

**Modern India Architecture**  
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**Lecture 11**  
**The First Generation (1945-70) – Part 4**

Hello students, we once again start and we will continue with The First Generation, from 1945 to 1970. We are looking at part 4 today. And if we just recapitulate what we did last time, we were looking at the contribution of CPWD. At the turn of at the time of independence, the massive role they had to play in housing and the two roles that they played with regard to public buildings and how it was a combination of a modernist architecture with traditional Indian elements and in housing.

It was a pure, modernist approach, referring back to the industrial city of Tony Garnier, something that even Gropius and Corbusier, etc, tried out particularly we talked about the vision of Siedlung project. And we had done a drawn comparison where vision of Siedlung was more of an architectural statement. Whereas what the CPWD was doing was what was the daily needs of the people in India.

And we also looked at how the different approaches were there that Indian architects of the first generation were those who were in that studied in the West, and they are now coming back to India. They were bringing the ideas of modernist architecture that they had learned in the western classrooms. And they were incorporating that into Indian architecture and does the Indian architectural movement with Indian architects began.

We also saw that what the CPWD was doing what was not an isolated experience with regard to public buildings, even private Architects like EB Doctor etc were also attempting to do that, like it was done in the Ashok hotel. We had also seen the contribution of firms like architects united in Pune, they were other architects who were catering to the upper middle classes and the educated classes of India, but not designing iconic buildings, which were making conceptual architectural statements.

They were those buildings that were to be made for everybody who needed an architect to design their houses or their buildings. And so issues like freestanding bungalows, and cooperative housing, all came up, but not designed by architects who had either trained in the west or they had worked along with the master architects, but architects who had studied for example, in sir J.J., and they had they were Indian, homegrown architects, they had gained

their education in India and started practicing in India as independent architects and they also produced some really interesting work.

And they in a sense, showed the way for architecture to percolate down to the mass audience in India. So, there is a kind of division made in that iconic architecture versus the day-to-day buildings required by the general public in India. So, that is where modernism really took off, in the sense that it seemed to deeper into the society.

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**Gandhi Smaraks**  
Comparative Study

1. Gandhi Ghat Memorial, Barrackpur, Habib Rahman, 1948
2. Gandhi Smarak, Rajghat, Delhi, Vanu Bhuta, 1956
3. Gandhi Smarak Sangrahalaya, Ahmedabad, Charles Correa, 1958-63

All three reflect minimalism - frugality of Gandhi's life

Also show originality and variety of Indian interpretations of Modernism

Now, moving forward from there, once again looking at the contribution of the first generation, shall we turn to a very interesting example a comparative study of three important Gandhi Smarak that came up in the 1940s and 50s. All of them connected with this one person who was focal in India's independence Mahatma Gandhi.

And so that was the Gandhi Ghat memorial in Barrackpur, designed by Habib Rahman who was heading the CPWD. He designed that in 1948. Then it was the Gandhi Smarak in Rajghat and by design by Vanu Bhuta in 1956. And the most famous of the three Gandhi Smarak Sangrahalaya by Charles Correa 1958 to 63.

All three of them were those who had studied in the West, if you can refer back to the list that I had given you, probably a lecture back when I had shown you these people who are in different colleges abroad and come back to India, and they all these three of them, they design these Smaraks.

And the commonality between these three versus all reflect minimalism or the frugality of Gandhi's life, but along with that, they also show an originality and variety in India's

interpretation of modernism. So, India's interpretation of modernism is not just confined to adding elements to be able to reflect a climatic response, it was more than that it was also to reflect the socio-cultural identity of India.

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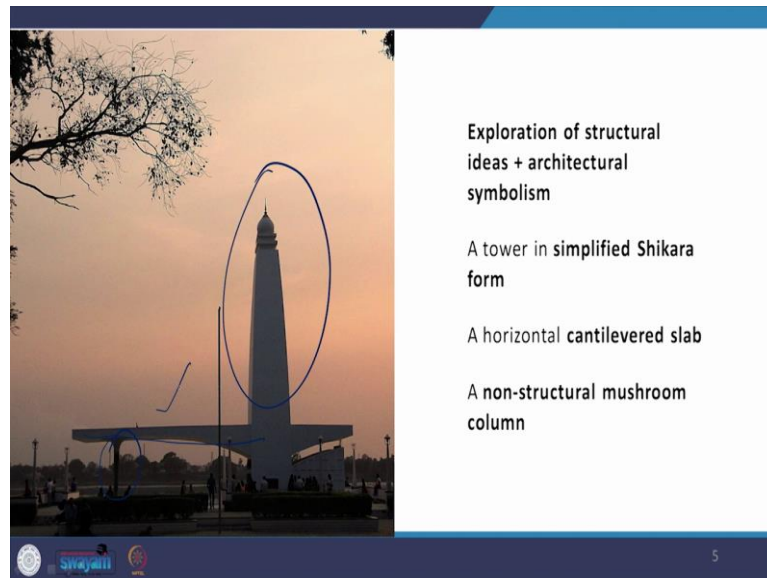
For example, in the Gandhi Smarak that was in Barrackpur like, but in a general sense, there was originality, there was link between modernism and Gandhian philosophy, along with that the Indian interpretation was that traditional concepts like the Indian temple form and the village was also incorporated.

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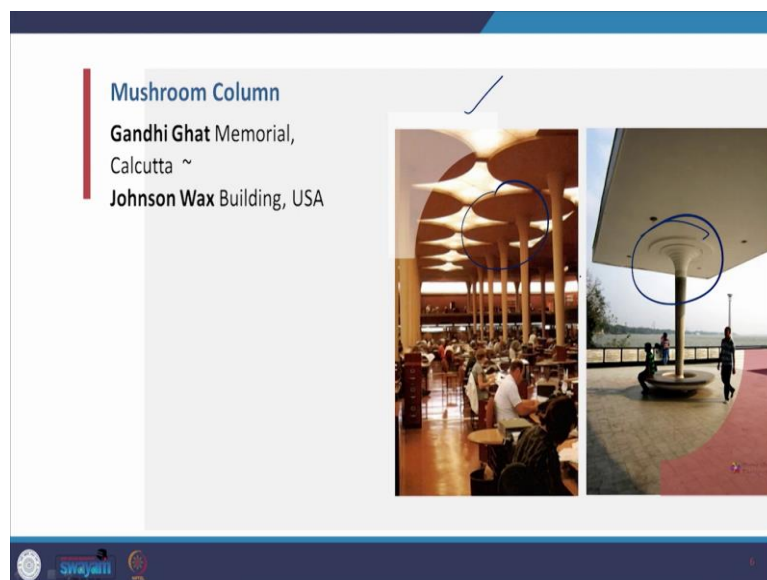
So, here in Rahman's work in Gandhi Ghat Memorial in Barrackpur 1948 it was the first completed work of Rahman.

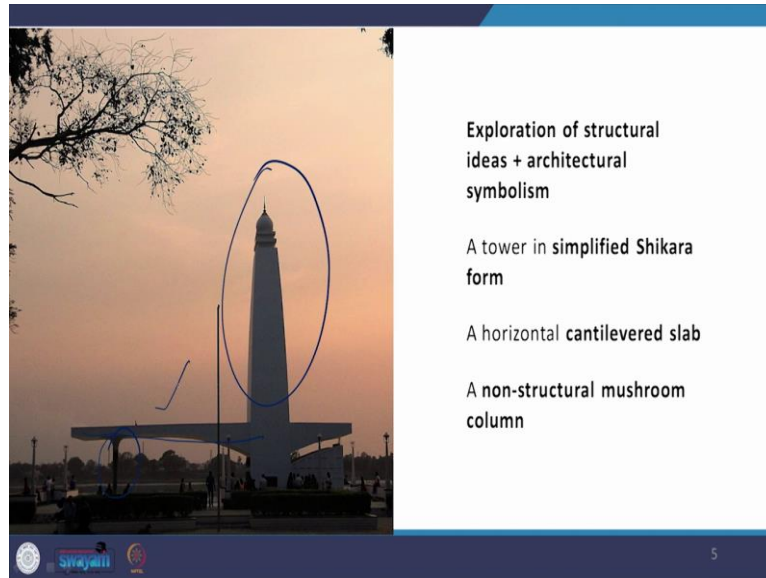
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And it was an exploration of the structural ideas that he incorporated here along with architectural symbolism. So, what it has is, it is got this tower like Shikara form of the temple, it has got a horizontal cantilevered slab, please do not be, you know, do not be deceived by this mushroom column, because it is a non-structural mushroom column. So, this essentially is a very long cantilever to this memorial.

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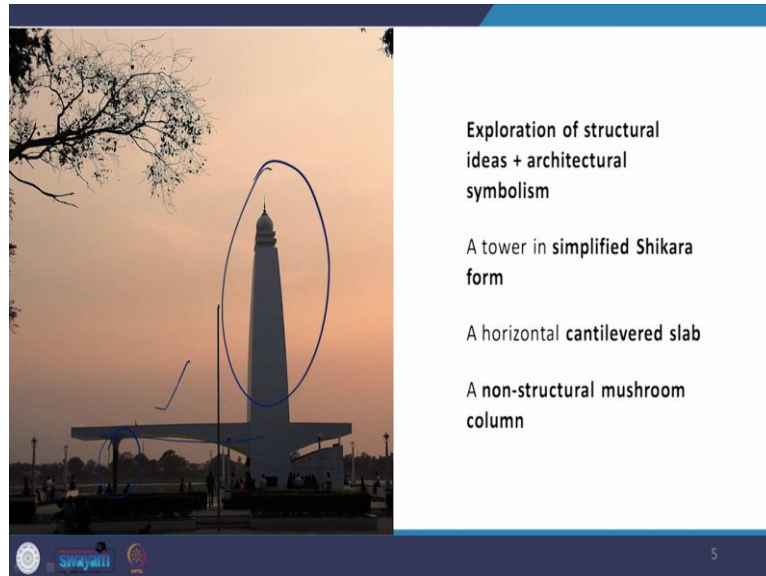




So, it in a sense, if you look at it, the form is very much in relation to the Indian temple form, and the mushroom column, if we try to connect it. Then we see the mushroom column had appeared in the Johnson Wax building by Frank Lloyd Wright, in United States in the 1940s, I believe 1948. And we see the same mushroom column appearing in the Gandhi this Smarak building by Habib Rahman.

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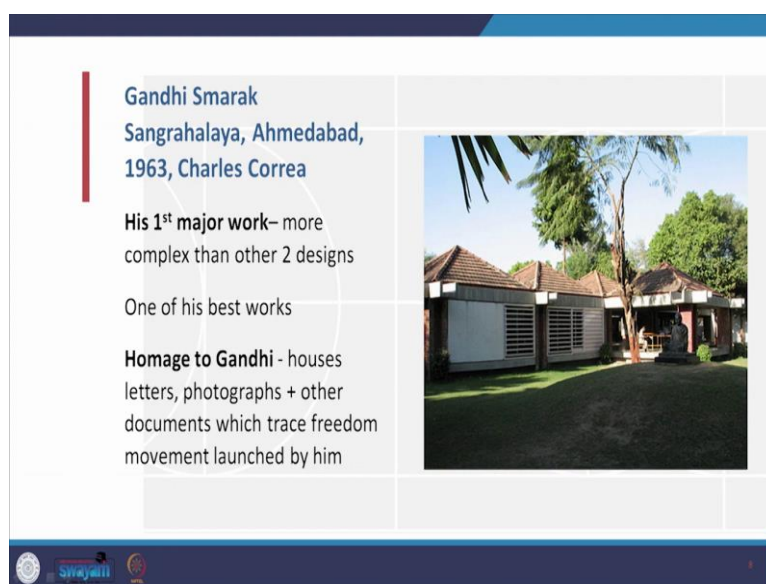




The other one was the Gandhi Smarak in Rajghat in 1956 by Vanu Bhuta, which, of course, is the most internationally visited of the three Gandhi memorials, because being situated in Delhi, most of the dignitaries, the government dignitaries, they come to this memorial to pay homage to Gandhi. It is a very simple design. In fact, I believe, it is the simplest of all three of them, and it is the most minimal of all three of them, all three are minimal.

If you again reflect back on this memorial, you can see that this is very minimalist bare bones, reflection or idea of a temple form. And so also here, this is not even a reflection of any Indian form. It is a simple cuboidal form, very, very straightforward. And less is more the dictum of minimalism or less says more.

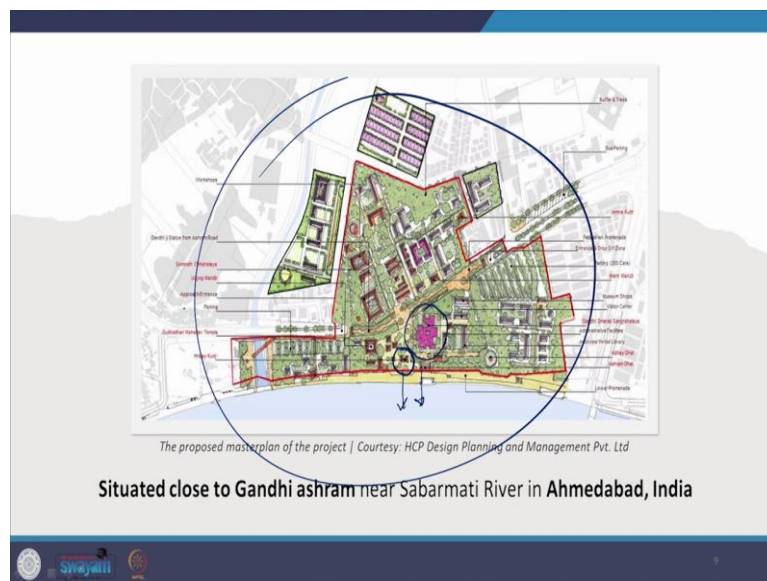
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Now, coming to the Sangrahalaya, Ahmedabad, the first major project of Charles Correa, just as the Gandhi Memorial by Habib Rahman, was his first major work in India. And this design was more complex than the other two designs simply because it was not just going to be a memorial. It was a Sangrahalaya it was a museum that it was.

So, it is a memorial along with the museum, and one of his best works even till today. And it is a homage to Gandhi, it houses the letters, the photographs, and other documents which trace the independence movement at this launched by him or he became the pivotal figure in that movement.

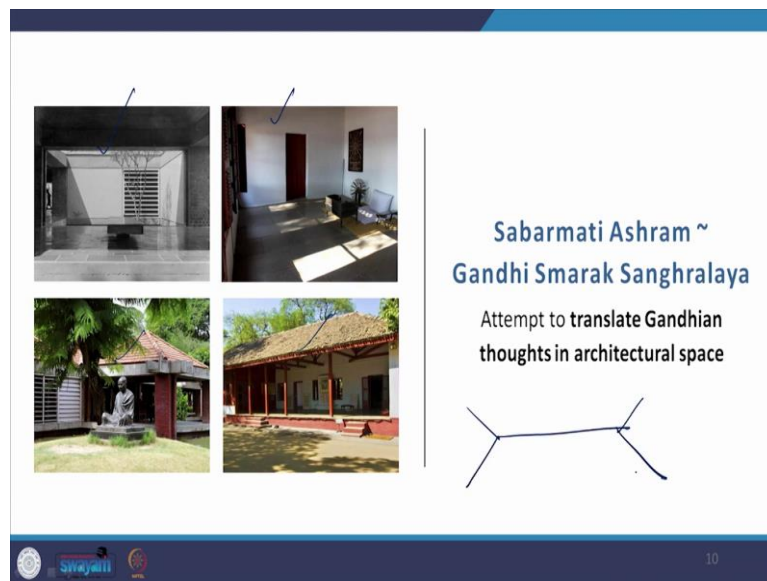
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So, if we look at this site plan, this is actually an evolved site plan. This is a proposed master plan of the Sabarmati Ashram project, which is going to be executed by Hasmukh C Patel design planning and management Private Limited that is Bimal Patel's form.

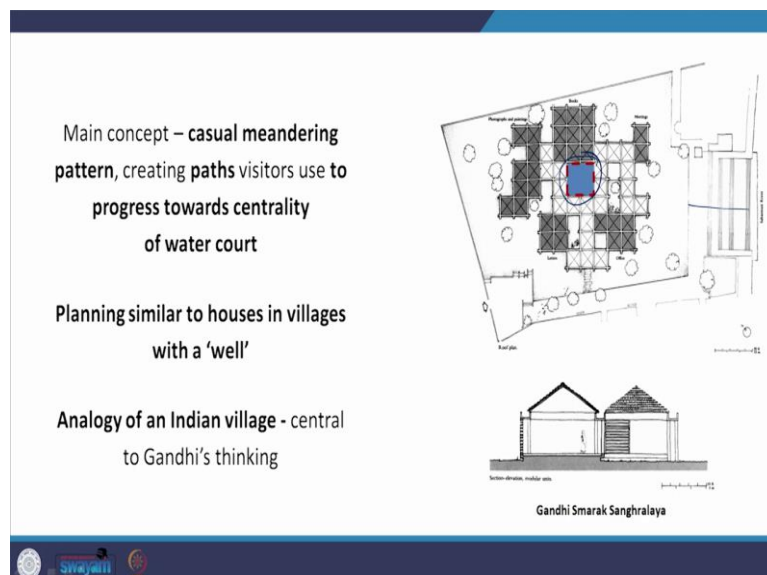
And here what we have is that this is where the Smarak Sangrahalaya is situated. In the overall scheme of things, this is a vastly more organized, elaborate plan. And this is where the Hriday Kunj is here. This is the original Sabarmati Ashram of Gandhiji. So, here you can see they are both of them facing towards the Sabarmati river. And this is how they are situated, but the compound itself is going to be a very massive set of buildings.

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So, this is an attempt to translate Gandhian thought into architectural space. So, if you look at for example, Gandhiji's room in the Sabarmati Ashram and compare it with the spaces within the Sangrahalaya they are as minimal and frugal as his own personal space was and the way the form has evolved is also drawing on the pyramidal roof form of the Gandhi the Sabarmati Ashram. As you can see, this is a pyramidal roof form. And the Smarak Sangrahalaya also draws from a similar roof form.

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So, the main concept is the village concept, which is something very close to Gandhi's thinking. He said that India lives in its villages. So, it is a casual meandering pattern as you climb these steps, this is towards the Sabarmati River. And you have like a set series a cluster



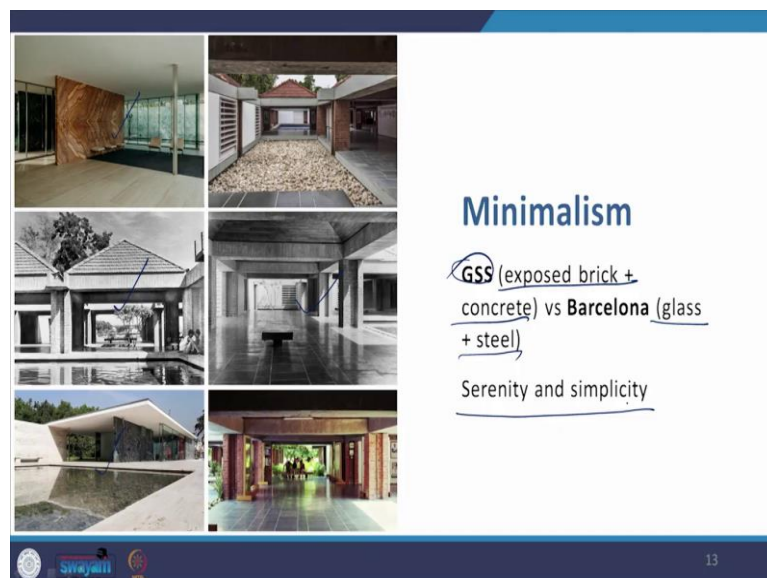
of built forms and creating paths through which visitors progress towards the central area where there is a water court. So, this is very similar to a village where the well is housed, there is a focal point is the well of the village. So, the analogy is that of an Indian village.

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And the design shows the link between the modernist concepts and Gandhian philosophy, especially minimalism to achieve the architectural ends.

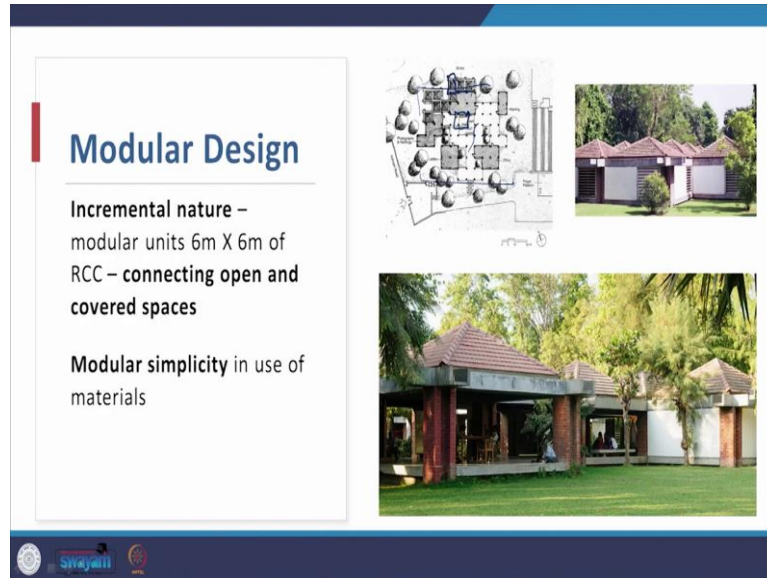
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So here it is, if I were to take the first major example of minimalism by Mies van der rohe and that is the Barcelona pavilion 1929. As you can see this indoor interior of the Barcelona pavilion and compare it with that of the Sangrahalaya so same minimalist approach, the overall form is very, very simple and very simply organized. So, the Sangrahalaya itself is

actually exposed brick and concrete, whereas Barcelona pavilion is exposed glass and steel but in both there is this serenity there is a simplicity about the overall build form.

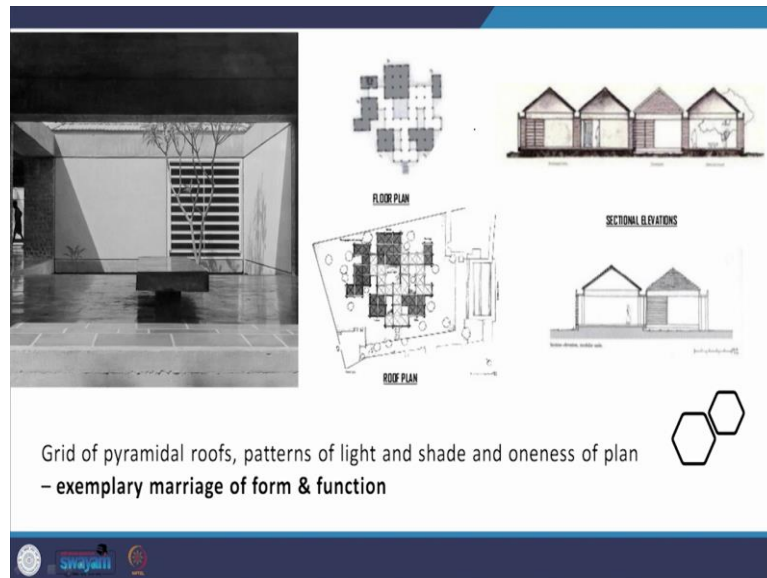
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Now, there is the other important concept of incremental growth. Now, this is the first project where we see incrementality in the works of Charles Correa, but the same idea would keep on reappearing in his projects. For example, if we have an opportunity, we look at Belapur housing, where again the same idea of incrementality has been looked upon.

And so here we have modular units that are 6 cross 6 meter with an RCC off RCC connecting both open and covered pavilion. So, this is a covered pavilion for example. This is a covered pavilion, and then a similar module of 6 cross 6 meter, which is an open pavilion. So, there is this modular simplicity about the entire design. The entire grid has been laid out of 6 cross 6. And then the pavilions are thus organized, the combination of open to sky pavilions, then there is the covered pavilions. And then there are the intermediary, meandering spaces in between.

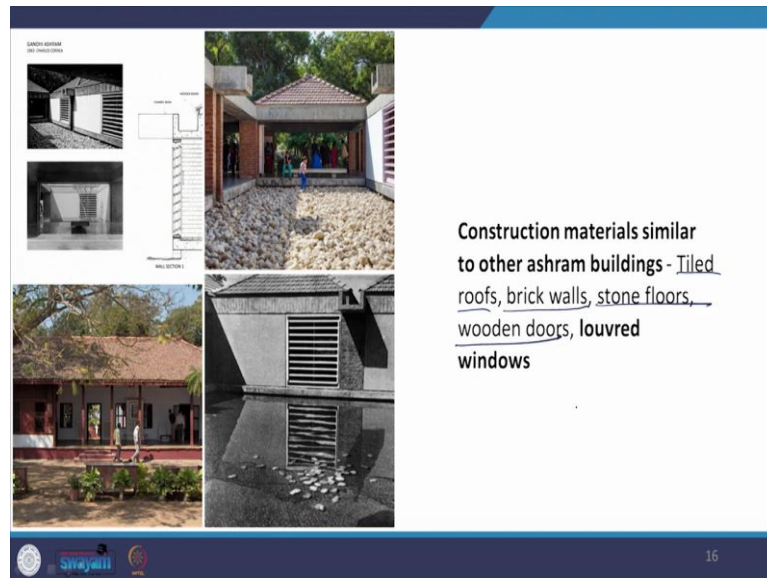
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So, it is a grid of pyramidal roofs with patterns of light and shade, and there is a oneness of plan. So, it is a very interesting manage of form and function. And the overall arrangement all speaks of tremendous simplicity. But when you look at the way the buildings have been organized, it is very clear that this simplicity has been achieved with a lot of effort and care.

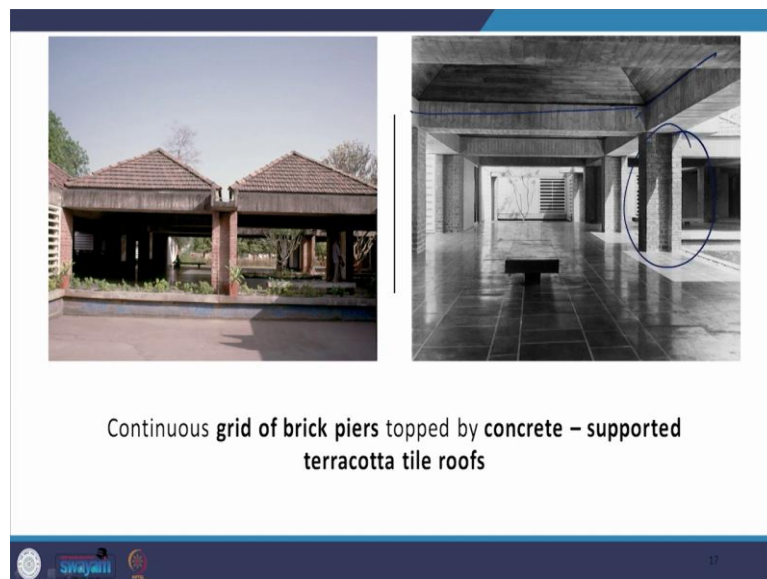
That is why it still continues to be probably one of the best works of Charles Correa, I would just mention it here, I have always believed that the simpler your design is in terms of its plan organization, when you come down to bare bones of your design, and there is nothing more that can be added or subtracted from the design or that plan, then you have probably reached the best that you can do in that particular plan. If you keep on working on your design, till you reach a point where there is no superfluous element that remains in it, or nothing extra needs to be added to it. I believe that you have reached a very healthy design stage.

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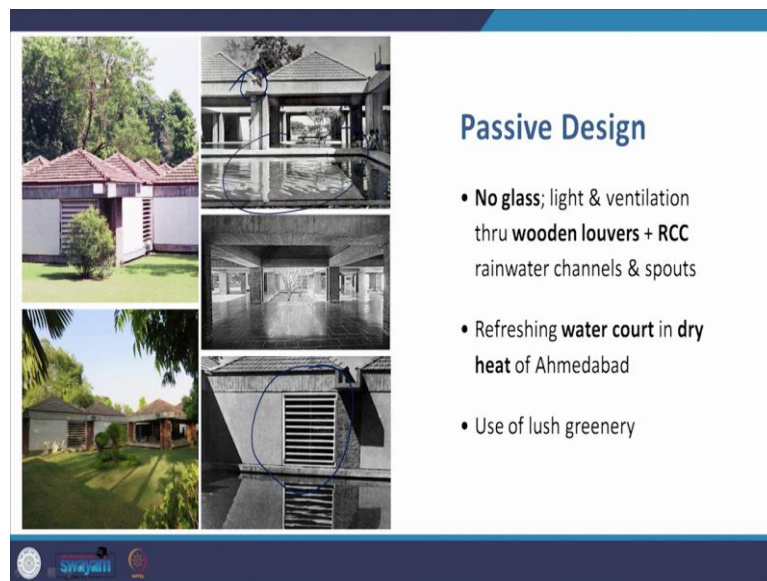
So, here also this with regard to the construction materials. It is very similar to what was used in the other ashram buildings. There is tiled roofs, there are brick walls, there are stone floors that are wooden doors. And in addition to that there are these louvered windows.

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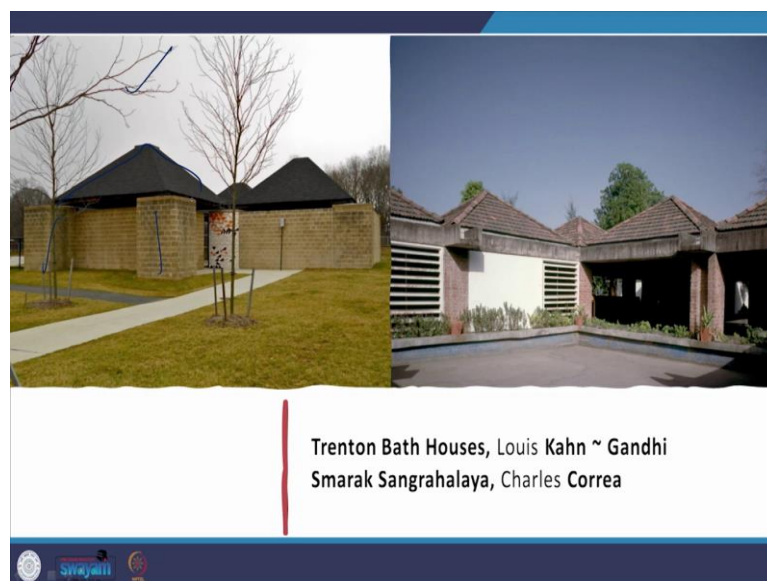
We will come to that as a climatic response. There is a continuous grid of these brick piers over which this beam of RCC is placed. And on top of that there is this pyramidal roof in terracotta tiles.

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So, the passive design that has been applied here is there is no glass that has been used here. The light and ventilation is where these louvers come into play. These louvers play the role of pulling in natural light of course, natural light is seeping through the building from under the pyramidal roof and the overall light within the building is so gentle and it is not at all there is no glare at all anywhere the RCC rainwater channel. And so, these spouts are there. And this is refreshing court for the dry heat of Ahmedabad, and there is use of lush greenery throughout the complex.

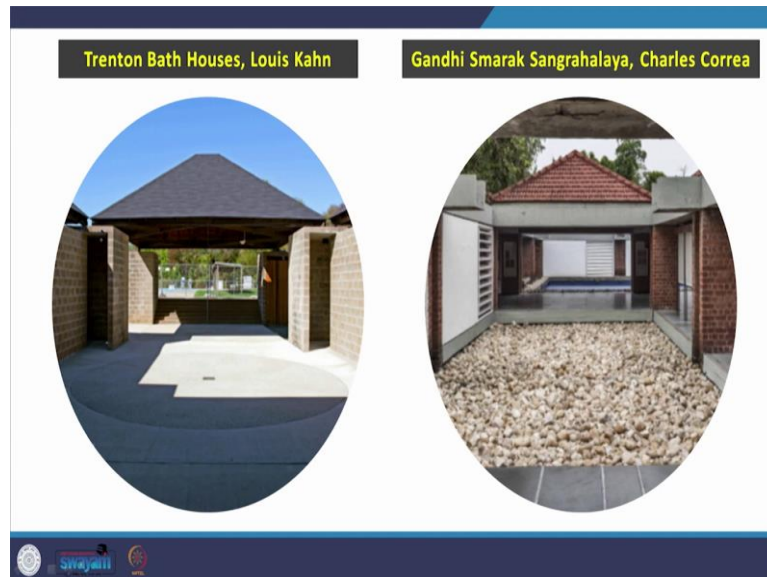
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Now, there is a comparison that has been drawn between Trenton Bath Houses designed by Louis Kahn and Gandhi Smarak Sangrahalaya and it is visually clear to us that there is a very

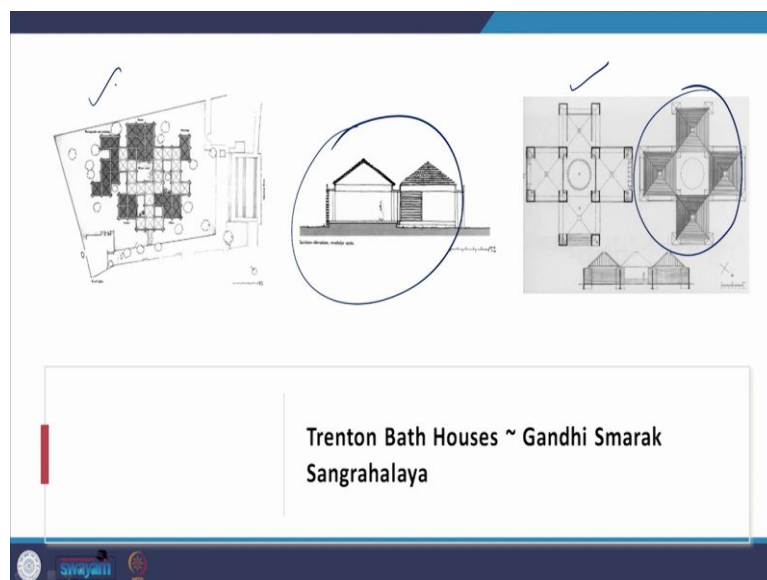
strong similarity. If you look at the Trenton Bath by Louie Kahn, which was done before the Smarak Sangrahalaya. The module itself is these brick piers which are mounted by this pyramidal roof form. And so, it is true for GSS Gandhi Smarak Sangrahalaya.

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Now, in Trenton Bath, this is a very, this is a picture that clarifies it even further, you can look at these brick piers mounted by this pyramidal roof and so also you find in the Gandhi Smarak Sangrahalaya.

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Then again, if you look at the modular plan organization, this is the module the way the modules have been organized. So, the Trenton Bath Houses are also a series of modules that are used in multiples and so also here in the Smarak Sangrahalaya, the difference only being

that this is a more rigid organization, whereas this is more like an organic Indian village organization.

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**Hasmukh Patel**  
(~ HCP-Bimal Patel)

- Belongs to 1<sup>st</sup> generation - but younger & his works came later
- Studied at Cornell – less influence of Gropius

The slide features a portrait of Hasmukh Patel on the left and three architectural photographs on the right. The first photo shows a modern building with a prominent staircase. The second photo shows a tall, cylindrical tower with a circular observation deck. The third photo shows a multi-story building with a grid-like facade. The slide includes logos for Swajathi and a page number '22' at the bottom.

The other architect who played a very important role in those early years was Hasmukh Patel of Hasmukh C. Patel the firm that we talked about. Architect Bimal Patel is now looking after this firm and his father Hasmukh Patel, he belonged to the first generation, but he was younger. So, his works come a little bit later. And he studied in Cornell. And so, there was less influence of Walter Gropius on him. But his works are very typically modernist. If you look at all three projects, they are very typically modernist, that are depicted here.

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**Newman Hall,  
Ahmedabad,  
Hasmukh Patel, 1965**

**Design:**  
Clear order with simple bldg. techniques

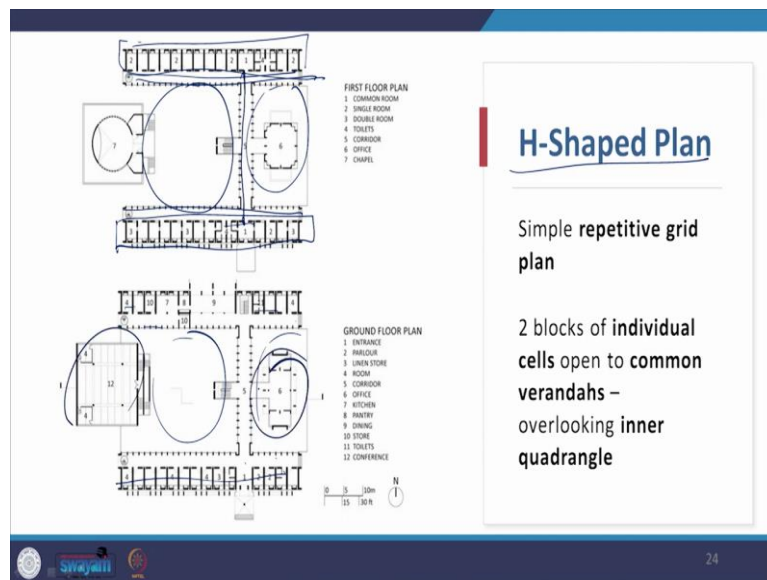
Clear proportion, spare & clear in detail

The slide features three photographs of Newman Hall. The first photo shows the exterior brick facade with vertical elements. The second photo shows a modern glass and metal entrance structure. The third photo shows an interior view of a long, covered walkway with a brick wall and a series of steps. The slide includes logos for Swajathi and a page number '23' at the bottom.

And let us just talk about one the Newman Hall one of his most famous projects of his early years, done in Ahmedabad in 1965. As you can see, this is a, we are moving forward by around 10 years to come to this work. Whereas, when we are talking of Charles Correa, we were talking about 1958, 1955 58. So, here we have a very clear order, with very simple building technique. And this is called a very clear proportion. It is very spare, very frugal and clear in detail.

That is, of course true, because this was to be for a very conservative society of that this building represented. So, the entire building had to have that very frugal, and spare or sparse appearance. And this building is typically modernist in the way it has been put together. But as you can see, the entire building has been it done in a manner that it responds to the hot climate of Ahmedabad.

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So, when we come to the building, it is an H shaped plan. It has got these two wings on either side. And it is a simple repetitive grid plan with the two blocks of individual cells for the occupants on both sides. If you look at the first floor here and this is having these open corridors or veranda us here in front, and this is overlooking and in an indoor or an inner quadrangle on both sides of a connecting corridor.

So if you look at the ground floor plan, you have the same two wings on either side, you have the verandas, and you have this connecting corridor and the quadrangle, you have an auditorium on one side you have a common room on the other and at the ground level you have the grid is so simple that it can easily be turned into a larger unit.

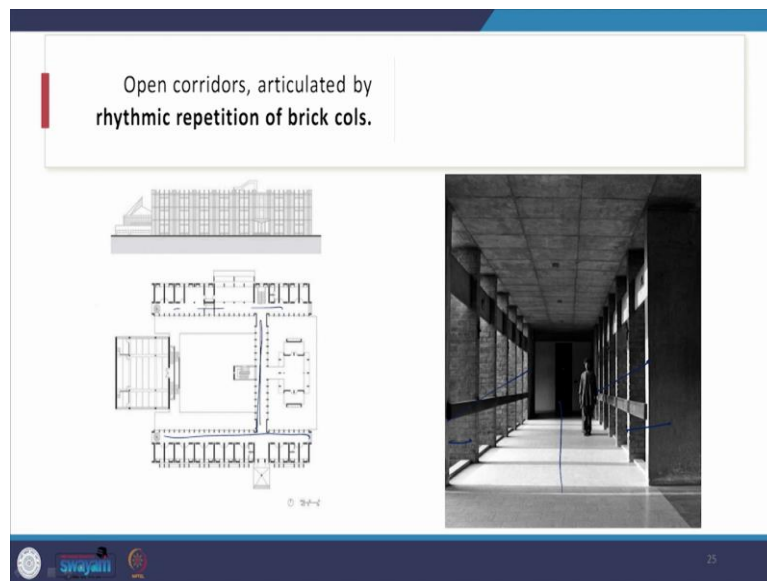


So, what they have done here is at the ground level, they have converted this into a larger dining facility without making any modifications in the Cartesian in the overall grid layout. And this they have modified into a pantry here and a kitchen here. So right on top, the rooms continue in the same fashion as in the overall grid.

So, it is such a simple and neat organization of spaces. And please remember that you might have seen a whole lot of buildings that are following a similar format, maybe the college that you are in or the buildings that you have seen or the hostel that you have, maybe this is a kind of a repetitive grid that you have seen.

But remember that this was one of the earliest attempts in India to do that, what we see today is after a whole range of works that have been done using this kind of grid organization, whereas, what architect Hasmukh Patel was doing at the time was very new to India and this approach he was bringing in, and then he was making it respond to Indian climatic conditions.

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So, this has got a deep piers on either side. So, when you run through the connecting corridor here, it is cut off from direct glare of the sun. And the open corridors are articulated by this rhythmic repetition of brick columns, in the corridors or verandas here, and the connecting corridor.

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**Inspirations** Medieval cloisters (enclosures) + monastic austerity of Louis Kahn, A'bad



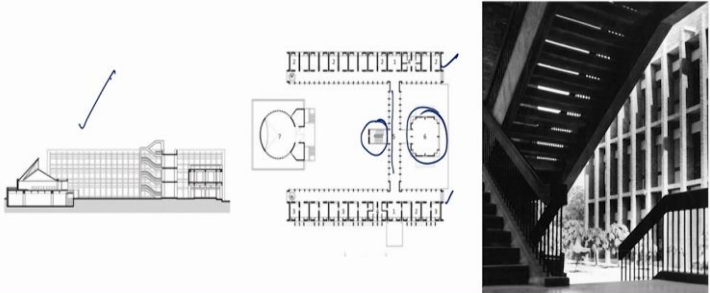
The slide features three photographs. The first is a long, narrow brick corridor with a high ceiling and a central light fixture. The second is a stone cloister with a series of pointed arches and a central aisle. The third is a brick archway leading to another archway. Blue checkmarks are placed above the second and third images.

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Now, the inspirations for such an idea, not only comes from the medieval cloisters or enclosures, also from the austerity in the work of Louis Kahn, where you find this kind of corridor at the ground level of IIM, Ahmedabad in brick work and these are brick arches. And here you have it in brick in RCC in the medieval cloisters, this was in stone.

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**3-tiered bridge links 2 blocks to vertical circulation and a separate common room**



The slide contains three architectural diagrams and a photograph. On the left is a perspective elevation of a building with a bridge. In the center is a floor plan showing a bridge connecting two blocks and a common room. On the right is a photograph of a 3-tiered bridge with a dark, slatted roof and a white railing.

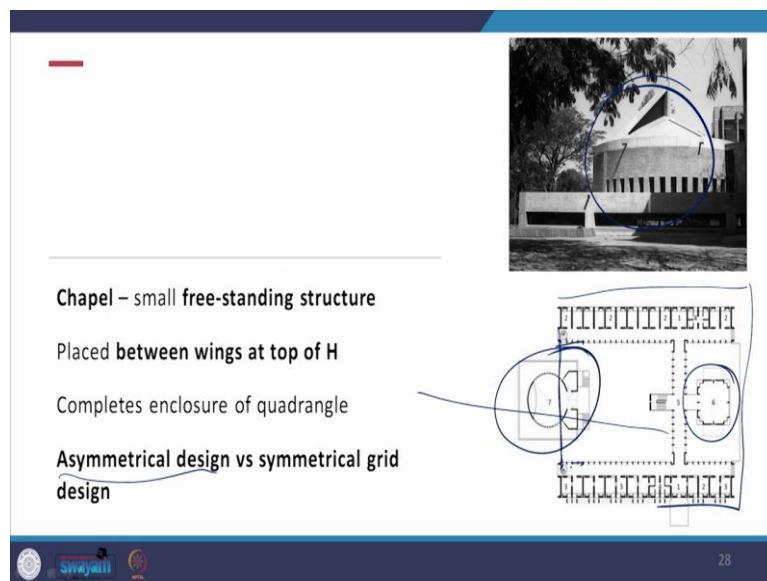
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Then there is the 3-tiered bridge, this one, which links these two blocks, and then connect it also to vertical circulation on this side and a common room to the other side, the entire organization is so neatly done, when you look at the overall elevation also, it is a series of very clear even here, the overall building is so well articulated. The word articulation means

that each articulation in language basically means when I speak each word, word distinctly and clearly.

So, articulation in architecture is when each element of the building is very distinct and clear to us. If you look at the elevation, if you look at the plan, the structural members, the structural elements the everything is very clearly laid out, it is well articulated. So, that is how we use the word articulation in architecture.

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Now, the Chapel on the other hand, on one hand, the entire grid is very, very symmetrical and very rigid. On the other hand, the chapel itself breaks that grid completely, and it becomes an asymmetrical design on one end of the quadrangle, by being here it does another simple thing is that it closes the quadrangle. It does not let the eye waver off into some in finite distance, but it gives a clear cut closure to the quadrangle here.

And this chapel is a freestanding structure, it is not connected to the remaining grid, like the common room for example, is but it is placed between the two wings of the edge and completes enclosure, asymmetrical design versus a symmetrical grid design of the building.

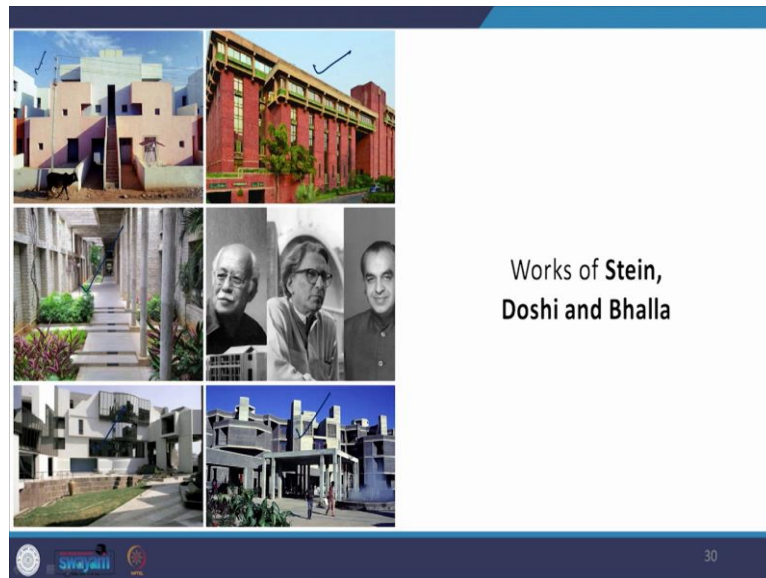
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Now HCP are design consultants have moved much ahead of that time, if these were the original works of Hasmukh Patel, all of them reflecting modernism, this and this, then they have gone on to make buildings where there is a touch of post modernism also, or rather, I would not use the word post modernism, I would rather use the word regional modernism or critical regionalism, there is this totally new look at the extension of the IIM Ahmedabad campus, which has a very clear relationship to the work of Louis Kahn in the main campus, but here it is exposed concrete rather than exposed brick.

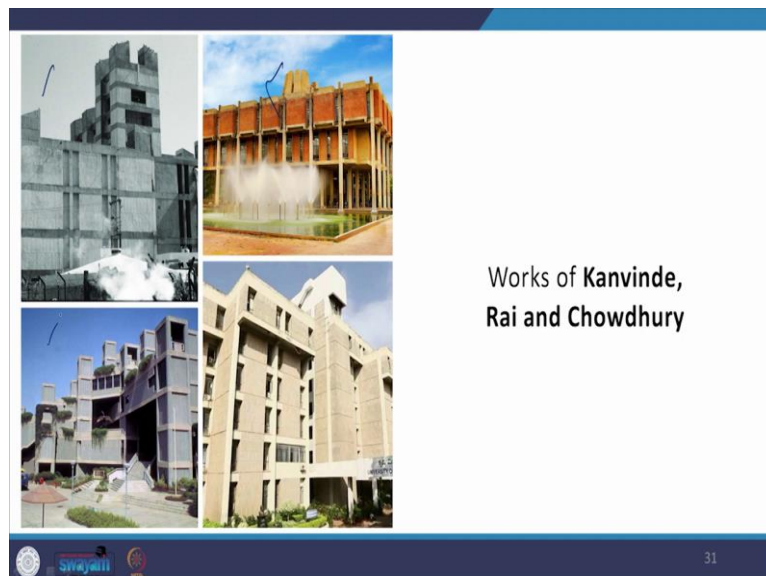
And of course, the most prestigious project the firm is handling today, and that is the upcoming new parliament building and the work that they are doing along the Rajghat. It is a completely new project that is coming up the entire innovation.

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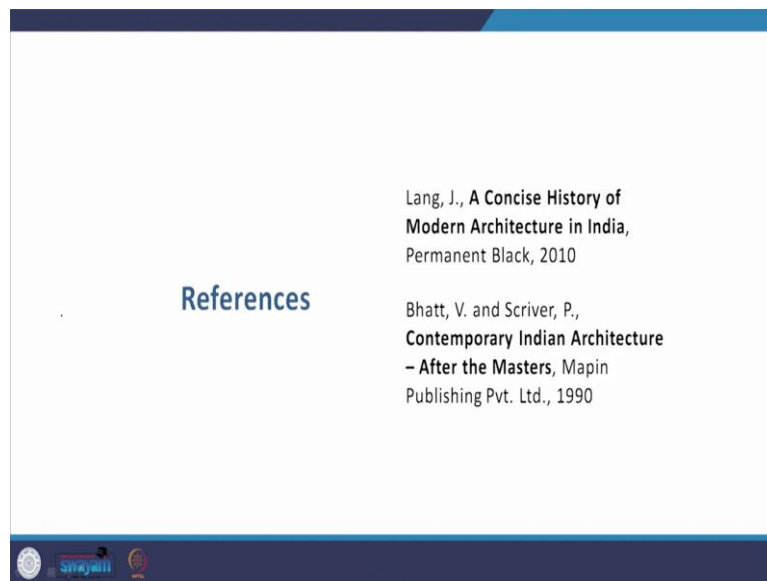
Now, some other firms that have played a critical role in the development of Indian architecture, from the 1960s and 70s, all the way into the 21st century with the firm of Stein, Doshi and Bhalla. This is Stein's work and BV Doshi's work the India habitat centre by Stein or the IIM Bangalore by BV Doshi, the Jabalpur state electricity board building by BV Doshi and the NIFT in Delhi by BV Doshi, and this project has also been done by Doshi. But there are other projects that we were looking at by Mr. Stein.

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Then we come to the works of Kanvinde Rai and Chowdhury, Mr. AP Kanvinde has an IIT Kanpur and this building of the Dudh Sagar Yojana, The Nehru Science Centre etc, all done by him.

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So, we will stop here for today that we have looked at the first generation of architects and how they began making a significant contribution to establishing an Indian identity to architecture.

Now, though, critical regionalism will come, and we will talk about it in a lot more detail. But the aspects are already apparent to us. That it is not just a climatic response. It is also a regional response, like the temple form in the Gandhi Memorial by Habib Rahman, or the village format in the Gandhi Smarak Sangrahalaya, it is happening. We do not see that, for example, in Newman Hall also there are two parallel approaches that were running about the same time.

One was a purely modernist approach that had been taken by Habib Rahman and AP Kanvinde, and we will be looking at their works in the first generation. And then there was an offshoot where we see architects who were bringing in more Indian-ness into their work before it became a very strong movement. And what then Jones Lang Lasalle calls as, surely modern Indian architecture, an Indian building, but a modern building, and we will come to that in the later lectures. Thank you so much.