

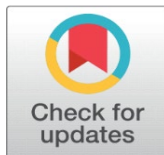
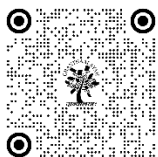


# INDIAN ARCHITECTURE: SCENARIO AT THE DAWN OF INDEPENDENCE

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## ABSTRACT

At the time of Independence of India, the challenge was to create an image of a progressive nation through the mode of architectural expression to celebrate nation's independence. Though it couldn't happen right away as the majority of Indian architects at the time of independence were under the influence of architecture of the Britishers or were working in the architectural firms established by British architects. So, the change was gradual with its inception in pre-independence era of 1930s and 1940s, when some of the foreign architects designed and executed their projects with European expressionism and Bauhaus thinking in the country. But these were isolated efforts and could not take the shape of an architectural movement. These waves of rationalist thoughts kept on smoldering with war between the Revivalist and the Rationalist thoughts propagators throughout 1940s as well as at the time of independence and immediately after it. The journey progressed further with the arrival of foreign trained Indian architects. They brought with them ideas of modernism and thinking of Bauhaus rationalism. This movement further got expedited when the political patronage threw its weight behind rationalist thoughts over the Revivalist by inviting international Master of Modern Architecture to design on the Indian soil. Thus, this study is an effort to throw the light on the journey of Indian architecture from Swadeshi movement of 1930's to Rationalist Modern architecture immediately after independence.

**Keywords:** Modernism, Rationalism, Revivalism

## 1. INTRODUCTION

During the time of independence of the country, there were a lot of opportunities as well as demand to build the infrastructure which included buildings to meet social demands, new public buildings to house bureaucracies, housing for massive influx of refugees from Pakistan, industrial infrastructure, and housing for workers to meet the policy of decentralization of industry to give impetus to the regional development. The major question among the architects and planners was, "How best to build?" At the same time, there was a new challenge of celebration of the new identity created by independence. It is in this context that the modernist architecture took off in India [Lang et al. \(1997\)](#).

In short run, it resulted in little change in nature of architecture because most of the Indian architects of the period were either pupils of Claude Batley at the Sir J.J. School of Architecture in Bombay or had worked with him in Gregson, Batley, and King. It was not only the work of established architectural firms, but also the work of the public works department of that period, that was a fusion of their conservative 1930s outlook and the images of modern buildings. It was only after the return of foreign trained Indian architects that the intellectual pace for Indian architecture was set in the post-independence era along with the arrival of Le Corbusier and Louis I Kahn.

## 2. ADVENT OF MODERNISM IN INDIA

The Indian architecture has gone through a lot of transformations which were predominantly dictated by the political developments, since the Mughal period (1550-1770 A.D.). After the arrival of East India company and their gradual penetration in the country, lead to the development of colonial architecture in the first half of nineteenth century [Fergusson et al. \(1910\)](#). By the middle of the 19<sup>th</sup> century, the impact of colonial architecture was visible in architecture of country due to their political dominance. Though with the passage of time, the second half of nineteenth century saw a gradual shift in the architecture of the country, yet this change was not very obvious. The revolt of 1857 was the turning point and wake up call for Britishers and it led to the beginning of Indo Saracenic architecture- as an imperial gesture to revive Indian traditions and a visible symbol of an aspect of British policy to show the sense of belonging to India. But, later on the use of modern structural materials such as cast-iron lead to change in building typologies and architecture as per requirement of creation of industries and mass scale housing for workers – the prerequisite of Industrial revolution brought by Britishers in India.

In the beginning of the 20<sup>th</sup> century, Indian architecture further drifted away to a new path, shown by international modernists- showcasing European expressionism with influence of international modernism and departure from neo-classical architecture propagated by Britishers during Edwardian era (1907-11) [Bagga \(2008\)](#). So, the advent of modern architecture in India started during Pre-independence era. **So, the Neo-classical style of Edwardian era, which was characterized by grandeur of scale, dramatic use of Columns and Greek or Roman details gave way to Modernism with simplicity of form, purity of expression, straight lines, and lack of ornamentation.** Walter S. George (1881-1962) and A.G. Shoosmith were instrumental in bringing this transition from Lutyens neo-classical forms to brick facades with simplicity of line, form, lacking decoration [Frampton \(1992\)](#). The pure European expressionism with purity of form and simplicity of lines in St. Martin's Garison Church, New Delhi (1928-31) by Shoosmith was quite away from prevalent Imperial style at that time [Figure 1](#). It was further reinforced by George's St. Stephen's college, New Delhi (1938) with brick facades, purity of form [Figure 2](#). These buildings clearly depict that there is no place for pseudo-ornamentation as was prevalent in revivalist architecture propagated by Swadeshi movement of Sris Chandra Chatterjee during the same time **in the Laxminarayan temple (1938), New Delhi, in which, Chatterjee used the temple architecture of Nagara style prevalent in North India during 5<sup>th</sup> to 13<sup>th</sup> century, with carvings, fresco paintings and Shikhara above Sanctum** [Figure 3](#). Further, propagation of modern architecture in India got restricted till the foreign trained Indian architects came home. Though by that time, some of the established Indian architectural firms as well as public works department of Government started reflecting signs of transition from Revivalist mode to rationalist mode **with features**

like order, proportionality, use of symmetry and geometrically defined structures with use of straight lines, pure geometrical forms, orthogonal massing, purity of expression without any pseudo-ornamentation.

Figure 1



Figure 1 St. Martin's Garrison Church, New Delhi (1928-31): Pure European Expressionism

Figure 2

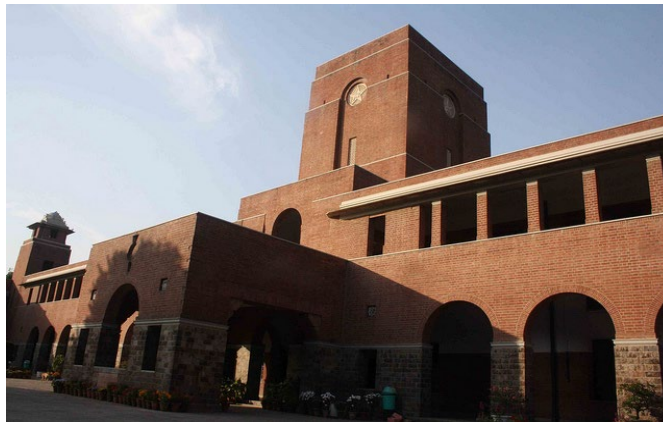


Figure 2 St. Stephens College, New Delhi (1938): Simplicity of Facades and Massing Show a Dramatic Departure from the Neo-Classical

Figure 3



Figure 3 Lakshmi Narayan Temple, Delhi (1938)

Lady Dufferin Victoria Hospital (1937) in Calcutta by Ballardie, Thompson and Mathews showed the influence of international modernism on Art Deco. It reflected simplicity of form, purity of lines, flat facades with strong orthogonal geometry in composition [Figure 4](#).

**Figure 4**



**Figure 4** Lady Dufferin Victoria Hospital, Calcutta (1937): The Influence of International Modernism on Art Deco

**Figure 5**



**Figure 5** I.I.T., Kharagpur - Main Block (1951)

The main block of I.I.T. Kharagpur (1951) is a simple modern building with no decoration, flat concrete roofs, cubist form and simplicity of lines. It is the work of British headed companies that grew out of imperialist overtones over the passage of time [Figure 5](#). The similar type of uncertainties was prevalent in the architecture of public works department at central level where they were facing the problem of developing the Mall area of New Delhi that fit in the architecture of Lutyens and Baker, yet being different. Many buildings around the mall have used the traditional Indian architectural elements combined with the simplicity of modern forms. Deolalikar's design for Supreme Court of India (1954-58) was blend of Indian and British style. The use of dome was in harmony with the Lutyens precedent in the design of Viceroy's palace. It incorporated Chattris, which were in strong contrast to those in the design of Lutyens or Baker [Figure 6](#).

The Vigyan Bhavan, New Delhi (1955) designed by R.I. Gehlote of central public works department contains the revivalist elements of Hindu and Mughal architecture. But the building in overall composition is modern as far as its massing and simplicity of form is concerned. The entrance arch is a borrowed form from the chaitya arches of Ajanta. The building is topped by perforated *jaali* [Figure 7](#).

**Figure 6**



**Figure 6** Supreme Court, New Delhi (1954)

**Figure 7**



**Figure 7** Vigyan Bhawan, New Delhi (1955)

The same character is evidenced in some of the state public works department buildings. The Secretariat (1950) building of Orissa in Bhubaneswar is a combination of Art Deco and international modernist architecture with revivalism in detailing. Its central tower was inspired from cinemas of Bombay in Art Deco while the wings of the building are utilitarian modernist. The projecting concrete fins in central tower emphasize its vertical nature, while thin fins in the wings are more of functional nature [Vaz \(1954\) Figure 8](#).

Still, the political influence even in the era of emergence of New India leads to some of the revivalist buildings. The Vidhan Soudha, Bangalore (1952-56) is revivalist under the influence of the then Chief Minister, even though the designers B.R. Manickam and H.R. Naidu interpret its architecture as modern for modern era. The building massing, proportion system and general layout with grand flight of

steps leading to the portico with dome above are European classical in character, but the decorative elements of the building like *chhajjas*, column capitals and brackets are taken from the temple architecture [Figure 9](#).

### 3. ARCHITECTURE OF FOREIGN TRAINED INDIAN ARCHITECTS IN POST-INDEPENDENCE PERIOD

This conflict of ideologies of political patrons and rationalist thoughts continued. It was not, however, until the first Indian architects educated abroad under the direction of modernists returned home that the modernist ideas took a firm hold [Lang et al. \(1997\)](#). This group of foreign trained architects gave impetus to the architecture of the next three decades in India.

**Figure 8**



**Figure 8** The Secretariat, Bhubaneswar (1950): Combination of Art Deco and International Modernist Architecture with Revivalist Touches

**Figure 9**



**Figure 9** Vidhan Soudha, Bangalore (1952-56)

These architects were inspired by the Bauhaus thinking, either by working with the Bauhaus masters in Britain or the United States or through journals while studying overseas. They brought with them the ideas explored abroad during studies. But at the same time, they showed great flexibility of thought after coming back home.

In West Bengal's public works department, one of the first architects, Habib Rahman, trained at Massachusetts Institute of Technology (MIT) and work experience with Walter Gropius, joined the department. Full of Gropius and spirit of modern movement, he was compelled politically to design Gandhi Ghat memorial (1948-49) in traditional Indian 'style' (Hindu and Moslem) Rahman (1996). He designed the memorial in such a way that on the *Shikara* (spire like tower) of a Hindu temple, sat an Islamic dome with asymmetrical cantilevered canopy in reinforced concrete vaguely referring to a Christian cross Figure 10. After designing this building, Rahman's view was "Architecture in India today is practically dead, and I don't feel that a good modern architecture will be developed here in near future" Chatterjee (1996).

Even after the exit of British from India, new political leadership including Nehru, initially was of opinion that the architecture for an independent India should should act as a symbolism of a progressive nation. But Rahman was fortunate enough to be given liberty while working in West Bengal public works department to continue with his modernism ideals because the Bengalis wanted to regain their lost esteem due to the shift of capital from Calcutta to Delhi by progressive political, intellectual, and artistic movement.

Rahman's design for the New Secretariat building, Calcutta (1949-54), was exemplary evidence of modernist approach to the design of public architecture. This thirteen-storey high steel framed building was a pure example of influence of functionalist Rationalism of his American training. It shows the clarity of form which the architect sought from the Bauhaus. The pigeonhole shades kept the sun off the southern façade showing the architect's concern for local conditions Figure 11.

The Bauhaus impact persisted to run through Habib Rahman's works in Delhi public works department till the end of 1950s, after joining in 1953 as Senior Architect. These works include Dak Tar Bhavan (1954), the Auditor and General Controller's office (1958). All these works were direct repetition of Bauhaus thinking, with box like structures and crispy cut rectangular openings Figure 12. Rahman's architectural development showed a break from a direct repetition of Bauhaus thinking in the design of Rabindra Bhawan (1961). The building is purely modernist in terms of honesty of expression, use of materials and in structural system. A free-flowing form with slender continuous *chhajjas* and *jaalis* were incorporated in such a way that this didn't dilute the modernist design idiom Figure 13.

**Figure 10**



**Figure 10** Gandhi Ghat, Barrackpore, West Bengal (1948-49): Abstraction of Purely Modernist Expression

**Figure 11**



**Figure 11** West Bengal's New Secretariat, Calcutta (1949-54): Juxtaposition of Geometric Forms, Vertical & Horizontal Lines

**Figure 12**



**(a) The Auditor and General Controller's office, New Delhi (1958)**



**(b) Dak Tar Bhawan, New Delhi (1954)**

**Figure 12** Direct Repetition of Bauhaus Thinking

**Figure 13**



**Figure 13** The Rabindra Bhawan, New Delhi (1961)



Hence, the tradition of Rationalist modernism continued in the first half of 50s with another architect Achyut P. Kanvinde (Harvard educated), who designed the buildings of the Ahmedabad Textile Industry's Research Association (ATIRA) (1950-52) and Physical Research Laboratory (1953-54), Ahmedabad. Both these buildings have the reflect footprints of the Bauhaus, with purity of form, simplicity of lines, horizontal bands of openings and all features of Rationalist modernism of Bauhaus [Figure 14 Chatterjee \(1985\)](#). The design of Pilo Mody and Durga Bajpai's the Intercontinental (now Oberoi) Hotel (1958) in New Delhi, also shows a clear imprint of the International Style promoted by Gropius [Figure 15](#).

When public works department in Delhi under the patronage of Rahman was coming out of the use of traditional elements and indebtedness to Lutyens work by practicing Rationalist modernism, there was another group of architects who came to India after studying abroad and were influenced by the Empiricist thoughts and ideas of Frank Lloyd Wright by either working directly with him or having strong influence of his works and design philosophies [Serenyi \(1985\)](#). This group applied their ideas responsively with adaptation to the regional constraints. This Empiricists approach to design celebrated its peak with the arrival of Kahn in India, and even some of the Rationalist transformed their design philosophy with more respect to regional constraints issues with passage of time. Habib Rahman was one among them. Those who came full of Empiricist ideas were Joseph Allen Stein, Gautam Sarabhai and Gira Sarabhai. Joseph Allen Stein came to India in 1952 to develop an architectural curriculum for the Bengal Engineering College, Calcutta. Stein had deep convictions for context responsive approaches to modern architecture and sensibility for climate and landscape responsive design [Scriver & Srivastava \(2015\)](#). In Delhi, he found the renewed inspiration with the rich legacy of stone tombs and other monumental buildings on city's sprawling landscape and the semi-arid climate of city.

In the India International Centre (1959-62), he used delicate aluminium and clay *jaalli* (sunscreen) to gently scallop the guest wings. The detailing and landscaping in local stone speak volumes about how the modern architectural rationalism could be diffused when responsively applied and adapted to regional constraints and in harmony with the nature. All these features were collectively known as Romanticist Modernism [Khanna \(2008\)](#). Though, Stein had little contact with Frank Lloyd Wright, yet his works owe much to Wright's philosophy, where nature and man's-built habitat could be in harmony with each other [Figure 16](#). This can be seen in flow of spaces linking various components, common in Stein's buildings, even in India Habitat Centre, three decades later.

The National Institute of Design, Ahmedabad (1961), designed by Gautam Sarabhai and Gira Sarabhai reflects Wright's organic architecture and showed clear influence of them.

**Figure 14**



**(a) Physical Research Laboratory, Ahmedabad (1953-54)**



**(b) The Ahmedabad Textile Industry's Research Association (ATIRA) building, Ahmedabad (1950-52)**

**Figure 14** The Clear Imprint of the Bauhaus - Purity of Form and Use of Newly Developed Building Technologies

**Figure 15**



**Figure 15** The Intercontinental (Now Oberoi) Hotel, New Delhi (1958): The International Style Promulgated by Gropius

**Figure 16**



**Figure 16** The India International Centre, New Delhi (1959-62)

**Figure 17****Figure 17** The National Institute of Design, Ahmedabad (1961)

mentor, with whom they worked at Taliesin in 1940s [Dengle \(2015\)](#). The use of solid and void, horizontal layering of building with brick infill panels and the ties to nature by linking inside-out, were the hallmarks of Wright's organic architecture. The reinforced structural system might have been influenced from Sanskar Kendra designed by Le Corbusier in city few years earlier [Figure 17](#).

#### 4. FINDINGS AND DISCUSSION

The Indian architecture during the first half of 20<sup>th</sup> century was a mixture of neo-classical architecture propagated by Britishers, Revivalist architecture by Indian nationalists - as a reaction to neo-classicism and modernism-which was brought to the country by foreign architects with isolated structures with pure European expressionism, simplicity of façade and use of flat concrete roofs. Out of all, the modern movement took the lead by the arrival of foreign trained Indian architects, who brought with them the ideas of modernism. Their thoughts were restrained by political bosses, who were in favor of revivalist architecture, which is evident in architecture of the secretariat (1950) building of Orissa in Bhubaneswar and the Vidhan soudha, Bangalore (1952-56). But, with the passage of time, this war between revivalist and rationalist thoughts settled in favor of rationalist ideology, when the political patronage was granted to rationalist ideas by inviting French architect to design the capital city of Punjab by the then Prime-minister of India.

#### 5. CONCLUDING THOUGHTS

The works of the foreign trained Indian modernists in immediate pre-independence era had a profound effect on what followed. The architecture of the British was not acceptable because of political reasons, although it was gradually adopted to regional climates of India in three centuries. These modernists sought a complete break from the past and vision for the future. Batley's presence, though not very strong, was continuously felt on Indian scene. Reinforced concrete structure with flat concrete roofs, large glass windows in horizontal bands, became the hallmark of modern buildings everywhere in India. It was at this juncture of time, that Nehru threw his patronage to the modern architecture by assigning the design of Chandigarh, new capital city of state of Punjab, to Le Corbusier, a Swiss

born French architect. It gave impetus to the efforts of these foreign trained modernists to break away from the past and vision for the future course of architecture in the country. So, at this juncture of time, Modern architecture took off in India after a delay of almost half a century in comparison to the world. It continued in full swing for almost two decades. But gradually it started fading away when it dawned upon the minds of Indian architects to make architectural edifices more contextual in terms of social, cultural & climate perspectives in late seventies and early eighties.

### **CONFLICT OF INTERESTS**

None.

### **ACKNOWLEDGMENTS**

None.

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