LEGISLATIVE ASSEMBLY
CHANDIGARH, INDIA

ARCHITECT
Le Corbusier

TYPE OF PROJECT
State Legislature Building

DATE COMPLETED
1956 - complex began to take form
1961 - Assembly was completed
1962 - Assembly was dedicated

DESIGN CONCEPTS

"The governing function in modern India represents, not an activity to be taken for granted, but a goal attained only through years of struggle. It might be wholly appropriate, therefore, that this center be a place where state functions were not merely housed but celebrated and where architectural statement could be created strong enough to embody a sense of power and permanence, of seriousness and exaltation" (Evenson 71).

Le Corbusier conceived the master plan of Chandigarh (the city) as analogous to a human body, with a clearly defined head (the Capitol Complex). The rest of the city is divided into 4 zones: political, industrial, commercial, and educational.

Each one of the four buildings in the Capitol was meant to complement each other to form a whole. They are linked by footpaths, bridges, pools, and paved esplanades.
TRANSFORMING THE PAST

Le Corbusier acknowledged India's spiritual and artistic traditions without lapsing into superficial imitation or ornamentalism. It was a question of probing Indian culture to its roots, its deeper pattern of myth and meaning, then transforming the substructures into modern symbolic forms.

Chandigarh: the secretariat, the assembly building, the civic center”. Architectural Design Feb. 1961: 60-63.
Conceptionally, the building was designed as a “horizontal rectilinear structure, square in plan” with a monumental front portico. On an urban level, the portico sets up a dialogue with the corresponding entrance to the Justice Palace on axis with the Assembly across the main plaza.

**SEPARATE PATTERNS OF USE**

- Le Corbusier has provided the principal users of the building: the legislators, the office workers, the press and the visiting public each with their own system of entrances, lobbies, and stairs, thus ensuring their separation from one another.

"Symbolically the assembly represents a coming together of citizens. In practice, however, the building seems an elaborately contrived means of keeping them separated" (Evenson 82).
"In the assembly building, in its intricate system of use, one may find an attempt to provide for the complexities and conflicts, the controversy and excitement by which the law itself is made" (book pg).

"ARCHITECTURE WITHIN ARCHITECTURE"

Le Corbusier's main concept for the design of the assembly came out of his desire to establish a set of relationships across space between symbolic elements.

- His architecture here is not restricted to an entrance, nor to a facade but to the functions of the program and to the very space within the building itself.

- The two legislative chambers, the curvilinear assembly hall and the pyramidal governor's council, were designed as freestanding structural forms enclosed within a rectilinear shell.

- The legislative chambers lie within an enclosed interior space, the forum, which is bounded on three sides by 4 story office blocks. The forum was designed not only as a circulation area for the various building users, but also as a space for the delegates to hold informal meetings and discussions.

Interior Views of the Forum
Ramp leading up to the Governor's council
Walkways serving office blocks

1. Forum
2. Assembly
3. Governor's Council
4. Offices
ARCHITECT/PROJECT INTENTIONS

SILHOUETTE AGAINST THE SKY AND THE MOUNTAINS

Le Corbusier attempted to combine a public iconography with an abstraction permitting several layers of reading and a formal presence. This forms a dialogue with multiple relationships to other "objects" against the sky.

"The real impact of the complex lies rather in the relation of building masses to one another and to the distant mountains" (Evenson 71).

"Thus, the buildings (secretariat and assembly), while defining the space create both a fluid balance throughout the complex and constant references both forward to the mountains and back to the town" (Evenson 72).

BREAKING THROUGH THE ROOFLINE

The upper portion of the assembly chamber (contained within the hyperboloid) and the pyramidal skylight of the governor’s council, were allowed to extend beyond the roofline. Thus, breaking the silhouette of the building and adding sculptural elements to the roofline which then play against the jagged forms of the surrounding mountains. Additionally, a small maintenance tower with access bridge was added in order to service the skylight atop the assembly chamber.
UNITED IN CONCRETE

One single material is employed: naked Reinforced Concrete. Concrete was chosen because it was cost effective (labor was cheap), it establishes bold forms sensitive to light and shade, and it gives the building an "ancient quality".

Small bas-reliefs of animals, abstract designs, and the modulor figure are found in the concrete columns of the portico and other wall surfaces.

"It is said that during the construction of the secretariat, the small boys whose task was to lead the donkeys up and down the ramp used to amuse themselves by drawing pictures on the newly finished concrete surfaces. Le Corbusier, seeing some of these and being delighted by them... later (conceived) the idea of making such decorations an integral part of the concrete surface of the assembly" (Evenson 81).

SYMBOLIC FORMS

The portico of the building was meant to resemble a section of an aqueduct resting on its supports, while the hyperboloid assembly chamber reflects the shape of an industrial cooling tower.

The 3 offices facades, which form the base of the stage, are kept simple in order to see the contrast with the rest of the building.

OBJECTS SURROUNDED BY VOID

The central portion of the building, the Forum, acts as a void surrounding the 2 assembly chambers and enclosed by the office blocks.

Due to India's lack of modern resources, the construction process was very labor intensive. Women carried baskets of concrete on their heads which were then dumped into the formwork.
PROTECTING THE BUILDING FROM HARSH SUNLIGHT

- Vertical concrete fins (brise-soleil) are used to shade the interior of the 3 office buildings. In contrast, the 2 assembly chambers are lit with skylights (sidelighting vs. toplighting).

- The roof of the hyperboloid is penetrated by 3 openings which are meant to let direct light in on particular days (equinox, solstice). There is also some artificial lighting equipment in the top portion.

- The Forum is meant to be a dark, artificially lit hall leading to the bright and colorful assembly chambers.

NATURALLY VENTILATED

- There is no central heating or air conditioning in any of the buildings.

- Cross-ventilation is created by the portico, with its inverted shell “the Paraso!”, an overhanging protective roof held up on slender supports, providing shade and protection from sun and rain.

- The pools of water and landscaping help to cool the interior.

- The upper part of the hyperboloid does contain some ventilating equipment.

- Despite Le Corbusier’s efforts, the building is ill-ventilated. The concrete absorbs and retains heat, leaving the offices and court rooms hot in the summer and cold in the winter. He also did not master the climate in terms of the hot breezes and monsoons.

ARE LE CORBUSIER’S EFFORTS AT SUSTAINABLE DESIGN NOTHING MORE THAN VISUAL AESTHETICS?

“...It has become evident that many of Le Corbusier’s ideas don’t work. For instance, the sun breakers: they are really great dust-catching, pigeon-infested contrivances, which gather heat all day and then radiate it back into the building all night, causing indescribable anguish to the occupants. Neither have the great parasol roofs...proved much more useful. Was Le Corbusier perhaps more concerned with the visual expression of climate control than with its actual effectiveness? In any event, his enthusiasm seemed to lie not in solving the problem but in making the theatrical gesture – assuming the heroic pose – of addressing it” (Brooks 197+).

- The assembly chamber has been termed by one Indian architect “a near impossible Parliament to deliberate in,” and there is no doubt that it was designed primarily as a visually dramatic space and only incidentally as a place of debate. There is virtually no natural light, the only windows being small skylights at the top of the tower, and no natural ventilation, while microphones are necessary for all speakers...Although the intent may have been to dramatize the activities of the legislature, the result becomes a theater in which the actors are overwhelmed by the setting” (Evenson 83).
Hierarchy/Symbolic Elements

Repetitive Elements - Columns/Piers

Shading the building from the harsh sunlight

Privacy Gradient

Public
Private