

POST INDEPENDENCE ARCHITECTURE IN INDIA : A Search For Identity in Modernism

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ABSTRACT-India had a glorious history in terms of its rich art and architecture, starting from 3000 B.C. During the British period from 1615- 1947, the major cities of Delhi, Calcutta, Mumbai and Chennai were highlighted with rich colonial styles of Indo-Sarcenic architecture. After Independence, there was a boom of building activities and there were confusions and debates on the style of architecture to be followed— modernism or historicism. Different styles of Modernism evolved raising the question of Identity in Post Independent architecture.

KEYWORDS-Modernism, Post-Independence, Revivalism, geometric forms, Expressionist style, biomimicry architecture, contemporary modernism, chattris, progressive architecture, Brutalism, Regionalism, Tradition, Vastu Purusha Mandala, metamorphosis, identity, climate responsive, vernacular

ARCHITECTURAL HISTORY OF INDIA

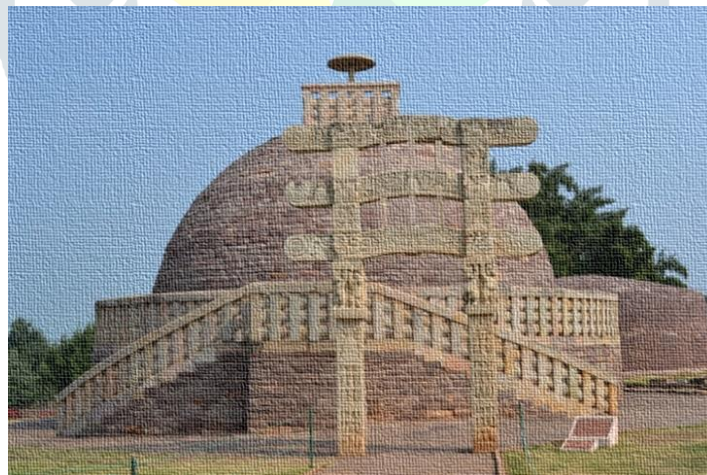
India has a rich history dating from 3000 B.C. Indus Valley Civilization to 1947 AD Indo-Sarcenic Architecture. The main historical period and styles are as follows.

The Indus Valley Civilization 3000-1700 BC

The Indus Valley Civilization dates to 3000-1700 BC with towns of **Mohenjodaro** and **Harappa** with a good town planning system and an elaborate drainage system (brick lined drainage on all the street sides).

Post MahaJanapada Period 600 BC-200AD

This period architecture ranges from Buddhist stupa, Viharas, temples (brick and wood), rock cut architecture, Ajanta and Ellora, step wells, etc



Middle ages 200 -1500 AD

The Middle Ages architecture speaks of sculptured temples both South India temples and North India temples. The South India temples had a square chambered sanctuary topped by a three spire with an attached pillared mandapa as in Brihadeswara Temple, while the North India temples had elaborated spires, beautiful sculptures, delicate carvings, gopurams and courtyards as in Kailasa Temple, Khajuraho Temple, Konark Temple

Mughal architecture 1500- 1615 AD

The Mughal architecture highlights the Mughal tombs of sandstone and marble which reciprocate the Persian influence as in Red Fort, Fatehpur Sikri, Taj Mahal, etc

Colonialism – Indo-Sarcentic architecture 1615- 1947 AD

Indo-Sarcentic architecture characterizes all institutional buildings built in this period. Domes, overhanging eaves, pointed or cusped arches, vaulted roofs, domed chattris with finials, towers or minarets, harem windows, open arcading, etc.

Sir Edwin Lutyens, British architect designed The Parliament, Secretariat, and the whole capital of New Delhi. These buildings draw elements from native Indo-Islamic and Indian architecture and combined it with the Gothic revival and Neo-classical styles favoured in Victorian Britain. Lavish colonnades, rectangular windows, pediments for windows, classical portico, rustification on the plaster, were some characters.



Figure 2: Madras High Court

POST INDEPENDENCE ARCHITECTURE

Indian architects before Independence were working under the British architects. After the British left India in 1947, Indian architecture was in chaos. Perhaps, there was an identity crisis, a dilemma whether to adhere to historical precedents or move forward with times using new ideas, images and techniques. While in other fields like art, music and culture, the distinct Indian imprint was more enhanced in the post-Independence period; no such thing was discernible in the case of architecture.

Jawaharlal Nehru, the first Prime minister of India had a far vision for the betterment and development of art and architecture in India. He invited Le Corbusier to design the capital of the state Punjab, Chandigarh. Le Corbusier designed the Legislative Assembly, Secretariat and High Court.

Chandigarh became a powerful symbol of New India and inspired the architects and the public for a forward looking Modern Architecture in the Post-Independence period.



Figure 3: High Court, Chandigarh

Ahmedabad, a new cultural and architectural awakening was initiated by textile industrialists led by the Sarabhai family who commissioned Le Corbusier to work on five projects there. Le Corbusier designed the Mill Owner's Association Building Headquarters for the Textile Company 1954.

NATIONALISM AND ANTI-NATIONALISM

Nationalism, a widespread and understandable sentiment in the first flush of freedom, was sought to be expressed through Revivalism in all forms of cultural expression, including architecture. Building styles born of the Modern Movement and the colonial experience were perceived as foreign and hence anti-national. Some of the tallest political leaders in the land lent their support to the revivalists, who sought to reach back a thousand years for architectural forms and details which symbolised various classical eras and golden ages of Indian culture.

On the other side were a handful of intellectuals and architects who argued that monuments should be viewed in context of their times, that they were not to be imitated and modern India required modern architectural symbols and forms to express the dynamism of a free people on their march to economic development.

While the debate on style raged throughout the decade, the 1950s also saw a significant expansion of architectural education. In 1947, there were three schools: at Baroda, Bombay and Delhi. Some of the architects came back to India after education and training in western countries like Charles Correa, B.V. Doshi, Raj Rewal, Achyut Kanvinde which resulted in strong architectural character.

Five distinct approaches of architectural expressions in India were identified during the Post-Independence period. They are

1. Plastic or geometric forms exploiting the potential of concrete used to express distinct and bold forms, volumes and shapes growing out of functional needs.
2. New language of exposed brick and concrete
3. Bold and aggressive articulation of structural elements- an expression of Brutalism like Kenzo Tange, James Sterling, Moshe Safdie
4. Sensitive approach to harmonizing with the micro environment that is reminiscent of the best traditions of F.L.Wright and Richard Neutra
5. Regionalism – an amalgamation of modernism with traditional experience of town planning, neighbourhood clustering, harmonize with nature, climate control and using local materials

1. Plastic or geometric forms exploiting the potential of concrete

The plasticity of concrete was exploited in geometric forms of Sri Ram Cultural Center, New Delhi (1969) by Shiv Nath Prasad which promotes dance, drama and theatre. It expresses a bold statement of form extending the vocabulary of RCC.



Figure 4: Sri Ram Cultural Centre, New Delhi

New Delhi Municipal Council (NDMC) Headquarters – Palika Kendra (1983) By Kuldeep Singh is a monumental building which flanks sharply in a clean curve to form two conjoined towers.

Kanchenjunga Apartments, Mumbai (1983) by Charles Correa, the tall geometrical form penetrate by voids is another example.

Lotus temple, Delhi (1986) by Fariborz Sabha also exhibits the strong form exploited by exposed concrete. It is more of an Expressionist style with biomimicry architecture, a nine sided circular structure, composed of twenty seven free standing leaves made of concrete slabs clad with marble and capped with dramatic glass and steel skylights.

Prathama Blood Centre, Ahmedabad (2000) by Gurjit Singh Matharoo has a sculptural form out of folded paper. This whole structure is custom designed from the external shell to the door handles and the elements are locally produced

IIM Ahmedabad new campus (2009) by Bhima Patel follows a contemporary modernism using exposed concrete structures.

2. New language of brick and concrete

An indigenous language of brick and concrete was displayed in the architecture of YMCA staff housing Delhi (1963) by Ranjit Sabikhi. The form was characterized by the repetition of geometric forms and its plans dictated by social, functional and climatic considerations.

The Central Institute of Educational Technology, New Delhi (1986) by Raj Rewal had a fluctuating circulation interspersed with small balconies and occasional chattris which modulate the light and shade and the viewing platforms was exuberant using sandstone which was the cheapest building material in this region.



Figure 5: Central Institute of Educational Technology, New Delhi

The National Institute for Faith Leadership, Dasna Uttar Pradesh (2014) by Sourabh Gupta evolved and modernized Islam with its new and bold expression for an Islamic built form and an introverted magnificence of an Islamic institution with honesty and guileless transparency of the users using materials in their true state,

3. Brutalism - bold and aggressive articulation of structural elements

The Permanent Exhibition Complex, Pragati Maidan, New Delhi, (1972) by Raj Rewal was characterized by monumental, truncated pyramid form with a space frame structure made of concrete elements. The depth of the structural system used as a sun-breaker and conceived as a traditional jail.



Figure 6: The Permanent Exhibition Complex, Pragati Maidan, New Delhi

The State Trading Corporation, New Delhi, (1976) by Raj Rewal is a good example of Expressionism with a unique structure and surface treatment. The special Vierendeel girders between alternate floors and the octagonal openings represent the modern equivalence of traditional jalis.

The National Dairy Development Board Office building, New Delhi (1985) by Achyut Kanvinde represents a raw and monstrous, rough and blocky form with a fortress like structure.

The Indian National Science Academy, New Delhi (1990) by Raj Rewal has a bold and progressive architecture using RCC shear walls and sandstone cladding with a climate based design with no energy consumption.

The National Science Centre, Pragati Maidan, New Delhi (1991) by Achyut Kanvinde has vertical volumes that rise gradually, the skylights being the dominant character, similar to Louis Kahn's Richard Medical Research Laboratories, a structure built of RCC with brick infills plastered with stone.

The Antilia, Mumbai (2010) by Perkins & Wills is a green tower of 27 storeys which combats heat island effect made of folded plate form composed of closed box and open box. Through the form, there is a conflict between verticality and horizontality.

4. Harmonizing with the micro environment

The India International Centre, New Delhi (1958) by Joseph Allen Stein was contextual and rational, understanding the climate with sun shaded vaults, jaali screens, courtyards, etc

The Kovalam Resort, Trivandrum (1974) by Charles Correa reflect the traditional architecture of Kerala with sloping roofs and hill side architecture giving every room a view to the sea.

The Bharat Bhavan, Bhopal (1982) respects the context by designing an underground cultural center with courtyards, terraces and social spaces.



The IIM, Bangalore (1983) by B.V. Doshi uses organizational principles of design with interlocking courts, terraced gardens, connections and pavilions. Figure 7 The Kovalam Resort, Trivandrum

The CII Sohrabji Godrej Building, Hyderabad (2003) by Karan Grover is sensitive to context with central courtyard, colonnaded verandah and jaali walls. This building is energy efficient, water efficient uses salvaged or recycled materials, incorporates roof garden with LEED rating of 56% and a Platinum award.

The Suzlon One Earth Head quarters, Pune (2009) by Christopher Benninger incorporates a traditional style but sensitive to climate with LEED rating of 57% and a Platinum award.

5. Regionalism

While some of the architecture reflected Regionalism which is an amalgamation of modernism with traditional styles, reflecting the following characters.

1. Traditional experience of town planning
2. Regional Building vocabulary
3. Using Vedic principles
4. Usage of local materials
5. Responsive to climate
6. Shift to social concerns – Clustering
7. Economical approach

Traditional experience of town planning

Raj Rewalsaid that “Tradition should not be approached for its underlying order, not for its superficial effects. It should be rethought in terms that are right for the possibilities and limitations of the present social order”.

The Asiad Games Village, New Delhi (1982) by Raj Rewal had broken up forms with open courtyards which created a sociable living or working environments.

The urban fabric using the clustering of forms had a central spine of narrow, shaded pedestrian pathways for shade and cross ventilation, bridges linking the units with social space for interactions creating a sense of belonging to the neighborhood square

Regional building vocabulary

Many building used the sloping roof character as prevalent in the traditional architecture.

Using Vedic principles

The VidhanBhavan, Bhopal has a deep understanding of the Vedic Principles based on Vastu Purusha Mandala, a Hindu philosophy, based on symmetrical axis and courtyards as gardens. The hemispherical roof of the lower house chamber had a mix of various cultures including the Sanchi Stupa.

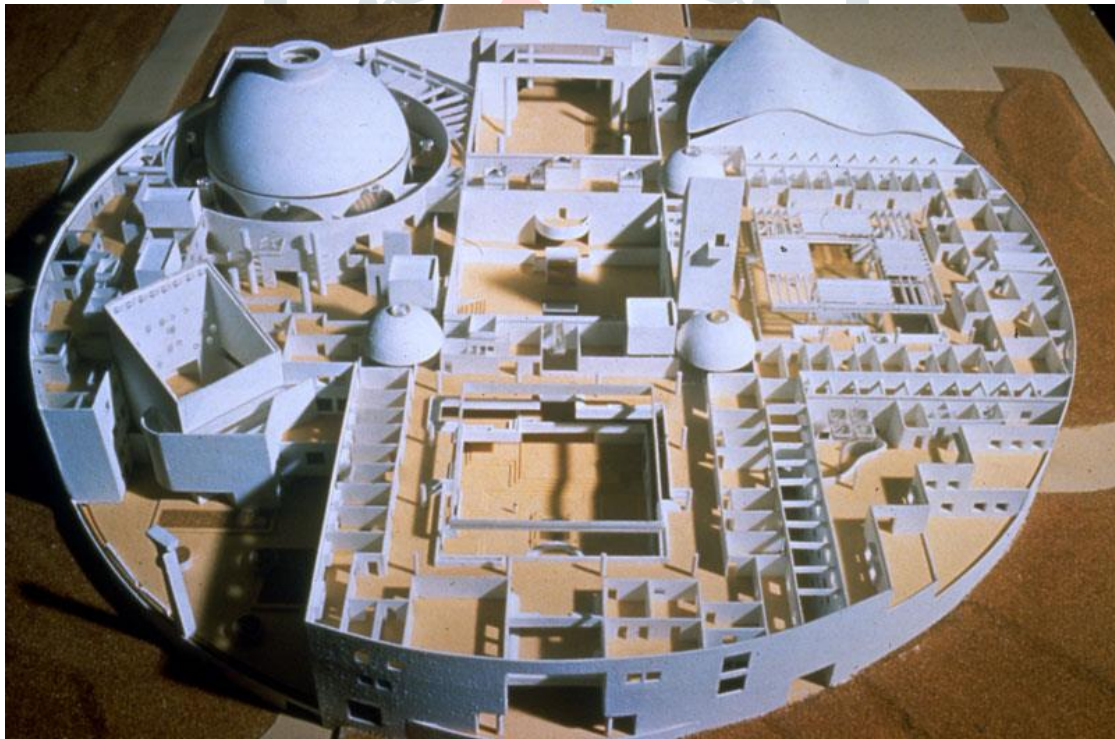


Figure 8The VidhanBhavan, Bhopal

The Jawahar Kala Kendra, Jaipur was an analogue of the original city of Jaipur based on the Vastu Purusha mandala of 9 squares, representing 9 planets and two imaginary lines

Usage of local materials

Laurie Baker’s Indian Coffee House, Trivandrum, Kerala used the local brick into a strong innovative form of spiraled cylinder with play of light.

Laurie Baker's residence design was based on Gandhian principle, quite simple and humble, low cost, using locally available building material, reinventing the vernacular techniques of construction – Filler slab construction, rat trap bond, traditional incorporation of trellises, etc

The Brick House, rural Wada near Mumbai was constructed from locally sourced materials like brick, stone, wood, bamboo, and ferro-concrete to keep costs low designed with rat-trap bond brickwork, passive technologies, and large arched openings that take in generous amounts of natural light and views of the surrounding countryside.

The Himalayan Village Eco resort composed of unique guest cottages are made using traditional Kathkunia building techniques, which involve stacking dry stones and wood without any cement. Some of the more striking cottages stand on tall stone-and-wood pedestals, towering several stories above ground.

Climate responsive

The Parekh House, Ahmedabad by Charles Correa responded to the hot climatic conditions of Ahmedabad.

Low cost Housing

Belapur Housing, Navi Mumbai by Charles Correa used low cost schemes to develop the project into an interesting design.

IDENTITY OF POST INDEPENDENCE INDIA in MODERNISM

Although we see a major metamorphosis of architecture ever since 1950 towards modernism, inspired by the renowned International architects Le Corbusier and Louis Kahn, the identity of Indian architecture is not pure modernism.

Most of the successful Indian architects including Charles Correa, Raj Rewal and B.V.Doshi blended vernacular elements into modernism giving it a rich flavor that demarcates the identity of Indian architecture. They used deep overhangs, courtyards, shading devices, pergolas, jaali screens to create an aesthetically appealing climate responsive design.

Charles Correa has a deep understanding of cultural values, mythological spaces and historical architecture of India. He emphatically blended the Navagraha mandalas in two of his projects where the traditional elements cannot be separated from modernism.

Raj Rewal was very fluent in using vernacular elements of Jaisalmer town in most of his projects, incorporating the hierarchy of social spaces, street patterns, urban fabric, abstract chhatris, locally available materials.

The magnificence of spaces in the projects of B. V. Doshi, especially IIM, Bangalore adds a sensational aroma to Indian modernism which includes the play of light and shade, covered, semi-covered and open quadrangles, and integration of landscape in to the buildings.

Indian Modernism is not just about form, function, materials, structure but it adds another fourth dimension which is the feel of fresh air and nature inside the aesthetically profound spaces.

Indian modernism is not just architecture of the rich but of the poor with intricate cultural details assimilated like Aranya housing by B.V. Doshi and Belapur housing by Charles Correa.

Indian architecture is a fine mix of modernism with traditional insights identified as Critical Regionalism, having a more functional and rational approach to design which is the main language of modernism while incorporating the social spaces, regional vocabulary, economical possibilities, climate responsive, integration of architecture with landscape, energy efficiency and using locally available materials, which gives a strong identity to Indian Modernism architecture.

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