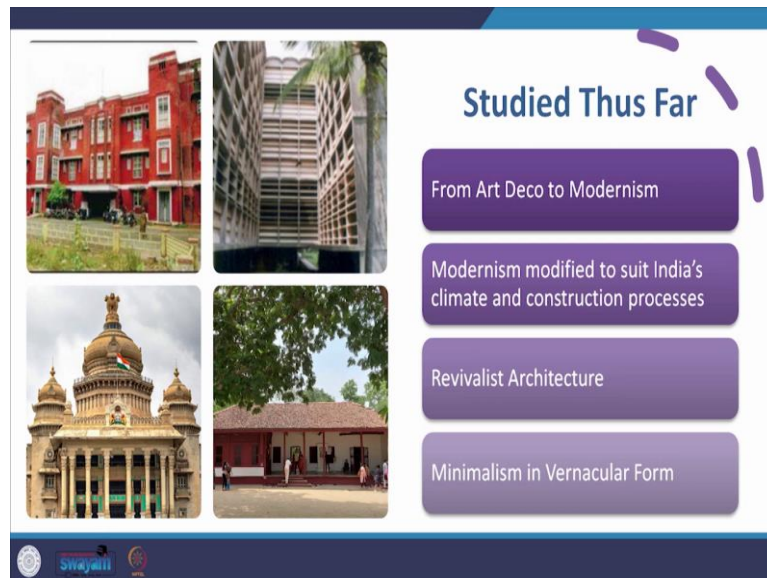


**Modern Indian Architecture**  
**Professor P S Chani**  
**Department of Architecture and Planning**  
**Indian Institute of Technology, Roorkee**  
**Lecture 08**  
**The First Generation (1945 - 70) - Part 1**

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Hello students we will continue our study of modern Indian architecture and today we will be starting with the series called the first generation from 1945 to 1970. We have already seen a transition of architecture from pre-independence to post-independence and in that what we studied thus far is how architecture started evolving from art deco to modernism because modernism had already established firm roots in Europe and America and it was now moving to other parts of the world and India was a part of the global impact of modernism.

We had for example seen modernism and its relationship to tropical architecture with the example of Golconde by Antonin Raymond and so modernism that is modified to suit India's climate and construction processes, this is a very important strand in the development of modernism in India because we will continue to see that all the way into the 21st century, we also looked at revivalist architecture with the examples of Vidhana Soudha et cetera and minimalism as it appeared in a vernacular form in Sabarmati ashram.

We had also seen the example of Shanti Niketan which was more of a revivalist style but it had also an eclectic mix of neoclassical features as well as traditional Indian features.

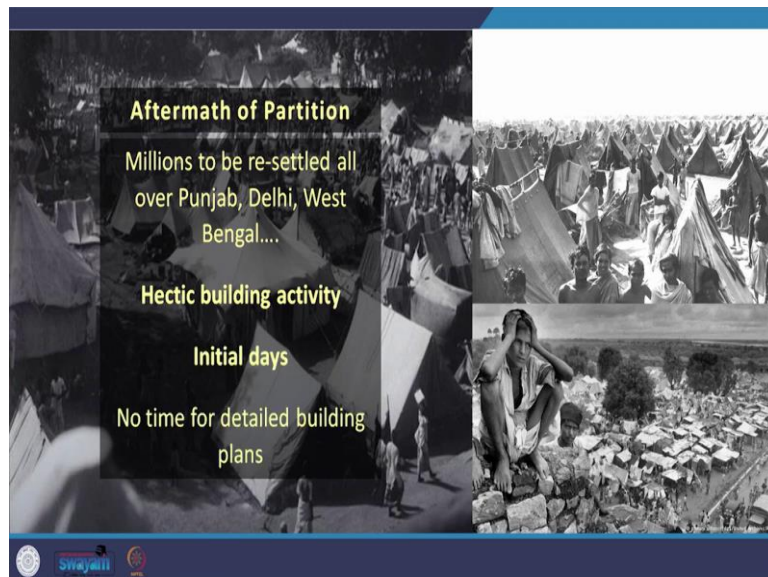
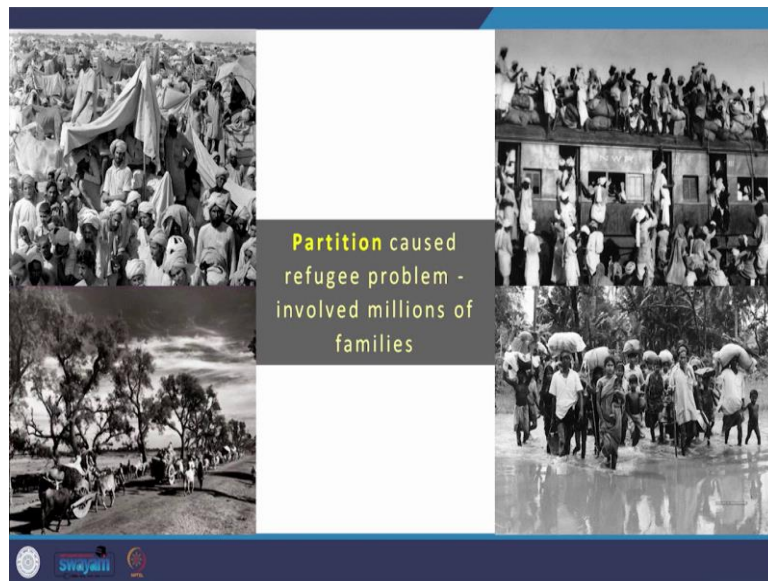
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Now starting with this series today we go back again to the time of India's independence, there are two or three watershed movements in India's history, we are relating these two three moments vis-a-vis architecture, one of course is the independence, 1947, India becomes independent then we have the second watershed movement that happened around 1991 with liberalization.

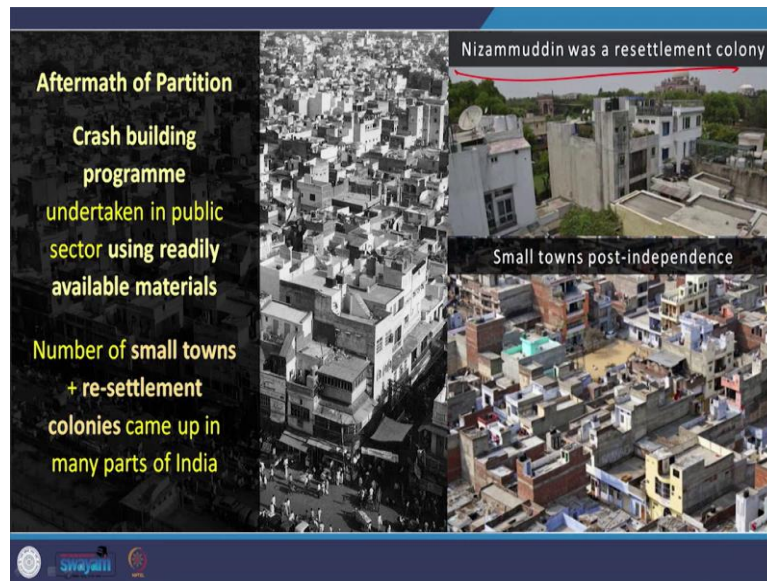
So these two very fundamental moments brought about a paradigm shift in architecture I would not say that was a complete changeover but there was a major awareness something fundamental had changed in India, changes that had begun in pre-independent times gathered momentum post-independence, now independence brought a range of problems, opportunities, expectations and dreams in front of an independent India with a very young population.

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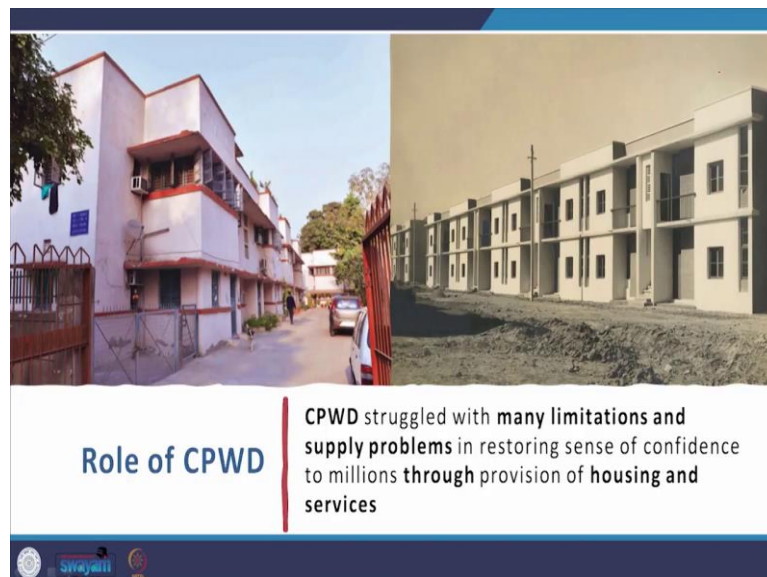
And but on the other side was the tremendous tragedy of the partition that caused an immense refugee problem involving millions of families coming into the country and the aftermath of the partition was that millions of people had to be resettled all over Punjab, Delhi and West Bengal and there was hectic building activity, in the initial days there was no time for detailed building plans.

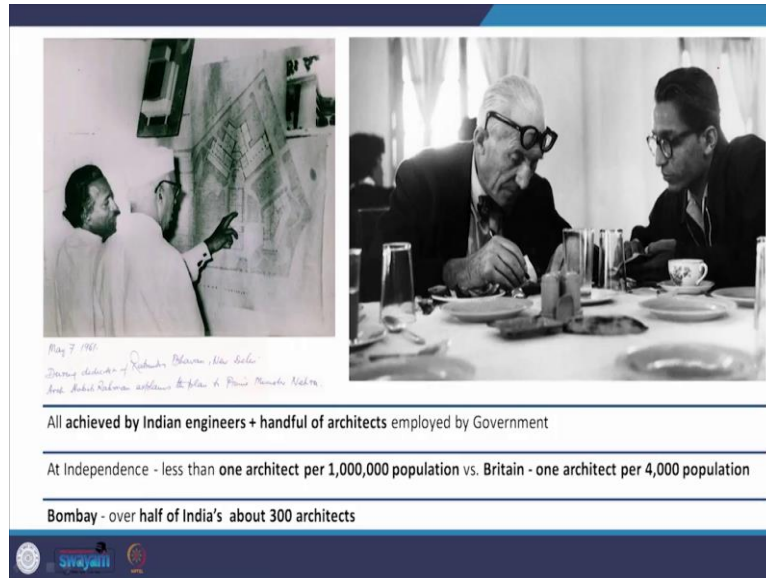
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And again the crash building program was undertaken by the public sector predominantly in the CPWD using readily available materials and there was a number of small buildings of, the number of small towns and resettlement colonies that came up in many parts of India, for example we have we have in Nizamuddin resettlement colony, so in Nizamuddin we have a resettlement colony coming up and in smaller towns other parts of India post independence.

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The role of CPWD at this time was critical because it was a part of the central government, under central government control so had a very wide role to play in providing one of the most immediate requirement and that was for housing, it struggled with many limitations in supply problems in trying to restore a sense of confidence to millions through both provision of housing as well as services and all this was achieved not by a very great machinery of engineers or architects.

A machinery of engineers but only a handful of architects employed by the government and at independence if you want to see how minuscule this number was, it was only around 1 architect per 1 million people or 10 lakh people versus 1 for every 4000 in Britain. And Mumbai had half of these India's about 300 architects at the time of independence.

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Just as architects began to understand challenges lying ahead – **old debate on style erupted again**



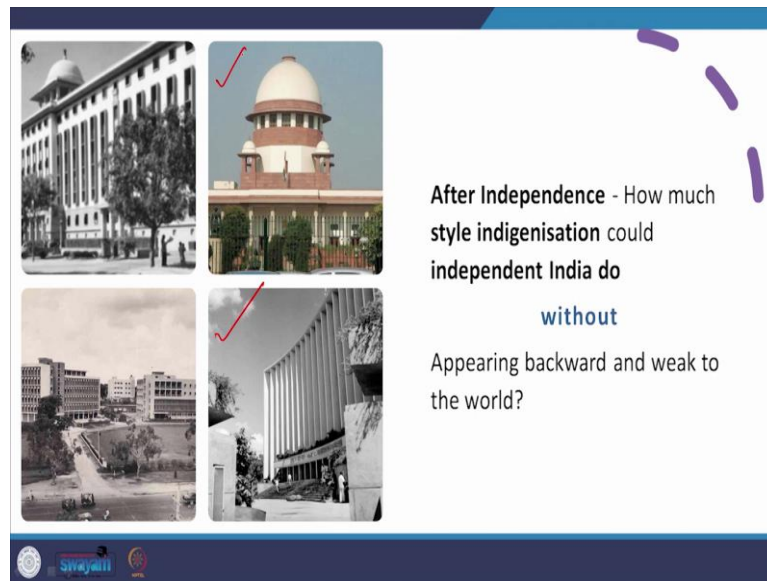
**Debate about style**

**Before Independence**  
- How much **style indigenization** could **British do** without making political concessions to 'subject people'?



And just as architects began to understand the challenges that were lying ahead one old debate erupted again and that was with regard to style, we had already seen this kind of argument being brought in front of us through the Indo-Saracenic style or the colonial style and different people trying to develop architecture using these different formats and so the debate about style post-independence just as before independent it was how much style indigenization could the British do without making wide political concessions to subject people.

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Post independence it was how much style indigenization could an independent India do without appearing backward or weak to the world that means we do go back and we do try to Indianize modern architecture that which we were getting from the West but in doing so we should not make it an architecture which was regressive but it had to be an architecture that was progressive.

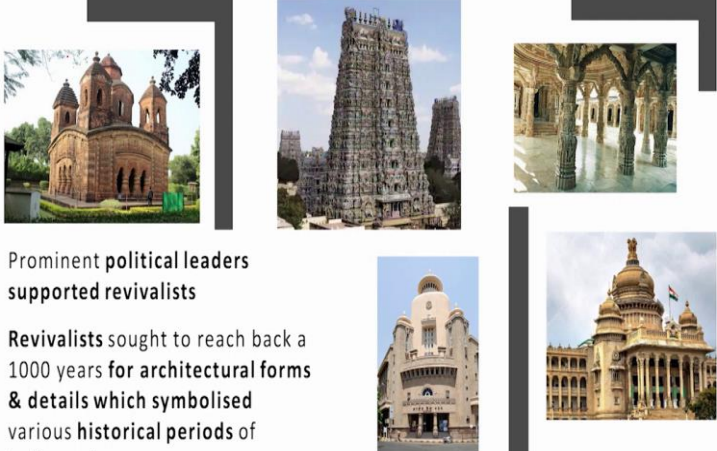
Now in some cases the modernist model was implemented as is for example in the works of Habib Rahman and in certain cases it underwent a modification in the works of for example the CPWD.

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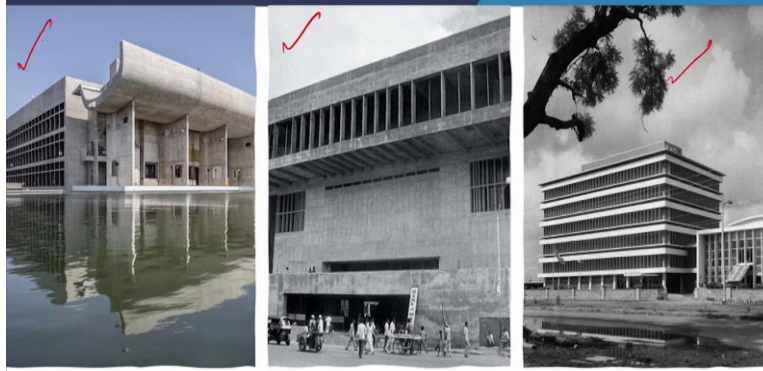
The other strand was that which we saw last time that was nationalism, a widespread sentiment at freedom and that was to be expressed or sought to be expressed through revivalism in architecture as we saw in the Vidhana Soudha and building styles from colonialism to modernism were perceived as foreign and hence anti-national so whether it was the work of Walter Sykes George, whether it was the work of Antonin Raymond modernist the Golconde ashram, these were not, they were thought to be foreign to India and what styles or what architecture was Indian was for example traditional temple architecture, historical temple architecture and this kind of derivation.

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Prominent political leaders supported revivalists

Revivalists sought to reach back a 1000 years for architectural forms & details which symbolised various historical periods of Indian culture



**Modernists**

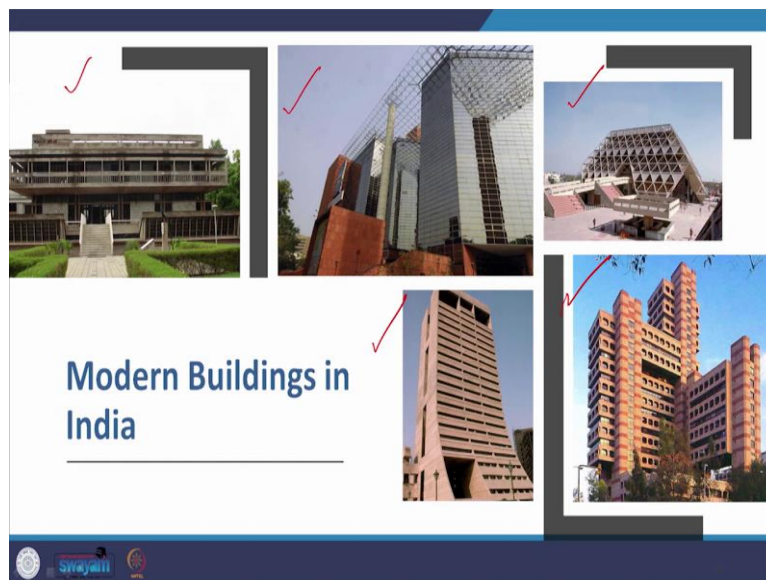
On the other side - architects who argued that architecture should be viewed in context of its times - not to be imitated

So prominent political leaders supported revivalism and revivalists sought to reach back a thousand years for architectural forms and details which symbolized various historical



periods of India and on the other hand the modernist argument was that architects, architecture should be viewed in the context of its times, it should not be imitated, so whether it was the Premabhai hall by B V Doshi, whether it was the WHO building by Habib Rahman or Corbusier's work in Chandigarh.

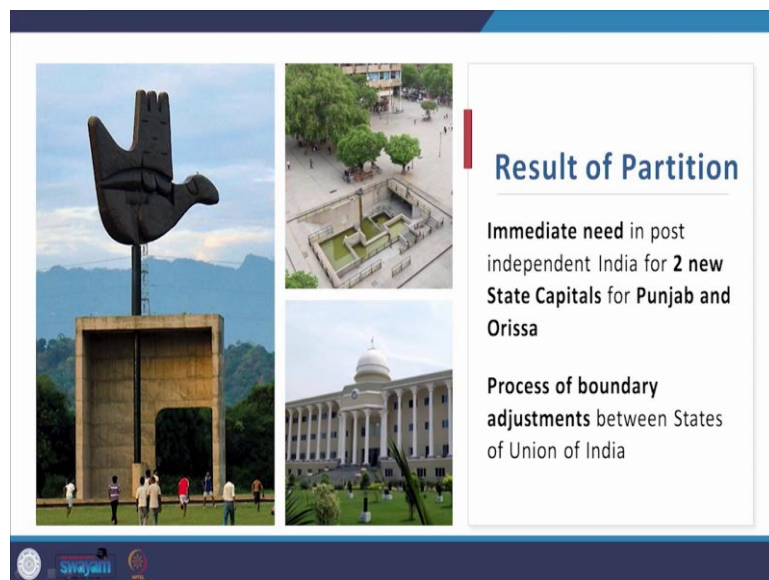
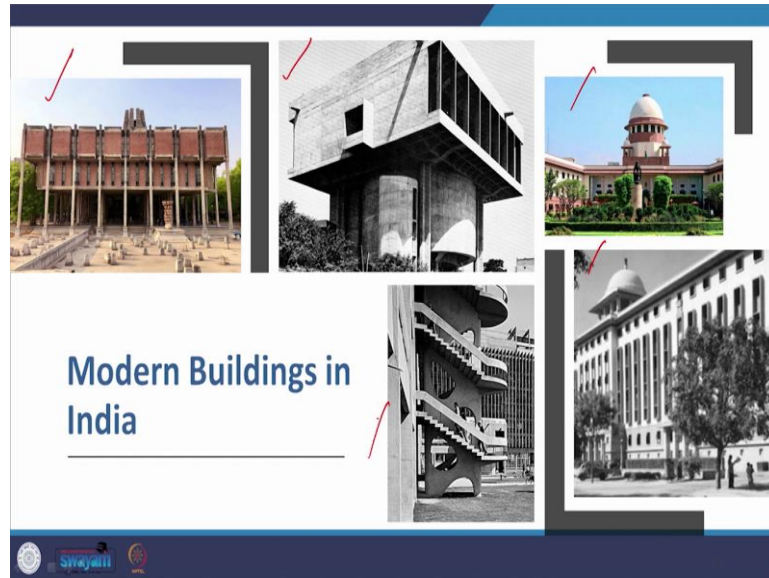
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Modern India required modern architectural symbols and forms for modern buildings or even modern monuments to express the march of free India towards economic development, so these are some of the modern iconic buildings of a modern India derived predominantly from modernist architecture, so we have Institute of Indology by B V Doshi, we have the LIC building in Delhi by Charles Correa, we had the hall of nations in Pragati Maidan by Raj

Rewal, this building it is by Kuldeep Singh in Janpath and the HTC building by Raj Rewal again at Connaught Place.

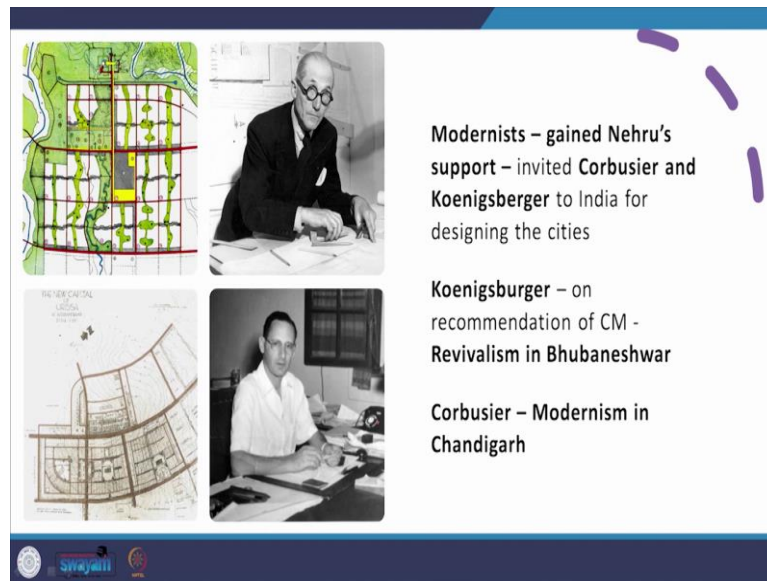
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Besides this the library building or the entire campus of IIT Kanpur, this building by Shiv Nath Prasad and then the works of CPWD and the work at IIT Delhi, all modern buildings derived from modernist architecture but in this we will go and see that later on that different strands developed over time.

Now the result of partition also was the immediate need in post India, a post independent India for two state capitals of Punjab and Odisha because of the process of boundary adjustment between the different states of India.

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**Modernists – gained Nehru's support – invited Corbusier and Koenigsberger to India for designing the cities**

**Koenigsberger – on recommendation of CM - Revivalism in Bhubaneswar**

**Corbusier – Modernism in Chandigarh**

The slide features four images: a green-tinted urban plan with a grid, a black and white portrait of Le Corbusier, a black and white portrait of Otto Koenigsberger, and a technical architectural drawing of a building's structure.



**Revivalist Influence in Bhubaneswar**

To maintain **balance between old & new towns**, Koenigsberger + Julius Vaz structures - temple like tops:

- Main Market Building
- Rabindra Mandap ...

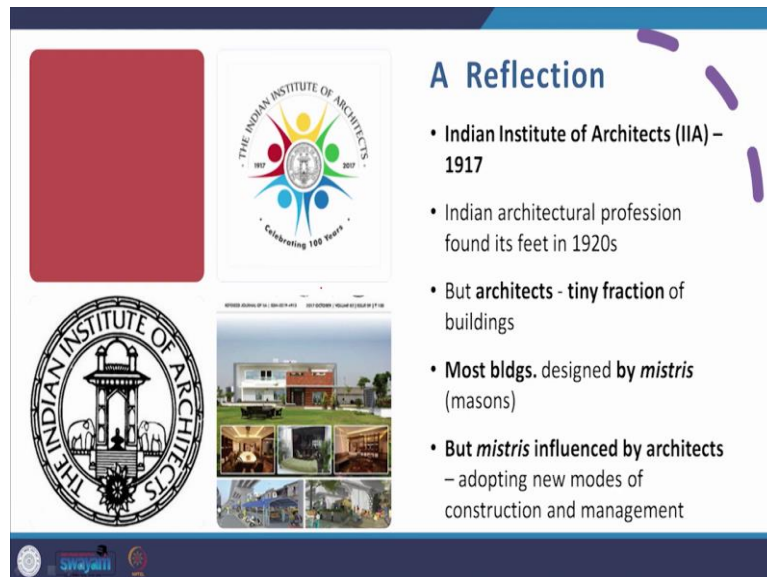
The slide includes three photographs of buildings in Bhubaneswar. Red circles are drawn around the domed or temple-like tops of the buildings to highlight their architectural style.

And so we have modernists who gained the support of Jawahar Lal Nehru and invited Corbusier and Otto Koenigsberger to India for designing these cities, Koenigsberger on the recommendation of the CM of Odisha at that time he went in for a revivalist model in Bhubaneswar whereas Corbusier went in for modernism in Chandigarh, Koenigsberger had been brought in with the idea of modernism but he modified his impact or rather this modernist style in Bhubaneswar by maintaining a balance between the old and new towns.

And both Koenigsberger and his associate Julius Vaz, the structures had temple like tops we had it in this particular building in the main market of Bhubaneswar and we had it in this public building called the Rabindra Mandap, so this form at the top though not a direct derivation from a temple form or not so evident as we saw it for example in the Vidhan

Soudha or we saw the shikhara in the the Banaras Hindu university which was very very direct inter imitation of those forms, shikhara in BHU and the vimana in the Vidhan Soudha in this case it was a derivation, it was an interpretation of the temple form.

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**A Reflection**

- Indian Institute of Architects (IIA) – 1917
- Indian architectural profession found its feet in 1920s
- But architects - tiny fraction of buildings
- Most bldgs. designed by *mistris* (masons)
- But *mistris* influenced by architects – adopting new modes of construction and management

We will again go back to a series called western architects in India and we look at these works in detail particularly the impact of Corbusier, now to digress a little bit and look at a reflection that Indian Institute of Architects IIA was established in 1917 and Indian architecture found its feet in the 1920s so the series we saw last time was from 1920 to 1950 but these architects were really designing a very tiny fraction of designed built environment.

Most buildings were being designed and executed by the mistris or masons but though it may sound as a disadvantage to the architects, one thing was still true that the mistris were also being influenced by the architects to adopt new modes of construction and management so even if the bulk of the built environment was still being designed and executed by the masons or the mistris they were also being impacted by the changing architectural scene.

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**Massive housing programs**  
(influx of refugees after Partition + increase in population)

**In this context - Modern architecture took off in India**

Swajam



**The Architectural Background**

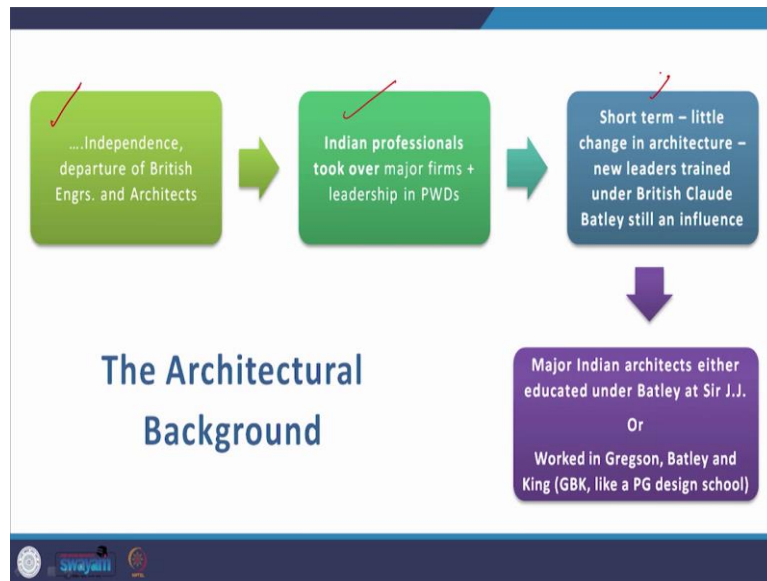
When British departed – left unfinished canvas for India to re-imagine and render in her own style

Swajam

One aspect that was right at the outset like for example this time also I told you that one of the critical requirement was for housing so massive housing programs due to the influx of refugees after partition and also because of increasing population and in this context modern architecture really took off in India.

Now when the British left India they had left behind an unfinished canvas for us to reimagine and render in the style that we wanted it to be, the canvas they left behind for example the Victoria Memorial in Kolkata or the India Gate or the Central Secretariat, what was going to be our response, how are we going to complete the canvas is the entire story of modern Indian architecture.

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Now just to give you a glimpse of the architectural background at independence the departure of British engineers and architects, so the Indian professionals took over the major firms and leaderships in the public works departments but in the short term there was little change in architecture as a result of this shift in the leadership positions in these firms and in these departments because these new leaders had also been trained under Claude Batley and they were firmly under his influence, he had a very dominant role to play not only in the architectural scene at that time but also in education because he was heading Sir J J School of architecture and art.

So the major Indian architects were either educated under back date Sir J J or they had worked in Gregson, Batley and King which was like a PG design school, the firm itself was like a post graduate design school for Indian architects.

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Both School & Firm – concern to produce architecture that was:

- Modern
- Symbolic references to India
- Suitable for existing way of life and climate



### Buildings by Claude Batley

- ✓ Traditional Indian elements
- ✓ Art Deco
- ✓ Modernist tendencies.....



So both the school and the firm, both headed by Claude Batley the concern was to produce an architecture that was modern that had symbolic references to India and it was suitable for the existing way of life and also to the climatic conditions of India, in that sense Claude Batley was very sensitive to what India needed.

So the buildings that were produced with him in charge had traditional Indian elements, there was art deco and there were modernist tendencies.

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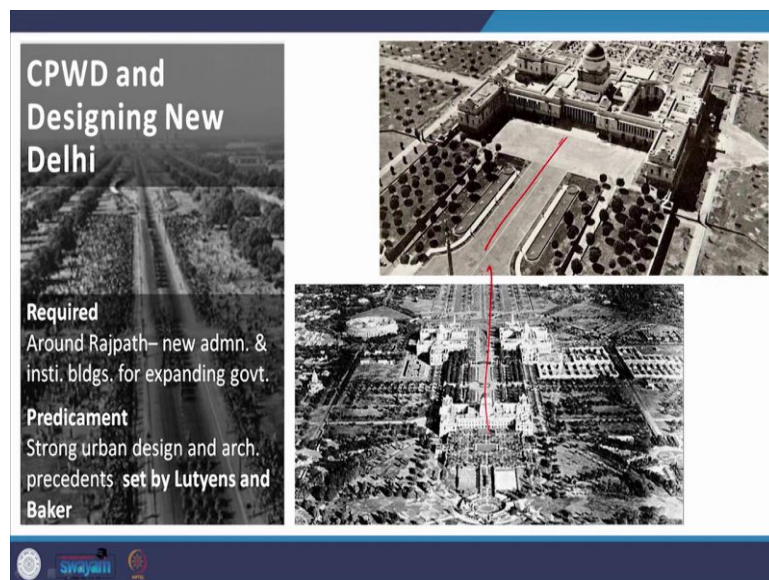
Now established private firms are also responsible for emerging professionally designed built environments, we saw one firm a couple of times last time was that of Ballardie, Thompson and Matthews and Lady Dufferin hospital and other buildings for example IIT Kharagpur the main building were designed by them as well as that of GBK, along with that the public works departments also played a major role in shaping the physical environment of early post independence India.

One of the people who really played a critical role in raising the level of design on in the CPWD was Habib Rahman who joined CPWD post independence having studied in the United States and he gave a totally new direction to the works of CPWD, CPWD was also responsible for the design of Bhubaneshwar that is designed by the Odissa PWD and Vidhan



Soudha in Bangalore, these are examples that are showing that show the various directions that were taken by the PWDs.


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Now if you look at CPWD and the designing for Delhi, New Delhi .The first Indian head of CPWD was G B Deolalikar and the second Indian head who was so to speak a graduate of GBK was S K Joglekar. Now it was required of them to build around Rajpath, the new administration in institutional buildings for an expanding Indian government so along this entire axis that you see here, this had to be populated with these buildings required for the Indian government.

Now the predicament was that the design set by Lutyens and Baker it was a very strong urban design and had very strong architectural precedence, it was completely overshadowing anything else that was going to, it would have overshadowed anything else that would have come up in this belt.

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**CPWD and Designing New Delhi**

**Modernist position - precedents largely irrelevant** – should not be heeded in city development

Eg. – Siting of Carpenter Center (Harvard, Corbusier, 1960)

**'Opposition' to existing order** regarded as prerequisite for creative design

The slide features two aerial photographs on the right side. The top photograph shows a dense urban area with various building styles and greenery. The bottom photograph shows a similar urban area with a red circle highlighting a specific building and its surrounding context, illustrating the concept of 'opposition to existing order'.

Now the modernist position was that precedence are largely irrelevant and should not be heeded in urban design and city development for example when Corbusier designed these Carpenter center in Harvard in 1960 he when he was placing the building he gave it so to speak an inclined axis on the site and thus not only that the form itself of the building had a curvilinear feature in it and it was the an opposition to the existing order which was regarded as a prerequisite for creative design in modernism.

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So we see that happening repeatedly in modernism and then onward in late modernism we see that in the way Seagram building was planned by Mies van der Rohe in New York by giving that vast open avenue plaza in front of the skyscraper which was a completely novel concept in New York, it was in the high-tech building the Centre Pompidou designed by Richard Rogers and Renzo Piano or the Lloyds of London by Richard Rogers later on in London.

And these buildings were showing opposition to an existing order, Seagram in opposition to the existing order of the Wedding Cake or the Setback skyscrapers in New York by setting the entire building back and raising it up as a single glass in steel block on a plaza very elegant solution that in fact brought in a change in the zoning resolutions of New York in 1961 because of this building and the one adjacent to it that is the Lever House Skidmore, Owings, Merrill.

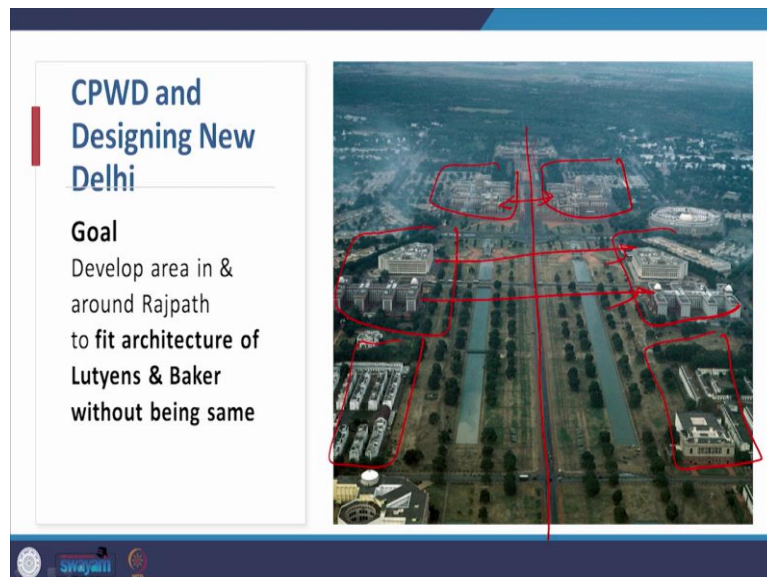
Now these two buildings : Centre Pompidou in Paris and Lloyds in London were in stark contrast to the architecture and urban design all around these buildings.

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But CPWD did not do that, they decided to build to the existing order and therefore the imperial style of Lutyens and Baker according to them was worth repeating they did not go ahead with this break of the pre, of the existing or rather in opposition to the existing order as seen in Carpenter center but they rather went in with the strong urban design vocabulary of Lutyens Delhi.

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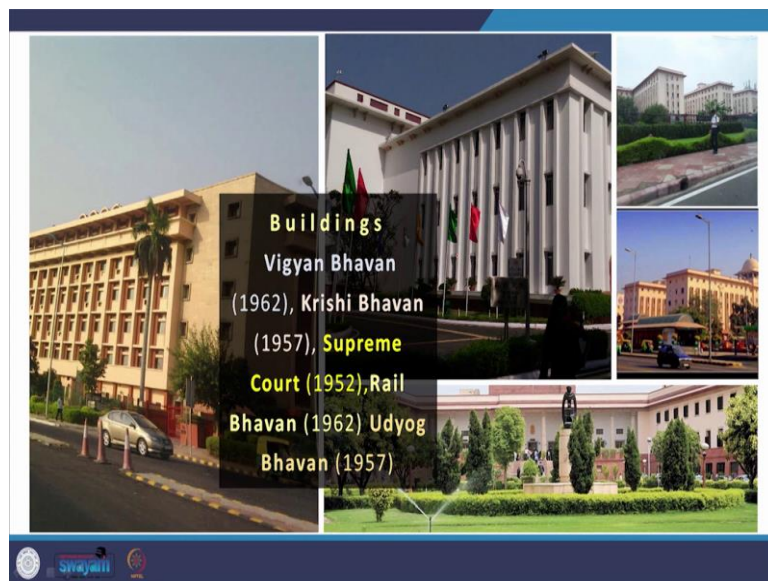


So this is what happened, the goal was to develop the area in and around Rajpath to fit the architecture of Lutyens and Baker without being same so we have these buildings coming up, this is the Rajpath the access down from Rashtrapati Bhavan, the two secretary buildings on

either side and this entire built form, very much in symmetric, very much in alignment to the axis in terms of urban design and the forms themselves being replicated into identical on either side.

So if the secretariat buildings on both sides were identical so are these two buildings and so are these two buildings, so not only is the identity in correlation with the overall urban design form but even in the way the buildings are organized they are splitting images of each other one against the other as it had happened in the secretariat buildings.

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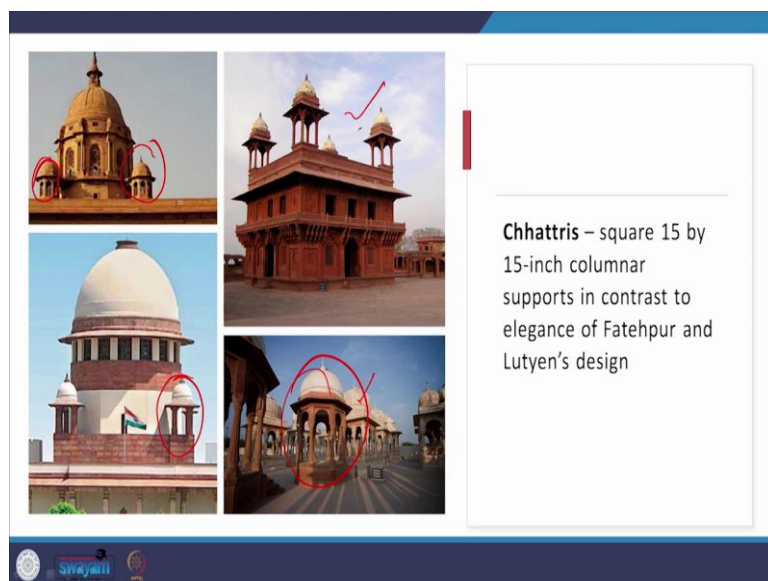


So the buildings that were designed by them in this belt, the Vigyan Bhavan in 62, Krishi bhavan in 57, Supreme court in 52, Rail bhavani in 62, Udyog bhavan 57, all of them

following the same architectural form that was evident in the Delhi designed by Lutyens and Baker.

They also use Chhajjas and chhatris and domes. We see that here, for example, in the dome of the Supreme court and the dome of this public building, we see that in the chhatris here and so we can recollect that in the secretariat building all over but it was still unsuccessful attempts or unskillful attempts. I am sorry, not unsuccessful but unskillful attempts to capture the ascents of Lutyen's work, why do we say that, they do exist.

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The reason why they did not come out as skilled as it had been done by Lutyens and Baker were CPWD skills and financial resources were considerably more limited than that of the

British architects and the brick and stucco finish or plaster finish could not produce the same quality as stone had provided for example if we compare the Rashtrapati bhavan with the Supreme court, the kind of elegance, let us take the example of the chhatris.

The chhatris that are used in the Supreme court are 15 by 15 inch columnar supports in contrast to those used in Lutyen's Delhi, these are traditional chhatris being taken from Fatehpur Sikri and incorporated in the central secretariat building of course it is also a mix, it is a mix of neoclassical planning with traditional Indian architectural features but it was fairly pure.

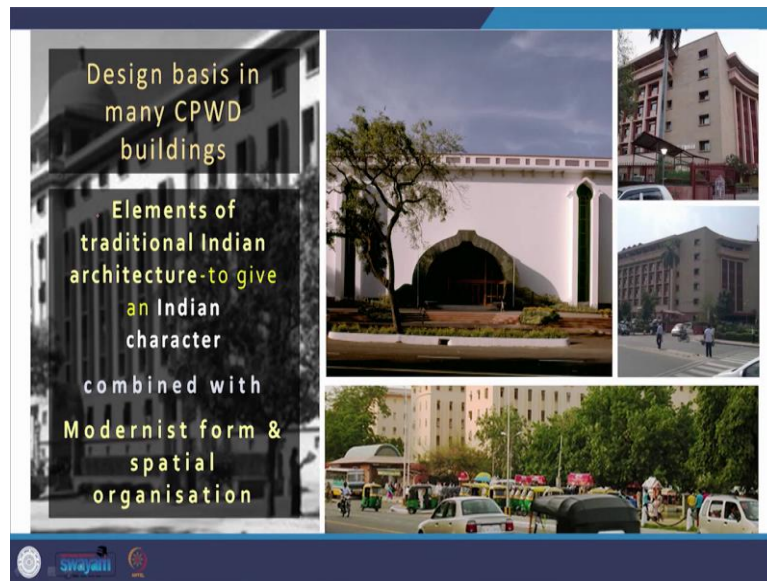
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So there is a greater elegance in form, if for example we take the dome of the sanchi stupa as I have already mentioned earlier and we saw its implementation in the dome of the Rashtrapati bhavan. If we have the chhatris here totally integrated with the dome, now the concept is same, you know if you look at this dome with the chatris on all four sides or the one in central secretariat to the one in the supreme court, the concept is the same but the way they have been brought out seems to be much more or rather more elegant in the buildings done earlier in Delhi.

Whereas here, the same elegance does not come out, of course we are moving away from neoclassicism, we were moving away from totally traditional Indian elements, we were adapting them to a modern time so there was still a gap left in the way the building came out in front of us.

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So the design basis in many of the CPWD buildings was elements of traditional Indian architecture to give it an Indian character combined with modernist form and spatial organization, now this is very parallel to what the British had done in their colonial buildings, they had taken elements of Indian architecture to give the buildings an Indian character we see that in the buildings of New Delhi and the overall layout was a western layout or a western spatial organization. So it is evident in all these buildings of CPWD.

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So in the end if we were to draw a comparison between three that we have seen till now Indo-Saracenic is an amalgamation or fusion of neoclassical or neo-gothic with traditional Indian



architecture, architectural elements but the fusion is such that it becomes a totally new entity but there is modern space planning.

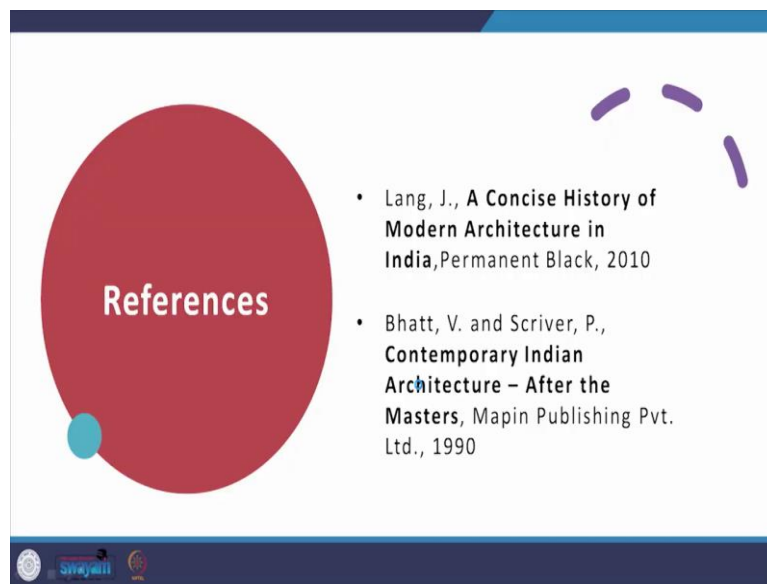
Colonial is neo classical with traditional Indian architecture elements but its not a fusion, the elements can be identified separately you can see very clearly the overall building form. Layout is western, the building predominantly is neoclassical but it has certain traditional elements in it whereas in CPWD the neoclassical part has been replaced with modernism so it is modernism merged with or added to it is traditional Indian architectural elements and the spatial planning is modernist.

So in all three the spatial organization is the space planning is modern or modernist space planning but its amalgamation Indo-Saracenic, it is colonial, its neoclassical with elements and its modernist with traditional elements in case of CPWD, so these three pictures emerge in front of us but one question continues to bother us and that is is it basically all about window dressing, that the buildings at their heart are pretty much the same but the way the building appears on the outside is based on the kind of aesthetic the building has been given.

When I began this series I began by telling you that we would like to see a good building or rather a good building is a combination of three things form, structure and function, function is pretty much very very similar only the form on the outside is changing so is it all there is to architecture its only the window dressing that is what how we would define modern Indian architecture or modern architecture anywhere in the world or architecture at any time or is it much deeper than that function and structure play a very critical role and that is it is very very true.

The way the form comes out in front of us in modern architecture is a direct derivation of the function and the structure and we will expand on this idea in the days to come, we do right now we are still focusing on the form of the building but as we move forward into modern Indian architecture we will see that other things other elements of structure and function will start playing a critical role in the way the building comes out in front of us.

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The slide features a large red circle on the left containing the word "References" in white. To the right of the circle is a bulleted list of two references. The slide has a dark blue header and footer. The footer contains the Swajee logo and a small circular icon.

- Lang, J., **A Concise History of Modern Architecture in India**, Permanent Black, 2010
- Bhatt, V. and Scriver, P., **Contemporary Indian Architecture – After the Masters**, Mapin Publishing Pvt. Ltd., 1990

I will stop here for today, thank you so much for joining, these are a couple of references that you can look up. Thank you.