

Explanatory memorandum

Letter of explanation

The appearance and atmosphere of Beirut-city reflects its heterogeneity. There is a stratification of various periods of previous cultures, social- and economic-systems and their architectural forms of expression.

The design for the new House of Arts and Culture in the historical centre of the city is considerably determined by its location.

The term of “place” does not simply refer to its topographic and physical constitution; it has to be expanded to get a cultural dimension. The term does not only include history, attitudes and the thought patterns of the residents of Beirut. The new House of Arts and Culture gets into a dialog with the background that this context provides. In addition the new building must conform to the special characteristics as well as the cramped situation of the site.

As a cornerstone of culture, it has to be a place of meeting and exchange for a large number of Lebanese and guests.

The remarkable location of the competition area at the border of the Ghalghoul District – in between office and business buildings on one side and residential areas on the other side – poses specific parameters. The situation is enhanced by the immediate vicinity of the historical Old Town and the short distance to the seaport.

The new building of the House of Arts and Culture in Beirut is integrated into the city. In the longer run it will be even more connected into the city system and it will strongly affect the appearance of the historical quarters.

The quality of urban space depends on the relationship of its corpus of buildings to its free space. Ideally, the city is not an assortment of buildings without any connection to one another, but rather a unity of building volumes interwoven with exterior spaces. In this context ,facades are shaping the face of the free space and therefore the cityscape in its whole.

Facades are designed in the area of tension between interior and exterior space and affect as bearers of cultural meaning.

The facade design arises through altercation with specifics that are adapted to regional and cultural conditions and bears to the creation of identity.

The new building for Arts and Culture conforms to conditions posed by the city architecture; it does not separate but join.

The public space is linked to the interior space and creates a continuous room- sequence up to the roof garden.

From the square located in the north you reach the foyer. In the foyer you find the main exploitation, the reception desk, the shop, the movie theatre and the technical infrastructure. Beyond the escalators you reach the upper foyer level which is direct connected with the large and the small performance hall. On this level you can find an other entrance that can be reached from the ring road.

In the south part, at the ring road the new building steps behind the future building line, to create a small vestibule used as a reflecting-pool. You reach the entrance by crossing a small bridge. This gesture points out the particular relevance of the new house as a public building.

The second entrance shows that there should be no privileged direction to one of the districts. The house should unify all the different directions coming out of the city.

The new building also conforms to the height limits of the neighbourhood and the stated construction space.

In the upper levels further functions are arranged. Beyond the library level, the workshop level and the exhibition level you reach the cafeteria and the roof garden on top of the building. This area should be used for relaxation and recreation. Trees are give shade and a little fountain generates a pleasurable microclimate.

All levels are designed as free spaces of artistic expression with no boundaries. Open spaces and galleries create vertical connections.

The exhibition level is equipped with an additional daylight-ceiling for special exhibitions.

Except the exhibition level all other levels are steeped by the great performance hall. It generates the core inside the building. It is created as a house in house concept to meet the of acoustic requirements. Over all, the hall provides 800 seat in the parquet and on the two balconies. Because of its optimal size and his its technical equipment the great performance hall can be used for all different kind of events. The small performance hall “black box” is constructed as a modular space and primarily dedicated to experimental performances and activities. Both halls are connected by a common foyer and an open lounge area.

The technical infrastructure, the delivery zone and the parking area are located in the basements.

When designing a façade, the point is to get involved in the circumstances of the given case, to take up conventions, and to develop an architectural idiom.

The useful life of buildings is not simply a question of technical quality. It's a question of social and cultural dimension as well. The façade represents the part of the building that manifests its character in urban space. The construction of the façade with different layers is also a synonym for the complexity of sociocultural influences. Different patterns overlies themselves and create shape and form.

In technical terms, the shell of a building is a climatic boundary that is subject just as much to the physical requirements of construction – the interior temperature, humidity and ventilation – as to the users desire for comfort and optimal lighting.

Because of its open, geometric structure different layers arise into the depth. New impressions and images are generated by alternating light scenarios. During the night the new House of Arts and Culture equals an “illuminate lampion” in the city.

The shell of the building is organized in different layers. Each layer fulfils a different aspect such as technical- and design aspects. The outer layers are responsible for the incidence of daylight. The inner layer is used as a thermal insulation between inside and outside. The result is an open space between different layers. The buffer avoids an overheating of the building during summertime and although allows daylight in the interior spaces.

Conclusion:

Our design for the new House of Arts and Culture shows in its composition – from the ground plot up into the particular objects – a formal clarity in space and material. The building creates a new urbanistic context, connects and emphasizes the significance of the place.

Sustainability

Goals

A highly efficient building doesn't just require low energy consumption for operation – flexibility, ensuring the continuous utilization in the long term, is a prerequisite for sustainability. High indoor environmental quality in combination with minimized energy consumption and a highly flexible layout provides a truly sustainable approach.

Measures

The climate concept is derived from principles of indigenous architecture applied in a new interpretation. The conditioning of the building, i.e. heating and cooling is achieved by activating the thermal mass of the structure. Pre-cooling of the structure by flushing the building during night-time hours provides cooling during the day. Additional activation of the thermal mass is accomplished by circulating water through pipes embedded in the concrete. This system is also used for heating. The very low temperature differences required for such a system create the opportunity for both minimized energy consumption and optimized comfort.

Principles

Theatre, Cinema, Exhibition Space

Ventilated mechanically, displacement ventilation as the principle with the highest comfort level and highest efficiency

Shell

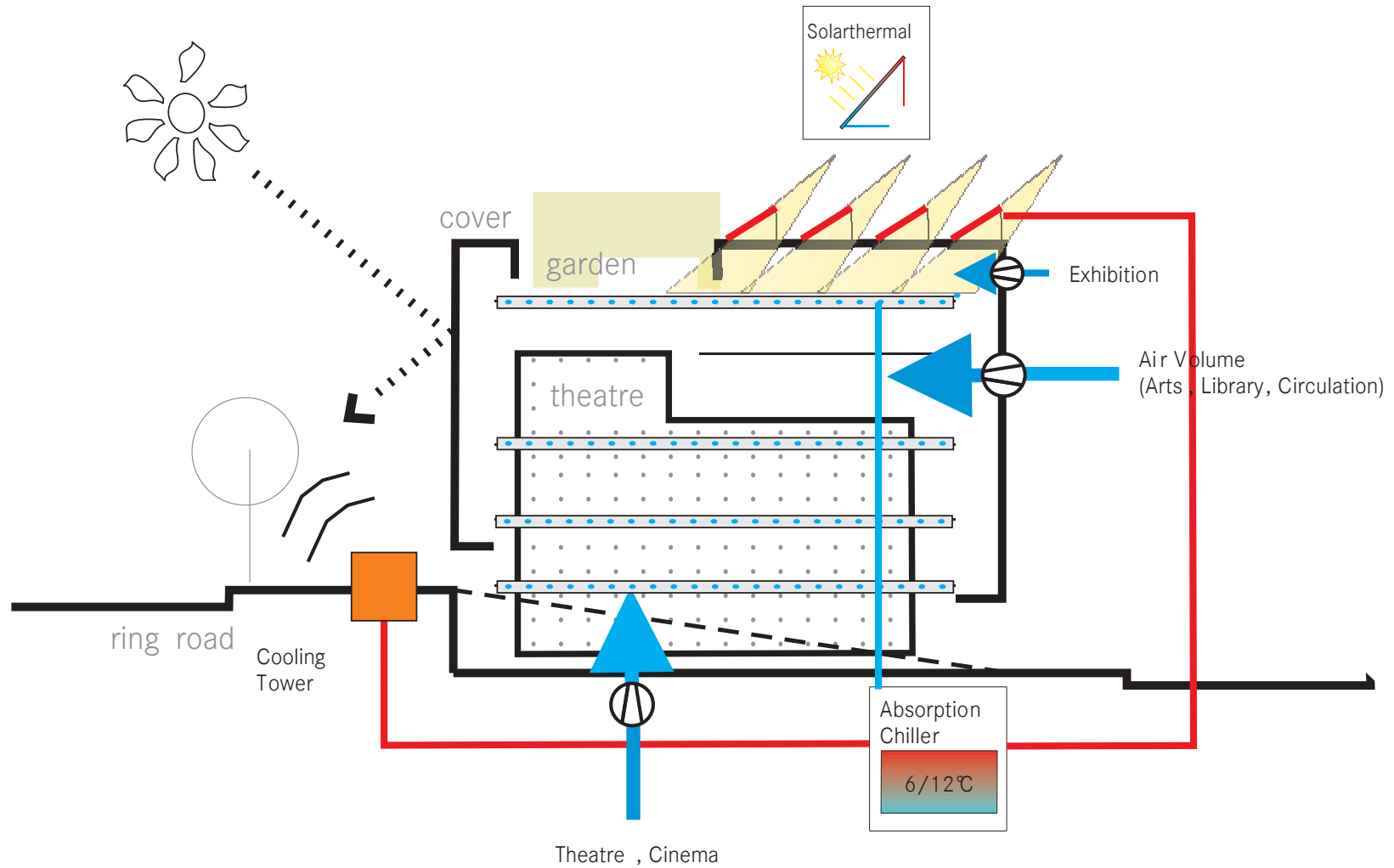
The exterior shell provides shading and filters daylight to the appropriate level. It provides natural ventilation most of the year, making indoor nearly equivalent to an optimized, shaded outdoor space. During extreme outdoor conditions (high temperature or humidity), fresh air is supplied mechanically.

Energy Supply

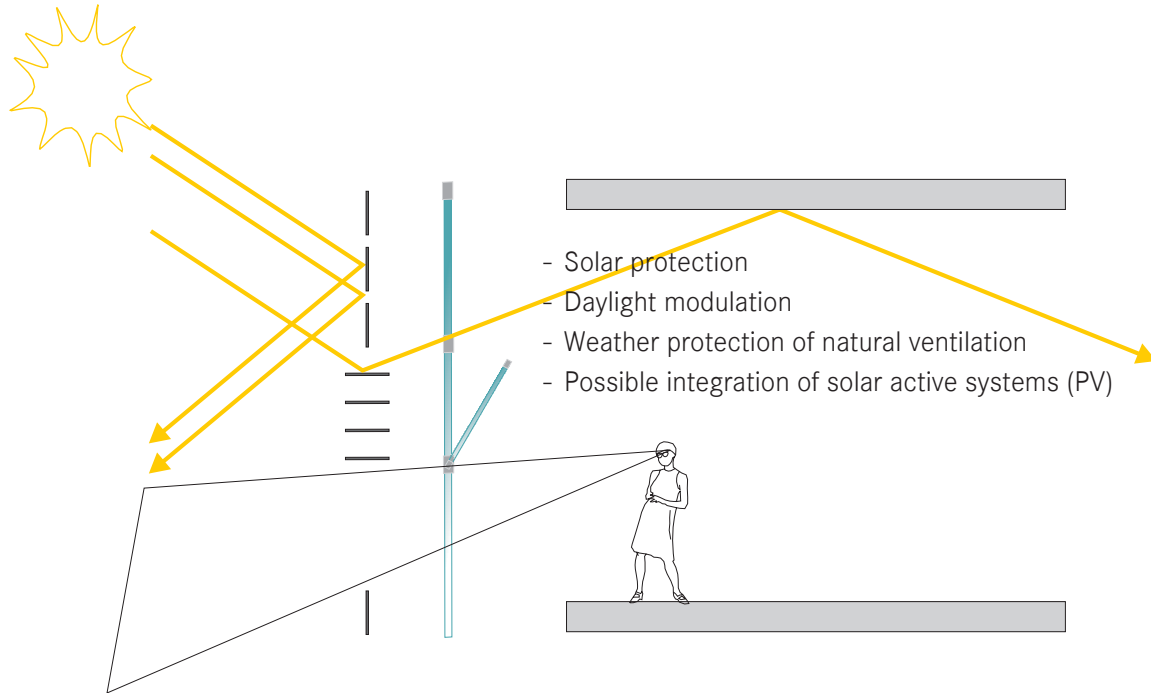
When assessing the site potential for the use of renewable energy sources, the high solar insolation clearly demands active solar applications. Using an absorption chiller, heat is transformed into cooling capacity, maximizing the benefits of the coincidence of solar irradiation and cooling demand. The solar thermal collectors serving the chiller also handle the energy demand for heating and hot water.

Sustainability and building performance is not considered as an add-on. The entire building design provides adequate and tailored qualities for the different program areas of the building. The building shape and cladding reflect this purpose. High performance is achieved by the passive and active application of natural sources supplemented with highly efficient equipment.

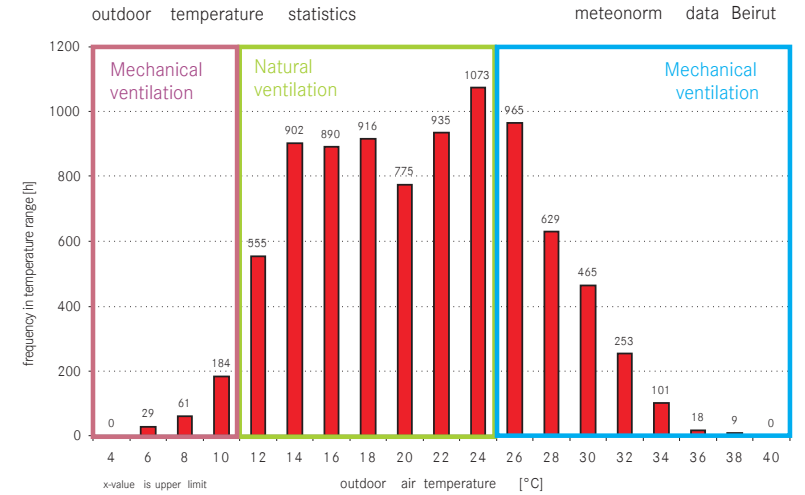
Summer



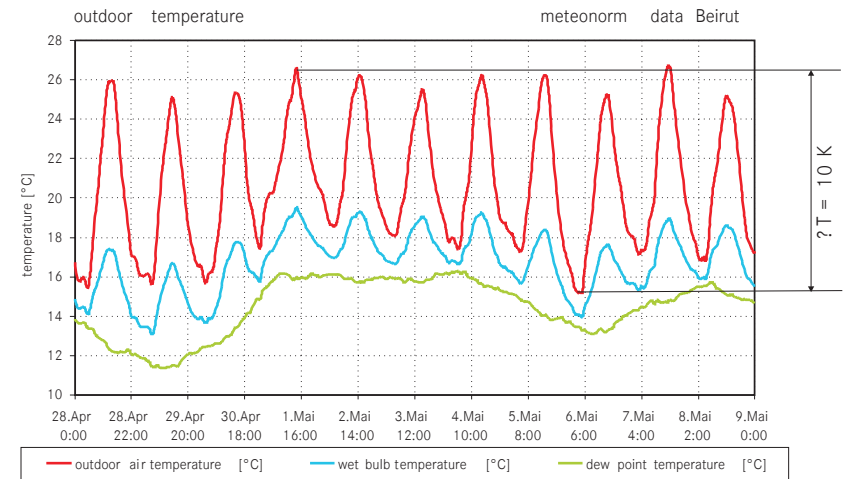
Facade Screen



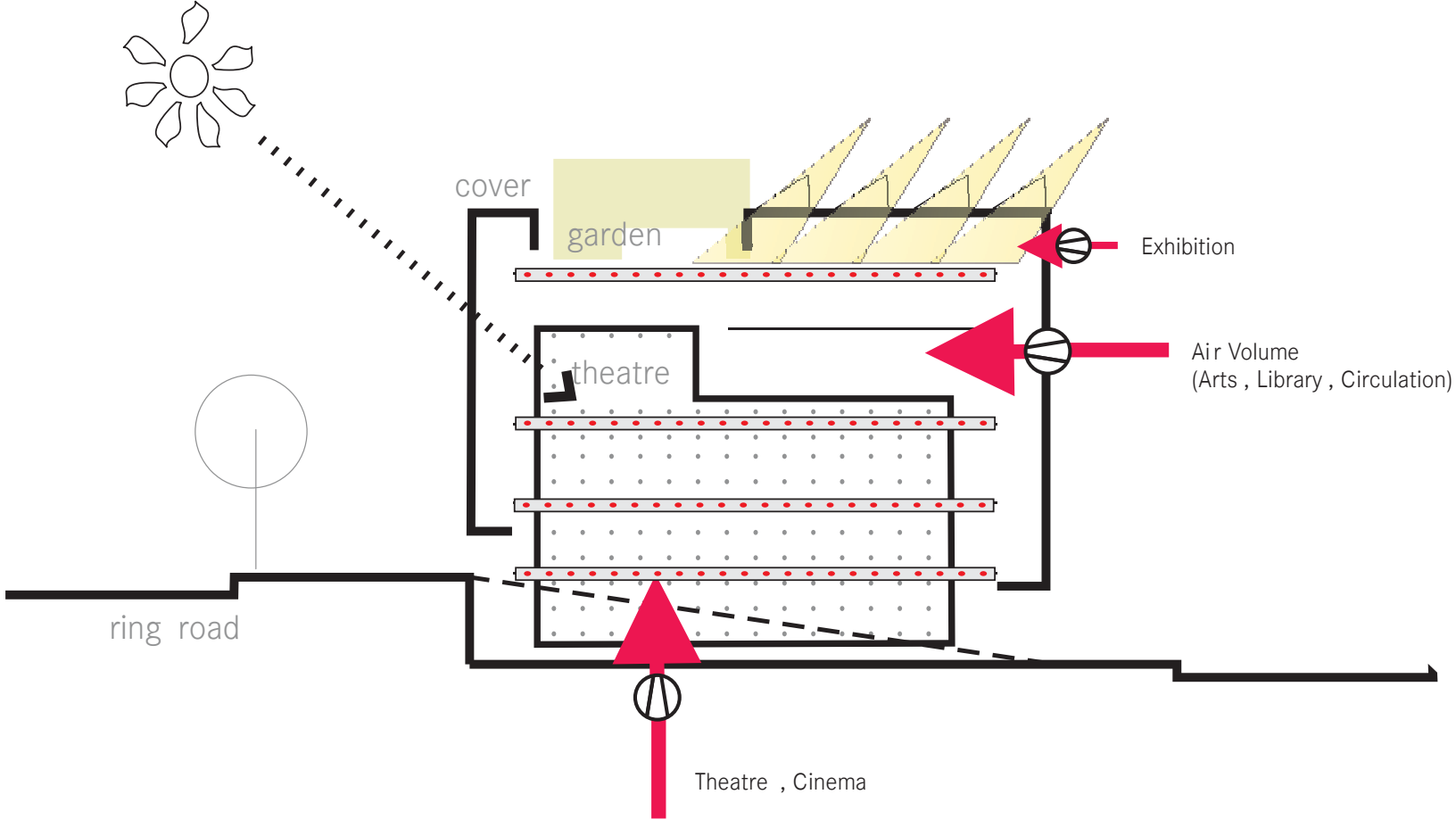
Natural ventilation potential



Potential for nighttime cooling by natural ventilation



Winter



Spring/Autumn

