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Klaus-Peter Gast

Modern Traditions

Contemporary Architecture in India

Klaus-Peter Gast

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Contemporary Architecture in

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— **Graphic Design**

Miriam Bussmann, Berlin

— **Lithography**

Licht+Tiefe, Berlin

— **CAD assistance**

Raphel Kalapurakkal, Cochin

— **Printing**

Freiburger Graphische Betriebe, Freiburg i. Br.

This book is also available in a German language edition:
ISBN 978-3-7643-7753-3

Bibliographic information published by the Deutsche Nationalbibliothek
The Deutsche Nationalbibliothek lists this publication in the Deutsche
Nationalbibliografie; detailed bibliographic data are available in the
Internet at <<http://dnb.ddb.de>>.

Library of Congress Control Number: 2007922517

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Basel · Boston · Berlin
P.O.Box 133, CH-4010 Basel, Switzerland
Part of Springer Science+Business Media
Printed on acid-free paper produced from chlorine-free pulp. TCF ∞

Printed in Germany

ISBN 978-3-7643-7754-0

9 8 7 6 5 4 3 2 1

www.birkhauser.ch

Table of Contents

7	Foreword Raj Jadhav	15	The Waking Giant
	— MODERN INDIAN		— CLASSICAL-MODERN
26	Charles Correa and Associates Vidhan Bhavan Government Building Bhopal, 1997	82	Khareghat and Associates Belvedere and Tytan Apartments Mumbai, under construction
34	Rahul Mehrotra and Associates House in a Plantation Ahmedabad, 2004	88	Klaus-Peter Gast House Leslie Pallath Cochin, 2005
42	Raj Rewal and Associates Indian Parliament Library New Delhi, 2003		— MATERIAL-TEXTURAL
	— REGIONALISTIC-MODERN	96	Rahul Mehrotra and Associates Accommodation for the Tata Social Sciences Tuljapur, 2000
50	Shimul Javeri Kadri Architects Production Building for Synergy Lifestyles Karur, 2004		— TRADITIONAL
	— LATE MODERN	104	Shimul Javeri Kadri Architects Ayushakti – Ayurvedic Treatment Mumbai, 1999
60	HCP Design and Project Management Pvt. Ltd. Indian Institute of Management New Campus (IIM) Ahmedabad, 2006	110	Karl Damschen Brunton Boatyard Hotel Cochin, 1999
68	Charles Correa and Associates Town Planning Mumbai and Bagalkot, under construction		— ECOLOGICAL-SUSTAINABLE
	— MINIMAL-ECONOMICAL	118	Karan Grover and Associates Sohrabji Godrej Green Business Centre Hyderabad, 2003
74	Raj Rewal and Associates CIDCO Lowcost Housing New Mumbai, 1993		
128	Selected Bibliography	128	Illustrations Credits



Northern Indian temple — Fatehpur Sikri — Administration building, Mumbai — Art Deco cinema, Mumbai

theories formed the foundation of much of the production of architecture.

When Persian invaders arrived from the 7th century AD onward, their worldview was significantly different from the existing worldviews. Opulence, narratives in the form of Quranic verses inscribed on edifices, ostentation, Persian form and aesthetics marked this new intervention. Depiction of humans and animals was forbidden – an axiom exactly opposite to the sculptural narratives of the pre-Islamic cultures. A number of other differences emerged. For almost a thousand years up to the 18th century, the Islamic and pre-Islamic architectures co-existed. The people learned to live with their differences or tried to harmonise them. Despite these differences, there were attempts at reconciliation between the Islamic and the pre-Islamic expressions. Moghul emperor Akbar's city of Fatehpur Sikri, built in the 16th century, is a representative example of such an attempted reconciliation.

European colonialists arrived gradually from around the 17th century bringing with them a third disparate worldview of Cartesian rationality, the Christian religion and European Classicism with its descendent styles. Architecture became a statement of imperial power with its grandeur and stylistic elements. Local craftsmen skilled in millennia-old traditions of craft were re-trained in the European arts. Colonial architecture became another addition to the plurality of architecture in India. The Modern thought was brought to India by the British Raj, bringing with it new materials, technology, methods and processes. The demise of the millennia-old traditions of craft became inevitable. Architecture was no longer produced by srenis (guilds) of mistris (craftsmen), but by architects and engineers who designed on drawing boards and never handled the material used for construction.

The Art Deco style is an important expression of modern architecture of the early to mid-20th century. A large number of buildings were built in this style well into the 1960s. After 1947 in independent India, Jawarharlal Nehru, educated in England, turned to Le Corbusier to initiate an architectural model that was reflective of Nehru's vision of an industrial-

ised India. Le Corbusier's design for the city of Chandigarh became the symbol of modern Indian architecture. In the 1950s, India followed the socialist model of government and embarked upon huge infrastructure projects, which included the construction of government office buildings and residential schemes. Corbusian modernism was unqualifiedly adopted for more than two decades.

It was only in the 1980s that modernism in its Indian avatar was recognised as being inadequate to the diverse realities of Indian society. The ancient Indian past could not be ignored in architecture because the ancient past lives in the present. Modernism needed to be appropriate to the temporal progression of the ancient past. Hence architects like Raj Rewal, Charles Correa, Balkrishna Doshi attempted to reconcile modern architecture with the traditional identifications of Indianness bringing about a 'modern Indian' architecture – another idea in the field of architectural expressions over the millennia of Indian civilisation.

Meanwhile, architectural exploration within the traditional realm continued in different parts of the country. The temple mandir in Auroville designed by Roger Anger dispensed with ritual ideology, as do a number of other buildings that followed. Baker's work in Kerala is low cost, self-help, culturally and climatically responsive as can be seen in his Centre for Environmental Studies. Satish Gujral's Belgian embassy in New Delhi is sculptural with connotations of Hinduism. These are just a few examples of the diversity of architectural expressions in India built in the last couple of decades.

A major event in Indian history took place in the 1990s when the government abandoned the socialist project and adopted a liberalised economy, integrating the Indian economy with global realities. This "liberalisation" had a huge impact on urban Indian architecture. Corporate architecture with global finance became a significant chunk of architectural activity with its glass and aluminum façades and modernised expressions. Architecture of the retail industry became a significant part of construction activity. Architecture in India was now being governed by economic realities. The era of socialism with its state-controlled



Jawahar Kala Kendra arts center, Jaipur, Charles Correa — Hiranandani Gardens

mechanisms was gone. Demand, supply, and profitability became the determinants of architecture.

Alongside the architecture of corporate and retail buildings there is another huge industry of housing. Migration to urban centres increases the demand for residential accommodation, raising prices of property significantly. Residential property developers are growing in number and packaging their buildings to attract buyers. Ornamentation derived from classical European architecture adorns huge residential buildings. In cities like Mumbai such buildings are fairly commonplace. Hiranandani Gardens by architect Hafeez Contractor is one such project.

Simultaneously, the ideas of modern Indian architecture continue to exist as do traditional architectural expressions (in religious buildings and rural dwellings). A number of other expressions contribute to the creation of a rich plurality in the built environment of India. In my opinion, if not for the spiritual concept of tolerance of ancient India such rich plurality would not exist. This ancient spiritual concept of tolerance will continue to be open to interventions in the future while adapting them to suit the Indian user. Furthermore, with the Indian government's acceptance of World Trade Organisation's General Agreement on Trade in Services (GATS), the country is now open to foreign architects to practice. This will add to the plurality, making Indian architecture more diverse and exciting.

The socio-cultural determinant In his book *House Form and Culture*³, Amos Rapoport argues that house form is principally determined by socio-cultural factors of the parent society, and then by pragmatic considerations of economics, climate, materials, technology and so on. It appears that a large part of architecture in India follows this theory. The ancient Indian architectural text of Vastu Shastra is widely used in modern Indian architecture for planning houses, residential complexes, office, commercial, industrial and other building types.

The principles of Vastu Shastra regulate planning and design specifics from town planning to the furniture layout of a room. The stipulations are said to be governed by ancient

empirical knowledge of the human body and its relation to the earth and the cosmos. Following these stipulations, as said, ensures overall human well-being. Hence, a person with a belief in Vastu Shastra will choose a plot of land and plan the functions and elements of a building using the principles of this text. Architects and clients consult specialists in Vastu Shastra and then agree upon a design. The belief in this ancient body of knowledge is experiencing a rapid revival.

Raj Rewal offers another approach to socio-cultural architectural design in his work. Rewal has identified several elements of traditional architecture that are multi-functional and multi-purpose, i.e. they are social and cultural spaces, climate responsive and traditionally icons of community identity. In the urban fabric, building clusters, courtyards, streets, gates (the gateway as an element that defines the inside from the outside) and roof terraces comprise the six elements of traditional architecture. Rewal uses the courtyard as a place where social counters and cultural activities may take place. In his work, the courtyard is a light well and an effective ventilation strategy for hot and dry climates. In the Central Institute of Educational Technology at New Delhi, Rewal abstracts the traditional *chhatra* (an architectural kiosk on the terrace providing panoramic views) into a modern aesthetic exemplifying a traditional icon of local identity.

Rewal alludes to the ancient Indian art theory of *Rasa*, a Sanskrit word that approximates the English word 'mood' but in a more heightened sense. It should not be confused with "character." The idea of *rasa* in architecture is interpreted as an insertion of a singular and unique experiential aesthetics, which is in conformity with the function and purpose of the building. The aim is to make architecture not only functional but also aesthetically pleasing to the visual and tactile senses in a way that conforms to the function of the building. The incorporation of this concept also makes a connection to the culture of the Indian architects, like Charles Correa, prefer to use cultural references in their buildings. For the Jawahar Kala Kendra, for example, he used a mandala (a geometrical representation of the world⁴) of nine squares abstracted as a plan imagery of ancient Hindu myth.



Central Institute of Educational Technology (CIET), New Delhi



Sohrabji Godrej Green Business Center, Hyderabad

Socio-cultural design is widely prevalent in the folk architecture⁵ of rural India. For example, the role of women in society determines women's areas in a house. The decorative patterns and colours used to adorn a house have deep cultural significance. Some of these adornments are used in urban Indian houses, too. Socio-cultural elements and spaces continue to play an important role in determining architecture in India. This strong Indian identification forms an integral part of traditional and modern architecture in India.

Sustainable architecture – an ancient Indian tradition

Ancient Indian spiritual thought integrates humans with the cosmos presenting an understanding that the processes of the cosmos are directly related to human existence. With this understanding, ancient Indian civilisation has always respected its environment. Typical principles include climate-responsive design, use of local materials, use of sustainable materials, water harvesting and others. Climate-responsive architectural design is especially sophisticated with thousands of years of refinement. Unfortunately, this knowledge seems to have lost its significance in the last 50 years or so.

Today, however, a number of architects are combining traditional methods and principles of sustainable design with modern methods and principles. One example of such a combination is Karan Grover's CII Sohrabji Godrej Green Business Center (CII-Godrej GBC) at Hyderabad. The building combines traditional Indian design principles of sustainable architecture with the United States Green Building Council's (USGBC) Leadership in Energy and Environmental Design (LEED version 2) framework. A number of traditional Indian principles of sustainable design already are included in the LEED framework like the use of local and sustainable materials and water harvesting. Other traditional principles used by Grover include the use of wind towers for catching wind, tunneling it through its shaft, thus cooling and treating it (artificially, in the case of the CII-Godrej GBC) before circulating it in habitable spaces.

The design around a courtyard is another climate-responsive feature. The courtyard helps in the use of artificial lighting, creates shade due to its mass and facilitates stack ventilation.⁶ It is CII-Godrej's objective to collaborate with the USGBC to modify the framework with Indian knowledge input so that it is applied to Indian conditions. Also, it is CII-Godrej's objective to propagate the revised LEED framework to India and Asia in an effort to make the CII-Godrej GBC the centre of Asian green building activity⁷. With these conditions, sustainable building design is being instituted in modern architecture of India today. Obviously, the future of modern Indian architecture is likely to be green in

Conclusion Due to their spiritual and cultural roots, millennia-old architectural principles continue to be relevant and continue well into the future. I have identified traditional architectural design, socio-cultural determinants of sustainable design as significant features of the past, present and the future of Indian architecture. The plurality of contemporary Indian architecture makes it a rich field for future explorations and innovations. Some of the determinants are "Indianising" modern and urban architecture, thus helping a modern Indian architectural identity evolve. India is bound to become the centre of modern sustainable architecture in Asia.

I find all three features very encouraging for the future of Indian architecture. Klaus-Peter Gast's book must be read with this background in mind, as it aims to capture and highlight other features of contemporary Indian architecture. The collection of projects is representative of today's diverse Indian architectural directions, which are unique. India's past is a living reality that, most likely, will shape the future of India's architecture. Klaus-Peter Gast's book will benefit anybody interested in the contemporary architecture of India.

1 Khosla, Romi. *The Loneliness of a Long Distant Future: Dilemmas of Contemporary Architecture*. New Delhi: Tulika, 2002.

2 Hinduism came to be identified as a religion only after the faith of Buddhism came into India in the 8th century AD. See Singh, Jaswant. *A Call to Arms: In Service of Emergent India*. New Delhi: Rupa & Co. 2006, p. 82.

3 Rapoport, Amos. *House Form and Culture*. NJ: Prentice-Hall, Inc., 1969.

4 Lang, Jon, Desai, Madhavi, Desai, Miki. *Architecture and Independence: The Search for Identity – India 1880 to 1980*. Delhi: Oxford University Press, 1997.

5 I use Amos Rapoport's understanding of the term "folk architecture" which alludes to architecture of the common people. See Rapoport, Amos. *House Form and Culture*. NJ: Prentice-Hall, Inc., 1969. p.2.

6 Jadhav, Rajratna. www.architectureweek.com/2004/0922/environmental/

7 www.greenbusinesscentre.org/grn/events/

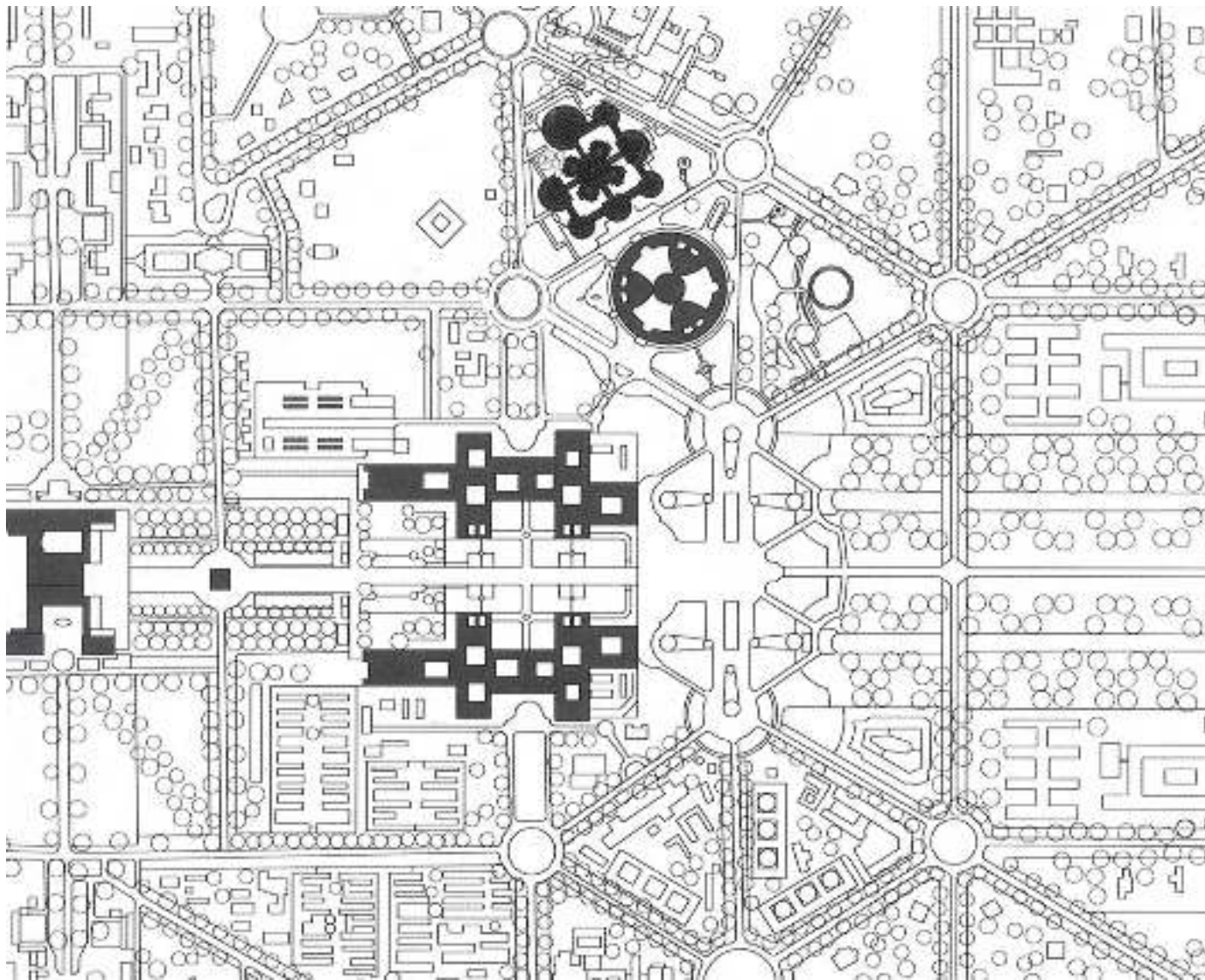
At midnight on 14 August 1947, India's first prime minister Jawaharlal Nehru proclaimed "the ending of poverty and ignorance and disease and inequality of opportunity."¹ India had gained her independence after over 200 years of British rule. Mohandas Karamchand (Mahatma) Gandhi's compassionately non-violent struggle against repression and occupation of a once free nation had been a triumphant success. Since the 16th century, at the time of the Muslim conqueror Akbar, the people of the sub-continent had been tolerant and ready to communicate, able to live together, vigorously active and ready to exchange ideas. From time immemorial, pluralism and the acceptance of many different ways of thinking had been part of a country that called itself Bharat and later Hindustan, derived from the river Indus. This part of the world had had to tolerate conquest not just since the time of Akbar, but even since the days of Alexander the Great, but it usually responded with astonishing calm and lack of violence. India always absorbed new things that came upon her unbidden, and used them for her own ends. Things alien became Indian and part of the national heritage. This is where Indian globalisation began, earlier than in any other country, without Indians ever having passed beyond their own borders: India was anti-imperial and never waged expansionist wars. And so it remains to be asked whether these extraordinary qualities have survived over 200 years of occupation and whether Nehru's emphatic proclamation has become reality 60 years later. The "largest democracy in the world" that is now establishing itself adopted a socialist system modelled upon the Soviet Union, an ideal of justice ac-

ording to Nehru, with a central command economy on five year plans. As Gandhi had been assassinated months after independence, he was no longer able to put his idea of an India of villages, largely self-sufficient and with small industries. Nehru implemented his ideas, but compromisingly, and relations with the Soviet Union reached their high point. His policies were followed in principle by his daughter Indira Gandhi and later by her son Rajiv Gandhi. The Nehru doctrine was not abandoned until 1991 when a new economic policy was introduced by the then prime minister and former finance minister Manmohan Singh. Since prime minister Narasimha Rao. The gateway to the world was opened, the end for self-sufficient economic development of this mysterious land beyond the Himalayas, then unknown to the rest of the world. When India opened itself up to the global market, this was the second turning-point for the country in the 20th century. India regained their old freedom in private and commerce and a gigantic, hitherto untapped pool of intellectual talent since been able to develop freely and use its creativity. This laid the foundations for an explosive economic growth in the last 15 years. Ultra-rapid technological progress led in co-operation with international firms, with concerns suddenly setting new standards. But crises were raised as well: could and should India, a country that has been anchored culturally for millennia, expose herself to the influences of this kind? Should the materialistic and individualistic Western world of thought and action become the standard for an India based on spiritual values? I



Jawaharlal Nehru

— The Waking Giant



New Delhi, government buildings

degree of calm set in, as each individual's standard of living was and is growing. India will always be in a position in her history to use the new for her own ends, without abandoning her values.

But the desire for global markets led, as in many other countries, to protests against globalisation and the multinationals' expansion of power. This represents an opportunity for a novice to make a very conscious move against this danger of uncontrollable power, offering a personal contribution to a more balanced approach. However, a not inconsiderable social asymmetry has to be set against the large growth rates of 8% at the time of writing and 7% predicted until the year 2025.² The caste system, the degenerated hierarchical social structure according to birth, is only one aspect of this, generally there is a lack of willingness to accept anyone in a different social position. A democratic balance operates in politics, but India's social and economic life is rife with imbalance. So a demand must be made for more practical and less theoretical democracy, like for example the realisation of the right to education and employment for all. Women are still the key here: over 60% of them have never attended school. Also, the political response has produced a contrary reaction: the controversial quota regulation for the "scheduled castes", which is intended to help the so-called untouchable caste to a greater legal share of places in education, has led to new social injustices. Rural areas contrast starkly with the big cities in educational matters, and contradict the realities of economic power. Furthermore, the legal system inherited from the British, like the whole bureaucratic system, is an extremely cumbersome piece of machinery, making law and justice unjust and time-consuming: a criminal offence can take about ten years to be dealt with.

The caste system in particular is a spiritual paradox regardless of religion, as everyone is equal before God. This has always been proclaimed in tolerant Hinduism, which is not a religion, but a way of life, as demonstrated for example around 1900 by the monk Swami Vivekananda, who was particularly open to Western countries. About 80% of the Indian population are followers of Hinduism, but they are by

no means a homogeneous, strictly disciplined community, like for example Islam. In fact it is a multi-world faith community, of a complexity that is not to be grasped, ranging from atheism via the majority of the orthodox-nationalistic Hindutva. While the orthodox, probably the majority of Hindus, are favourably disposed towards the innovation of contemporary Indian culture, the orthodox believers, who live according to the strictest traditions, range from sceptical to disapproving. What they all have in common is their reliance on the "ancient knowledge" of the Veda, a philosophical moral code for explaining the cosmos and the world. It has been interpreted in countless ways and was developed many ages ago.

A whole range of religious or even ethnic subgroups, including Muslims and Christians, live in this land of many languages, whose population has just passed the billion mark. With a growth rate of 13 million people per year, it is understandable that diseases which have been eradicated elsewhere like polio, typhoid or malaria are here not yet under control. With a population of this size and many different groups of people, disintegration could be expected. But when what was officially the first Indian atomic bomb exploded in the north-western desert area in 1974, it was to be interpreted as part of a national, all-unifying confidence. One of the men involved in developing the bomb, the high-ranking scientist Dr. Abdul Kalam, was to become president of the country. National awareness united different Indians, so the disintegration that was predicted after independence, the "balkanisation" of the country never started to come about. The nation stands united today, and Nehru would certainly have acknowledged this with particular pride.

The following part is devoted to the achievements of modernist architecture in India, as part of the country's contribution to culture, performed especially by the architect Le Corbusier, the poet and Nobel laureate Rabindranath Tagore (d. 1941) and the director Satyajit Ray, among others, with all the impact they made over the last century. Then selected examples will introduce



New Delhi, view of the government buildings



Calcutta, Victoria Memorial — Mumbai, Victoria Station

recent trends in contemporary architecture as part of the cultural progress that is also feature of India.

The development of Modernist architecture in India The concept of "Modernism" in 20th century Indian architectural development remains difficult to grasp, as it was used within numerous stylistic developments, following the spirit of the day. Starting with the efforts made by Europeans in the 1920s, the idea of "modern architecture" as a revolutionary and innovative force started to make cautious headway in India in the early 1930s. But at that time any Western thought and practice introduced as a British import was seen as "modern", as India had no uniform independent architectural movement in the early 20th century. Ideas influenced by the Bauhaus and Le Corbusier and then brought to India were modern, and the subsequent Art Deco movement, influenced by both regional and exotic motifs, also counted as modern. Even neoclassical architecture was still pronounced modern into the 1950s and even the 1960s. But Modernism in India was more like an overall approach to life. It meant designing the world positively, improving it, doing better than the required standard, being progressive and inventive, and this certainly included great visionary minds like Tagore and Nehru. British architects in India felt themselves to be modern, because they could work within an experimental field, almost without constraints and regulations, with an unusual degree of freedom. These various trends will now be discussed in a little more detail.

One consequence of the consolidation of British colonial power in the 19th century was that public buildings in particular became the centre of interest. Great educational institutions like Bombay University in 1870 or stations as gateways to the world, like Victoria Station in the former Bombay in 1887, or also important monuments like the Victoria Me-

morial in Calcutta in 1906, were prestigious structures for a self-confident class of British architects who wanted to demonstrate the superiority of European culture. This was particularly evident when the seat of government moved from Calcutta to Delhi and in 1912 Edwin Lutyens and Herbert Baker were commissioned to realise the government buildings in "New Delhi." The architects designed a modern urban street complex that was essentially alien to Indian traditions, with a grandiose geometry of axes and avenues, and above all two symmetrical administrative buildings flanking the view of the viceroy's palace. Lavish colonnades, verandas, tall, slender windows, *chhajjas* (wide overhangs) and cornices *jaalis* (circular stone apertures) and *chhatris* (free-standing pavilions) were used at the time as decorative elements from typical historic Indian architecture. The viceroy's palace has a dome reminiscent of a Buddhist stupa in Sanchi. Even though Lutyens and Baker combined classical European and Indian elements, the complex was modern for its day, with its two-dimensional wall surfaces, décor and austere geometry in the case of the particular. The seat of government was not opened until 1927, after a building period of almost 20 years. The modernist period lasted well beyond the 1930s, above all because of the influence of the Indian Institute of Architecture, which existed since the 1920s, a British institution first founded by a Briton, Claude Batley. His theories were based on a mix of Graeco-Roman, but also of Indian, classicism. The British influence led to the foundation of the modernist school, whose major exponents included Sudhakar Das and Thompson, for example, and Ganesh Deolalikar, who worked up until the 1950s. His Supreme Court in New Delhi was one of the Lutyens-Baker buildings down to the last detail. The conservative, so-called revivalists also included B.R. Nanda, who with his monumental historical Vidhana Soudha g



Bangalore, Vidhana Soudha — New Delhi, Garrison Church — Indian Art Deco house

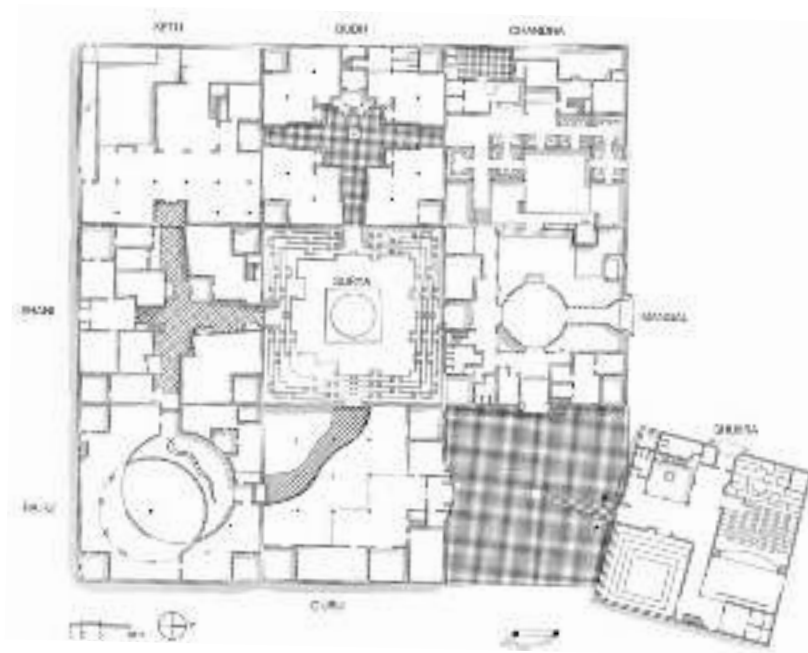
building in Bangalore built in 1952, reminiscent of Indian palace complexes. Colossal columns, Mogul domes, symmetry and monumental mass were evidence that historical European-Indian forms were being retained. But a new thinking had long since taken hold, based on the reduced formal language of the "international style," but also attached to European abstract Expressionism, as can be seen in Arthur G. Shoemith's St. Martin's Garrison Church in New Delhi of 1931, whose volumes loom like pure prisms of solid mass thrusting into one another. De Stijl, the important Dutch movement that ran parallel with the Bauhaus, had very little influence on India, however, even though Willem Marinus Dudok did realise some buildings there. In the early 1940s the austerity of what was later called classical Modernism started to be mixed with Expressionism and with decorative motifs, and above all fluent lines, often curved, markedly horizontal and vertical: the highly influential Art Deco movement, which spread over the whole of India, made a triumphant entry into the world of Indian architecture. France, but particularly America, stood model for this movement, whose architects raised Art Deco to an art form of great virtuosity. "Streamlined architecture," as Art Deco was also known, developed its distinctive form partly from the technical achievements of its day, the rounded shapes of aircraft and cars. Then Frank Lloyd Wright discovered the decorative world of the Mexicans and of the Aztecs and Mayans. Their essentially geometrical motifs, along with associated devices like palms, aircraft and sunbeams, finally made their international debut on the Art Deco stage. Indian Art Deco was also increasingly mixed with regional applications, leading to some lavishly decorated façades. In an age without television, architects were particularly fond of the generally popular cinema buildings, where they could create Art Deco designs with a monumental gesture. Many of these picture palaces

have survived to the present day, providing evidence of a great architectural phase.

At the time of independence in 1947, India had about 300 trained architects in a population of then 330 million, and only one training institution, the Institute of Architects in Bombay. Those who could not study abroad, preferably in the USA, as some of the heroes, especially from the Bauhaus, like Mies van der Rohe, Walter Gropius and Marcel Breuer had emigrated from Fascist Germany. The first generation of Indian architects came back from America with a new optimism, but also with the British influence at the Bombay school, unable to offer their urgently needed services to a fast-growing country. One of them was Habib Rahman, who studied architecture at the MIT in Boston, another Achyut Kanvinde from Bombay and Gautam Sarabhai, who worked with Frank Lloyd Wright. Thus the influence of the Bauhaus masters came to India a second time, this time directly via their pupils, with what over-functionalistic interpretations were common to Kanvinde in particular. But at the same time a new form of Expressionism was developing in South America, of for example Felix Candela or Oskar Niemeyer, who exploited the technical possibility of being able to bridge large spans. These impressive constructions stimulated young Indian architects to endow the rigid rationalism of the German masters in America with fluent form. One of the most prominent pupils returning from the MIT in Cambridge/Boston in the 1950s was Charles Correa. He had worked under the architect Yamasaki in Detroit, who later designed the Von Neumann Center in New York. Correa came back to India in the 1950s, a time when the most important architect of the 20th century, Le Corbusier, had already realised his greatest project in India. Le Corbusier was invited to India in person in the early 1950s and built Chandigarh.



New Delhi, supreme court — Indian Art Deco house



Jaipur, Jawahar Kala Kendra art center



Chandigarh, parliament chamber — Chandigarh, administrative offices



IIM courtyard complex with library — Kanchanjunga apartment building

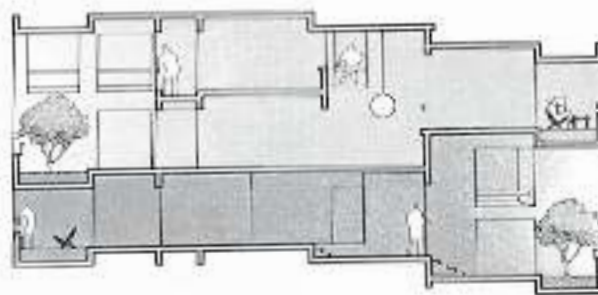
capital of the state of Punjab. Le Corbusier's visionary powers, which he proved in urban developments from the 1920s onwards, seemed to be precisely the right person to Nehru, who said that India needed "a slap in the face." Working with his cousin Pierre Jeanneret and the architects Jane Drew and Maxwell Fry, Le Corbusier realised the entire urban structure, designing himself the government building, the Capitol. His *béton brut*, the unrendered surfaces of the buildings, still showing the marks of the rough shuttering, and the expressive and sculptural effect made by *solitaire* monuments spread over a large area, came as something of a shock to the Indian architects, who had found a new hero for themselves from now on.

Le Corbusier's messages became the new gospel for the next generation, who recognised a new intellectual dimension in them. Le Corbusier was commissioned to build more villas and a museum in Ahmedabad. Here he had an Indian at his side who had already worked for him in Paris, Balkrishna Vitaldas Doshi. It was Doshi who in the early 1960s got in touch with Louis I. Kahn in order to develop the Indian Institute of Management in Ahmedabad. Kahn was impressed by the offer and realised the project during a period of over 13 years. Kahn was the next significant architect for India: his structures built on pure geometry to illustrate inherent order, his turn to a pictorial language for architecture that went beyond functionalism and the use of rough brick for the façade in order to express the nature of the material, added yet another dimension to Indian architects' experience.

Charles Correa developed his work when these two towering 20th century masters were both building in India. His 1963 memorial for Mahatma Gandhi in Ahmedabad, which is reminiscent of Kahn's design for the Trenton Bath House, marks the beginning of his mature work. The most important

buildings after that were his Kanchanjunga high-rise apartments in Mumbai, built from 1970–1983, then the government building in Bhopal, 1980–1996 (see p. 21), the art centre in Jaipur, 1986–1992 where he discovered the spiritual dimension of Indian thought and integrated it into his work. Correa is the most important representative of this generation and still India's most significant contemporary architect. Alongside Doshi and Correa, Anant Raje is another major architect of this generation. Raje realised the Indian Institute of Management buildings as Kahn's right hand and added to the spirit of Kahn. His work is clearly shaped by Kahn's structures, but he interpreted them independently. Raje belongs in this group. Educated in Delhi and London, he was influenced at an early stage by the Japanese Metabolism. He later found his own identity in India's history, proposing a concept of a Modernism based on tradition. His library (see p. 42–49) is one of the outstanding Indian architectural projects of the last ten years.

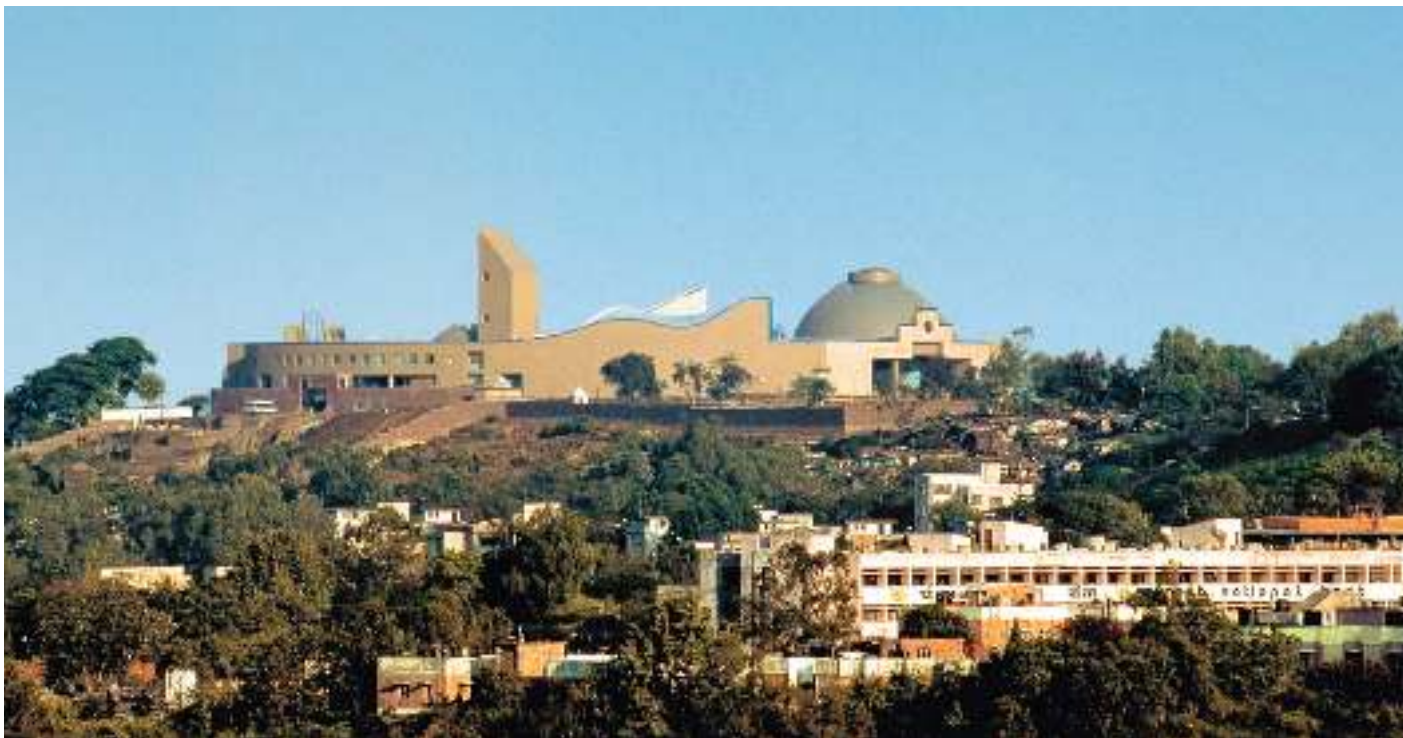
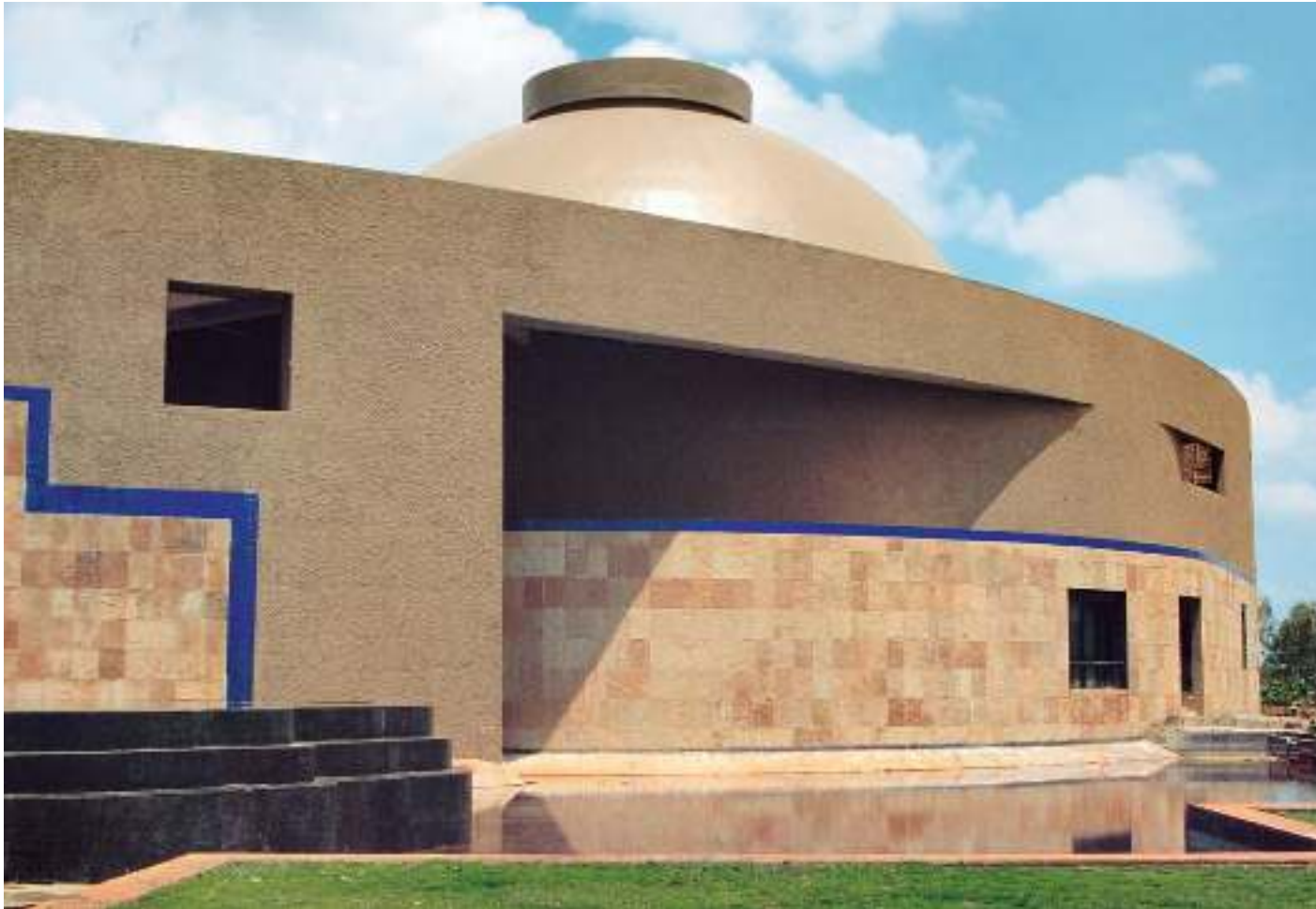
The selection of architects from the younger generation introduced here does not claim to be comprehensive within the limited scope of a publication. Architects who are not mentioned in any more detail but have certainly made a significant contribution are Laurie Baker in Kerala whose life's work follows ecological and sustainable criteria in building and above all to people in lower income groups. Other approaches come from architects like Anil Laul, S.K. "barefoot architects" in Rajasthan who work together with many people employing their craft skills in the construction process and who use only locally available materials. This book presents a varied spectrum of building types and architects with different approaches to illustrate current Indian architecture, with aspects of ecology and sustainability playing an increasingly important part.



Kanchanjunga apartments, section

- 1 Amartya Sen, *The Argumentative Indian*, p. 193: "...the ending of poverty and ignorance, disease and inequality of opportunity".
- 2 Shashi Tharoor, *India – From Midnight to the New Dawn*, New Delhi 1997, p. 360.

— Buildings (1993–2006)



Lower house chamber and exterior wall — Position of the building in town

A building as prominent as the one for the new Vidhan Bhavan in Bhopal in the state of Madhya Pradesh had to take a form imbued with an especially timeless symbolic force transcending functional considerations. Charles Correa and his colleagues actually won the competition in 1980, but building did not start until 1983. After political turmoil, completion of this major building project was delayed until 1997. Realising this extraordinarily remarkable design demonstrated a new self-confidence not just for the individual state and its local government, but for the whole of India, even though Correa had completed his intellectual work on the project long before the phase of economic upswing, India's economic miracle. The new sense of self-awareness was quite obviously present in a design that pulls the whole complex history of the country into focus and conveys it most impressively, in the spirit of the times and yet timelessly, in its realised form.

This can also be measured against the fact that it is very difficult to make a precise estimate of the date the design came into being, as it completely eschews fashionable categories and has lost none of its expressive force, indeed its magic, in 2006, 26 years after it was developed. Correa's synthesis of elements that are deeply rooted in tradition and abstract-modern creative force does, in this intensity, indeed remain a typically Indian or even Asian phenomenon. But it could easily become a model for other cultures: here cultural history is perceived and used in the present as a process of future continuity. Correa's design shows the very presence of history as a respected heritage in India. His design process

is still intelligible: not primarily as an analysis of optimisation generating a form almost of its own accord as a prefigurative approach in which the dominant form worked out first. So following Western linguistic theory, the so-called Postmodern concept was being used here. Originally the starting point for the design was the traditional Mandala, a square as a symbol of the cosmos, divided into nine additional squares to symbolise seven real and two mythological planets.

This ancient motif, much cited in the pages of the book, is one of the great primal signs of Indian architecture. It has been constantly varied over the centuries, but always within a spiritual frame of reference. This symbol developed into a preferred sign in Charles Correa's formal vocabulary that he used directly and expressively in his design of the cultural centre in Jaipur. But here in Bhopal the motif mutated into a fragment: the architect throws a circle around the square, making the outer corner of the circle incomplete. Thus the circle dominates, as ultimately the outer wall surrounding the building. Within this circle the functional areas are subordinated to the Mandala structure: the great parliamentary chamber for the lower house as another circular figure with foyer; the small circular area for the upper house as a diagonal square; the cabinet area, hall, courtyard and offices; the library; the administrative area with ministerial offices and a large courtyard; a purpose hall; the courtyard for the public and the entrance at the heart of the project. The symmetrical axes are defined by three main entrances for the various users.



Sketch of the building with lower house chamber

— Charles Correa and Associates
Vidhan Bhavan Government Building
 Bhopal (Madhya Pradesh), 1997

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