Roof openings receive special prism to reflect the direct solar radiation and not to disturb the exhibition.

energy concept



cooling



heating