



by Budi Sukada

Vidhan Bhavan

Bhopal, India



Architect
Charles Correa

Client
State Government of Madhya Pradesh

Design
1982-1984

Completed
1996

I. Introduction

Vidhan Bhavan is a new state assembly for the Madhya Pradesh government in the capital city of Bhopal. It replaces the former building, which is nearby and was initially built during the colonial period as a guest house for the viceroy of India when he visited the city. It is a complete set of integrated facilities that sit on the crest of Arera Hill, which has a panoramic view toward the lake in Bhopal. Located in the area around this hill are important government and public buildings as well as residences of high-ranking government officials and several resort palaces built by Moslem rulers during the Islamic period that have recently been converted into exclusive hotels. As such, the whole area belongs to an elite part of the city.

II. Contextual Information

a. Historical background

Madhya Pradesh is known as India's tribal province, inhabited since the pre-historic period. However, its written history goes back to the Emperor of Ashoka in the 3rd century B.C., who built the famous Buddhist *stupa* at Sanchi. Bhopal, on the other hand, was named after Raja Bhoj. He was a king from the Parmars, who ruled southwest Madhya Pradesh a thousand years later. Between 900 and 1050 A.D., the Chandellas ruled the northeastern part of Madhya Pradesh. Moslem rulers followed, then the British. The independence of India in 1947 finalised the historical background of Bhopal. Hence, there is continuing expansion of the city linking the old part to this new area.

b. Local architectural character

The architectural character of Bhopal corresponds to the history of the city and it is generally divided into two parts. The old part is traditionally Moslem, marked by a continuous block of two-storey buildings in brick or stone that form a gridded configuration of narrow alleys. A wall sits at the outside separating the community from the ruler's quarter where the great mosques, palaces, gardens, and artificial lakes are found. The new part was built immediately after Bhopal became the capital city of Madhya Pradesh State. This part is characterised by blocks of buildings that vary in height for residential, commercial, government, and public use within a defined master plan. Except for the commercial zone, each building occupies a considerable piece of land where gardening is possible. Each zone is separated by greenery and gardens as well as parks and pools. Buildings in this new part are generally made with flat slab construction using local materials for their finishes.

c. Climatic conditions

There are three seasons in the State of Madhya Pradesh:

- Hot season (April–June): Temperature at noon can soar as high as 47°C and the weather is dry and dusty. However, it is cooler in the evening due to its altitude (500 m above sea level) and its great lakes.
- Wet season (July–September): This is the monsoon period with a slightly higher humidity. However, it does not rain all day. Intermittent showers are usually followed by a cool breeze and then the weather becomes dry again.
- Cool season (October–March): The weather during this period is mild but the air is cool and can be quite cold at night. The temperature can be as low as 20°C.

d. *Site context*

The Arera Hill is flanked by a large lake on one side and greenery on the other. Other government buildings are down the hill on the lakeside whereas government residences are behind the green zone. The building site is cleared but there is an old temple in a distance.

e. *Site topography*

Vidhan Bhavan is located on the crest of Arera Hill, which drops sharply to the lake side, but gently to the green zone where the main road passes. It has a panoramic view to the lake but an obscured one to the green area of the city. It is also better seen from the lake side rather than from the other side.

III. Programme

a. *Conditions of programme formulation*

The formula is to represent Madhya Pradesh through its history, people, and culture.

b. *Objectives*

The objective of this project is to articulate nine different compartments into a pattern that represents unity, yet secures the need for separation and privacy.

c. *Functional requirements*

The architect's brief basically consisted of the following programme:

- The Upper House (366 members)
- The Lower House (75 members)
- The Combined Hall
- Library
- The Speaker of the House office
- The Chief Minister office
- The Chief Secretary and supporting staff offices
- The Ministers and PA offices
- Services, Utilities, and Parking facilities

IV. Description

a. *Project data*

– Total Site Area	85'000 m ²
– Total Ground Floor Area	11'000 m ²
– Total Combined Floor Area	32'000 m ²
– Foundation	Cast-in-place reinforced cement concrete
– Principal Structural Members	Cast-in-place reinforced cement concrete
– Infill	Brick walls
– Exterior finishes	Dholpur sandstone cladding
	Polyurethane paint
	Handmade ceramic tiles border
	Local red stone

- Interior finishes
 - White and coloured Indian marble & granite
 - Red sandstone & local red stone
 - Gypsum & cement particle boards
 - Neeru finished cement plaster
- Roofing
 - Reinforced cement concrete
 - Fibreglass skylight
 - Brick bat coba insulation
 - Transparent polycarbonate sheets
- Construction technology
 - Conventional-in-site reinforced concrete

b. Evolution of design concepts

The design started with a circle, which was the architect's initial response to the passing main road. As such, it would reveal the building's façades in sequence to suggest different functions. Inside, this circle became a frame where all functions were structured to respond to particular and general requirements.

c. Structure, Materials, Technology

The choice of construction-in-site, manual works, and local materials had been determined since the beginning. It was not enforced by the limitation of budget but rather by the architect's preoccupation to always build within the local context.

d. Origin of technology, materials, labour force, professionals

All features used in this project were local, including materials, architectural heritage, artworks, moderate climate, and pleasing weather.

V. Construction Schedule and Costs

a. History of project

This project took the following chronology to complete:

- Commission of the project: July 1982
- Completion of all working drawings: July 1984
- Tender started: December 1983
- Construction started: August 1984
- Construction stopped due to litigation with the contractor: July 1987
- Construction restarted: January 1989
- Construction stopped again due to litigation with the contractor: March 1993
- Construction restarted again with new contractor: October 1994
- Inauguration by the Honorary President of India: August 1996

b. Total costs and main sources of financing

- Total costs USD 11'530'000 by August 1996
- Main sources of financing The State Government of Madhya Pradesh
- Comparative costs No comparison to similar projects in the State
- Costs analysis *ibid.*
- Maintenance costs No information is available due to security reasons

VI. Technical Assessment

a. *Functional assessment*

I was invited to visit the building when the assembly took place and was able to watch the debates in the Lower House. I therefore had the opportunity to witness that all functions were working well and people circulated smoothly. Fresh air from the courtyards and main entrances filled up all non-air-conditioned spaces whereas the acoustics in all air-conditioned spaces were perfect.

b. *Climatic performance*

There were no leaks or cracks in this building so far. Additional accessories such as benches, chairs and desks that were made for public purposes were frequently used by the visitors, staff, and representatives. There was no vandalism either. Security officers were placed according to the design plan, thereby avoiding the atmosphere of fear within the whole complex. Utilities also worked well.

c. *Choice of materials, level of technology*

There were no structural flaws that might endanger the integrity of the building's construction, yet the workmanship in general is moderate. That is a pity because I have been informed that the Madhya Pradesh State has many good craftsmen.

d. *Ageing and maintenance*

There were no signs of ageing at the time of my visit. Some equipment that was required by the design had just been installed and the landscaping had not yet begun. This is actually an on-going project, the budget of which depends on the government's programme.

All government buildings in India are maintained by the respective state governments under the domain of the public works department. In this case, heavy maintenance and repair is usually completed prior to the assembly periods, which happen three times a year. I saw a clean and nice looking building because my visit was only a day before the assembly. I presume that the maintenance will be lower during the idle periods.

e. *Design features*

- Gardens (the courtyards) within a garden (the landscape)
- Buildings (the functions) within a building (the circle wall)
- Separated yet interconnected system of internal circulation and meeting places
- Natural light and ventilation
- Modern interpretation of the heritage
- Integration of architecture and artworks

VII. Users

- Mahesh Buch, former secretary of the state government, chairman of the empowered committee (established in 1993 to complete the project), presently the head of the National Centre for Human Settlement & Environment that is in charge of the reforestation of the city of Bhopal.

Response: “This project would have been completed a long time ago if not for disputes with the former contractor. My assignment was to complete it as soon as possible. As

the chairman of the empowered committee, I had full authority to avoid the bureaucracy. Charles has done a great job not only in his design but also in supporting Madhya Pradesh artists to stamp their works in this building.”

- R. K. Mirsha, government’s assistant engineer in charge of the whole project since April 1985 to the present.

Response: “This building articulates many features simultaneously, natural light and ventilation, access and circulation, open and closed spaces, old and new forms. Choices of local materials blends naturally with local environment and Madhya Pradesh in general.”

- Prashant Khirwadkar, Urban Designer, head of the Environmental Planning & Coordination Organisation, Bhopal

Response: “Architects in Bhopal are very proud of this building, and we also respect Charles Correa because he has done many great works in India. We used to come to the site whenever he was there during the construction just to learn from him. As to the building itself, it is a good building because it includes Madhya Pradesh architectural traditions of all periods as well as Madhya Pradesh artworks. As such, it represents the State of Madhya Pradesh.”

VIII. Persons involved

Project personnel

- Charles Correa, Architect
- Mahesh Buch, Client
- R. K. Mirsha, Engineer-in-charge

Budi A. Sukada
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