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Critical Regionalism in Indian Architecture - Part 4

Hello students, we are continuing with our study of Critical Regionalism in Indian Architecture. As you know that we have introduced it to you as a very important segment in the development of modern Indian architecture. I will go as so far as to say, as John Lang himself has said, this is truly modern Indian architecture. That means, modern architecture in India, having both the section of modernism along with that of vernacular or traditional Indian architecture, merged or fused together in a modern building.

So, these buildings are modern, like any other modern building in the world, but we know they are distinctly Indian modern buildings because they have that Indian identity in them. I discussed earlier also that because of the facelessness and ruthlessness of modern or modernism internationally, many architects all over the world, tried to bring in these regional identities into modernism by people like Alvar Aalto, Tadao Ando, Luis Barragan and many others, and that gave rise to some very interesting architecture that was modern, but it was specific to a region and was meant to be in sync with the climate, the topography, the materials etcetera, of that particular region.

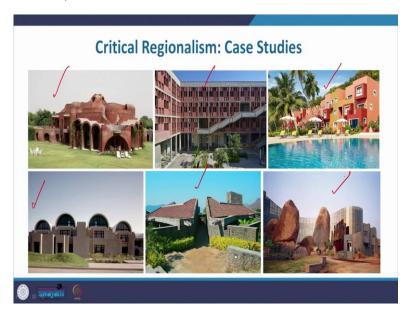
Similarly, critical regionalism in India has also played that role and like I said, the word modern Indian architecture fits it so well. These are iconic buildings, which are built based on our typical regional conditions. And you know that these conditions vary in India from one part of the nation to another. After this, when we cross over this period of the 1970s and 80s, is a period that I will be talking to you today about and what I have been doing in the past.

We will step into the 1990s in a period of liberalization in India, and suddenly we will be finding buildings that are actively controlled, that do not have to depend on passive controls, they have a global identity, multinational corporations will come into India, bringing in global identity, whether it is in the form of multinational corporation, which is a fast food restaurant chain like McDonald's etcetera, bringing in a very typical architectural identity which is globally the same and that has to be maintained.

So, buildings will be coming in which will be completely hermetically sealed in glass and RCC, glass and steel and they will not reflect any regional identity. And then again, critical

regionalism around the time or parallel will make another comeback, where architects with much more refined understanding will come forward to design buildings, which are in sync with the regional situation.

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Now, as you have gone through this course, you may have felt that there are certain things that are missing maybe there was some building that you had seen you were interested in studying, we did not cover it, or maybe more than one building. I accept that. I accept the fact that there are a large number of buildings that we simply could not touch upon in this presentation. You must appreciate the fact that we have got only about 40 modules in which we have to cover a very vast space in terms of the number of buildings and architecture, architects etcetera. And we are trying to summarize it all for you.

We are trying to give, leave behind certain guideposts for you, certain pointers for you. So, you can use that and build upon that knowledge and expand it to understand more deeply about modern Indian architecture that is where your interest lies. We have made an attempt to be able to cover up at least some of the most iconic buildings and what they mean to us architecturally, so that we understand their principles very soundly and if given an opportunity be able to apply those principles in our designs.

Critical regionalism case studies in India have varied from the Belgian embassy by Satish Gujral or the IIM new campus by Bimal Patel, Cidade de Goa by Charles Correa in Goa. The Gandhi Labor Institute in Gujarat by B. V. Doshi or this project by Christopher Benninger,

and this project by Shirish Beri spread in different parts of the country by different architects, all following the same vocabulary of combining modern architecture with a regional idiom.

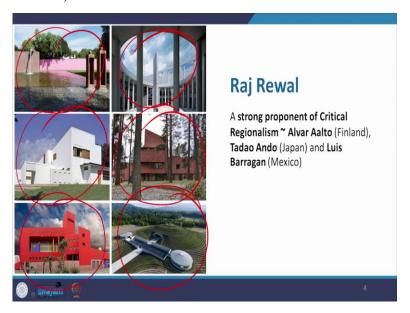
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One of the most strong proponents of critical regionalism in India has been Raj Rewal. He studied from SPA in 51 to 54, and then went on to do his education from architectural Association School of Architecture, and Brixton School of building in London and began his practice in Delhi in 62. He then began teaching in SPA, and by the time it happened 1974 came around, he set up a second office in Tehran. So, successful was his practice. In 1972, he had already executed what some consider to be the greatest project that he has ever done, which is the Pragathi Maidan or what we call as the Hall of Nations. And then he got the gold medal from the IIA in 1989. Chevalier des Art des Lettres award by the French government in 2005, and the Knight of the Legion of Honour in 2016.

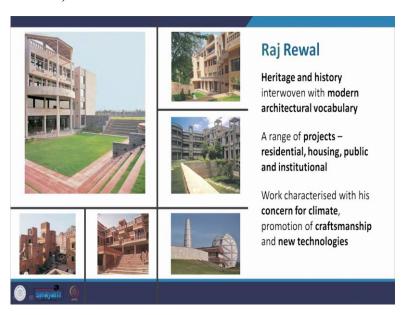
So, he is been widely felicitated by people or architects from across the world, for the contribution he has made to architecture in our country. He is a very strong proponent of critical regionalism, like Alvar Aalto.

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These works are works of Alvar Aalto in Finland or that have to Tadao Ando. These are the two examples of Tadao Ando or Luis Barragan in Mexico. So, these are the examples of Barragan's work. So, just as they combine modernism with the regional identity or give it a regional context, so does Rewal in his buildings.

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He takes heritage in history, and weaves it with a modern architectural vocabulary in a range of projects ranging from housing, residential, public and institutional buildings. And his work clearly shows his concern for climate and his promotion of craftsmanship, along with his deep desire to project new technologies in his building, so whether it is the use of vierendeel girders in the STC building, whether it is the tetrahedral space frame in the pragati maidan.

Raj Rewal has never shunned away from bringing in innovative technologies in India, where using these technologies, he already has many limitations, vis-a-vie the availability of material, vis-a-vie the availability of the mechanization needed to execute such kind of projects, etcetera.

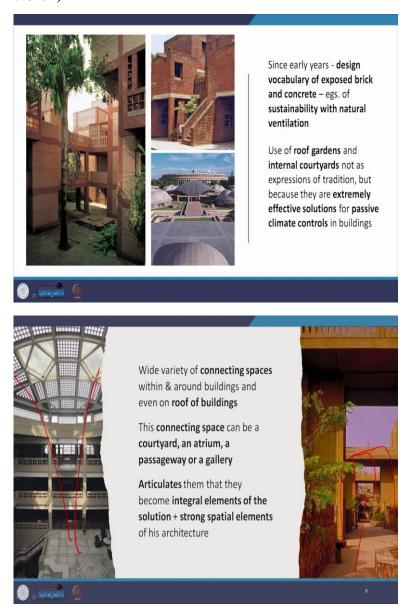
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He has a lifelong interest in space frame construction, first seen in his most seminal project, which was the Hall of nations. It is a tetrahedral form. And in all his buildings, he has dealt with culture, climate in history of North India, because primarily his buildings are in north India. And yet, in spite of confirming to the culture and history, etcetera, he has not moved away from the tenets of modernism, they remain, his learning his education in modernism is always there.

So, when you look at these modern Indian buildings under critical regionalism, they are not looking old. They do not reflect the form of some traditional building of the past. They do not do that. They are modern buildings. But when you look at them closely you know they are responding to this context.

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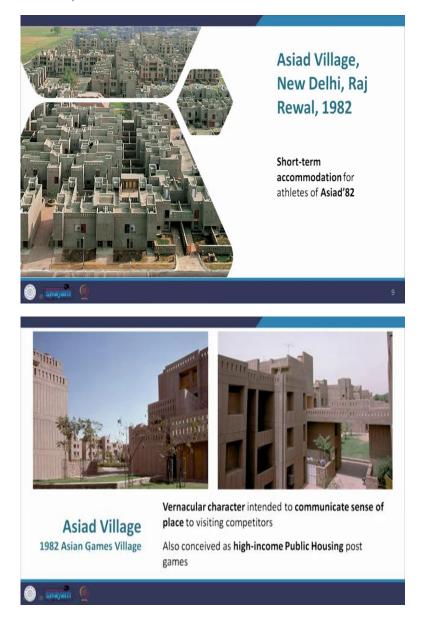
Since early years this design vocabulary has also been the use of exposed brick and concrete examples of sustainability with natural ventilation. He uses the roof gardens in the internal courtyards, not as expressions of tradition only which they are, but also because they are very good effective solutions for passive climate control in buildings with a variety of connecting spaces that he uses within and around the buildings and even on the roof of the buildings. He uses them, for example, a courtyard, an atrium, passageway, a gallery, in order to articulate them that they become integral elements of his overall design solution, but they also become strong spatial elements in his design.

So, for example, when you create this kind of a passageway in the Asian Games village, it is not only an integral part of his design because serves as the circulation pathway. But it also

becomes a very strong spatial element, the way the gateways have been created one after the other and the passageways going through it or the way this atrium is appearing in front of us in the parliament library building by Raj Rewal.

So, let us come to this project, which was one of his early projects. It was a very prestigious project because it was a part of the Asian Games being held in India and also heralding in India, the beginning of the color television.

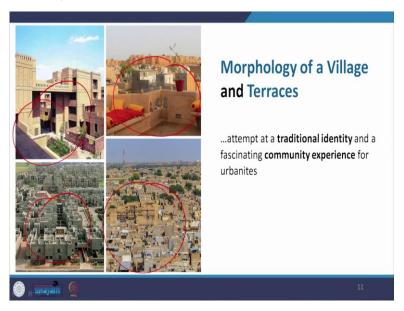
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With the start of Asia at 82 ,Color TV was introduced in India. And so it is a very, it is a benchmark date or a moment in our Indian technological history. So, this is a short term accommodation that was built for the athletes of Asia at 82. With the overall intent that once the athletes leave these apartments will be sold off to other people. And it will be a high

income public housing because they were to be sold off to the high income group. It has a vernacular character, which is intended to communicate the sense of our place to those who are visiting us from different countries of the world. It is also conceived like I said, as a high income public housing after the games.

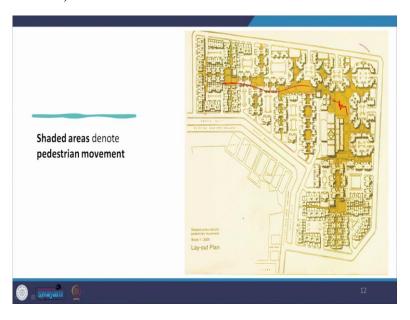
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Now, when we look at the Asian Games village, the morphology of the village is quite evident in it as well as in for example the terraces. It is clear that an attempt has been made at giving it a traditional identity and a fascinating community experience for the urbanites based on for example, Jaisalmer. So, if we have these terraces in Jaisalmer, connecting one house to the other adjoining terraces with parapets in between, we see a similar feature here in Asian Village.

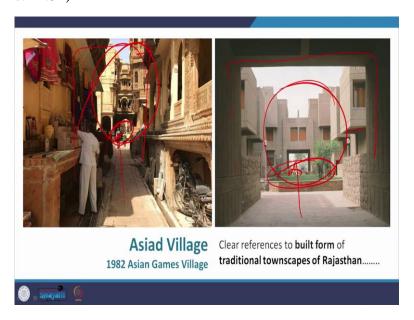
And if you have this kind of dense arrangement of houses, along narrow streets, which also provide mutual shading, then you have this dense arrangement of these modern day flats within the Asian village.

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The shaded areas, as you see here, show pedestrian movement all over these shaded areas. And this also indicates that much of the housing development here is pedestrianized, that cars are not able to intrude into these areas, thus making the place very safe for the children for the people walking and they can connect themselves from within by walking.

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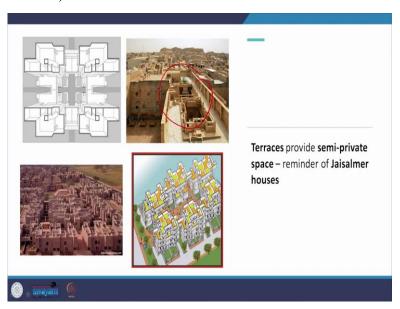


And there are clear references the build form of the traditional Townscapes of Rajasthan. Again, if you take this example of Rajasthan, if you look at the street and if you look at this street, of course, this is very well articulated, it is very well finished and well laid out in Asian Games village, but it speaks the same conceptual language that yes, there are these cantilevered projections as they are happening here. There is an attempt to create shaded

spaces as has been done here. And right at the end, there is a focus at which the built form is kind of enclosing the space and in between we have this open area or a community space.

So, the space is being reflected here, not ad verbatim, not with the same kind of ornamentation, decoration or elements etcetera. But as a concept, the idea has been taken up.

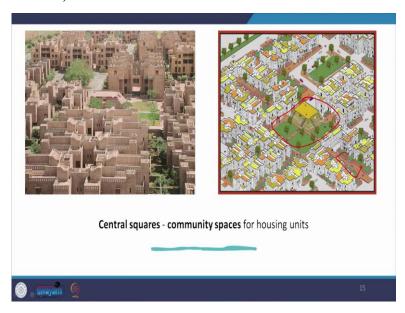
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Terraces are important. Now, in these days, when I talk to students of your age group, I know that you may not be able to relate to the idea of sleeping on terraces in summers in the composite climate for example, or even in hot humid conditions, because there was a time when air conditioning was not very easily available in our homes and even coolers are few and far between the terrace at night when the temperature would dip was a very pleasant place to sleep.

Many many people have spent their summer holidays in the houses of their cousins in different cities of North India, sleeping and having fun at night in north India on the terraces of North India. I am one of them and it is an amazing refreshing experience. And so the terraces were to be used like that and they were to be used as semi private spaces. And they are a reminder of the houses of Jaisalmer, which also have these terraces.

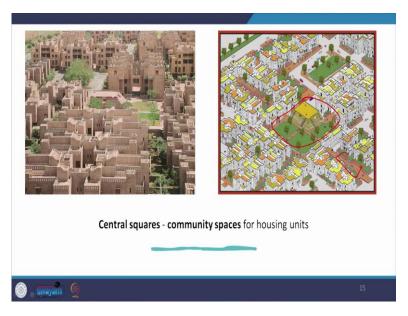
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The community spaces are spread all throughout the development. So, there is a central community space which is the larger one and then there are smaller communities spaces in between the housing units for people to interact with each other.

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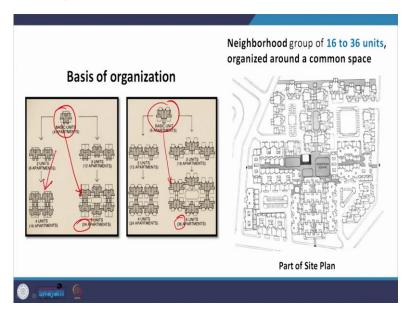




The traditional urban fabric of the 'mohalla' or the housing cluster is evident here also. So, if you look at the street of I believe this is another city in Rajasthan. And if you look at the streetscape, we are trying to, this is a more evolved version of that, if you look at the dense arrangement of dwellings, we find the same interlinks of Mohalla style within the Asian Games village, if you go back for example, here, you see it here. But of course, organized according to modern planning and design principles.

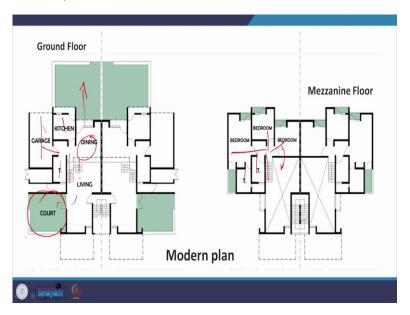
So, the road networks, the pedestrianized networks, etcetera, are all based on a strict geometry, strict proportion, as is there in the data as in our codes. And the clusters are interlinked by the series of gateways, they interlink the various clusters with each other.

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The organization by itself is such that the neighborhood group can expand from all the way to 16 units, all the way to 36 units. So, we can have a basic apartment of 4 units or we can have it of 6 units. And this 4 can be multiplied to create a cluster with the community space in between of 24 apartments. And it can also go on to make a cluster of this in this case, the basic unit has six apartments, this can go on to make it 36 apartments. So, it can be as low as 16 and as high as 36.

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And this shows the modern organization of the apartment. The apartment per se from within is a completely modern unit. It is like the maisonette of Unite d'habitation, it has a mezzanine, the living space as you walk in the court to the living space. This living space is double height, then you climb the steps and as you climb up, you reach this floor and you can look down into the living area and you have 1, 2, 3 bedrooms and 2 washrooms on the floor above. Here at this level, you climb a few steps and you reach the dining area here which is also got a rear courtyard. You have got a kitchen. You have got a toilet at this level to serve for the guests and then you have a garage opening towards or into the house.

So, the unit is so well defined that the formal areas are on the ground and the informal areas are on the first floor. And this is also has a mezzanine mechanism similar to the maisonette of Unite d'habitation. So, typical modern organization of planning but it takes care of providing those regional spaces that would work in such a climate where people would like to sit outside, the verandah or court in front and there is Aangan at the back of the house.

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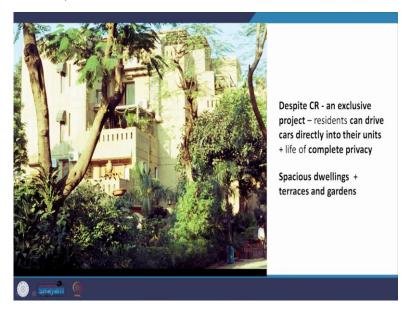


So, details that is terraces are there are privacy is through the parapet walls. The parapet walls are perforated to allow air to circulate as people are sleeping on the beds. So, through the parapet perforations the air would flow in and it would become a stronger breeze because it is going through smaller apertures. And therefore outdoor sleeping in hot summer months becomes a pleasant exercise, a pleasant endeavor.

Similarly, the building itself has been finished in rough cast brutalist work simply because this was the core reason of why brutalism came in, lack of proper technology or lack of adequate quality of material or labor and so on and so forth, became directly applicable here because this was a rush project 700 units had to be produced in 2 years and Beton brut, raw concrete finish was a style they could go on with and be able to create the buildings in this form without them looking ugly.

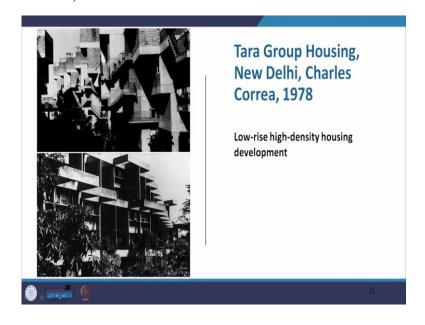
So, they have the example of Unite d'habitation and the buildings of Chandigarh as their precursors.

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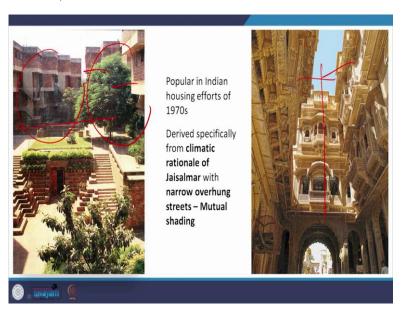
Despite critical regionalism, and despite the idea of bringing in a regional identity, some might wonder that you are fiddling with a modern building and the modern comforts and et cetera, etcetera. No, that is not happening, you see, with CR or the despite CR this continues to remain an exclusive project. Residents can drive their cars all the way up to their own units and there is a life of complete privacy. The dwellings are spacious and they have terraces and gardens. So, CR or Critical regionalism does not compromise on the modern lifestyle of the modern man.

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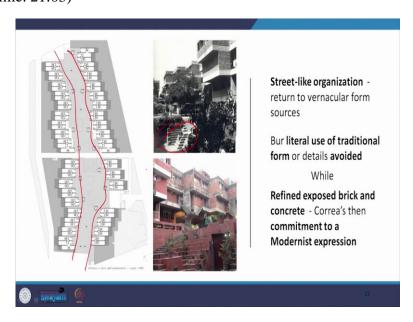
Then we come to the Tata group housing just about 6 years later. And maybe if I calculated correctly, about 7 to 8 kilometers away from Asian Games village this was built, and it is a low rise, high density housing development by Charles Correa.

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This is popular in Indian housing efforts of the 1970s this idea of low rise high density housing. And it was derived specifically from the climatic rationale of Jaisalmer, with its narrow overhang streets, leading to mutual shading, as you see here. So you find that kind of mutual shading happening with these overhangs of the Tara apartments and leading to this shaded coats on the ground below.

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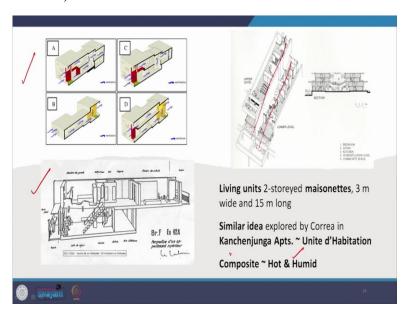


It is got a street- like organization, this is the street, a pedestrianized street in between. The two series of apartments on either side and this is returned to the vernacular sources, vernacular forms from where it is being borrowed. This has been much played upon, there are, for example, sunken areas in it, stepped areas sinking down some smaller sunken spaces, greens, and planters and trees, etcetera, so as to make the street a very lively pedestrianized street. But the literal use of traditional form or details is avoided.

I am again referring you back to the Asian Games village. And I will make this point again another project later, that yes, they were borrowing from the traditional or the regional idiom, but they were not borrowing in a manner of ad verbatim, they were not directly imitating what they saw. They were taking the principle or the idea behind it, and then incorporating it in a modern context. So, this is called a refined exposed brick and concrete structure. And we have talked about that in the works of Raj Rewal also that he also had worked with exposed brick in concrete.

I will again remind you that in the earlier days, it was Walter Sykes George and Shoosmith, who had brought in this kind of work in India. Then Correa's it was at a time 1978 when Correa's commitment to the modernist expression continued to remain very strong.

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Now, again, here the living units of the Tara apartments are 2-storeyed maisonettes, they are 3 meter wide and 15 meter long, very, very similar to the unite houses. This is the sample of the unite house. It is a one and a half house, whereas the maisonette in this case is a through and through one above the other. Now the similar idea has been explored by Charles Correa

in Kanchenjunga apartments, as we discussed last time, where these are also large, they are not exactly maisonettes size, they are much bigger, but the same principle applies. And it is in unite d'habitation and in a sense, the same kind of dwelling is found in Asian Games village also, which I just showed you.

And this is also the way Correa is able to shift himself in his approach towards climate from hot and humid of Mumbai Kanchenjunga to the composite climate of Delhi.

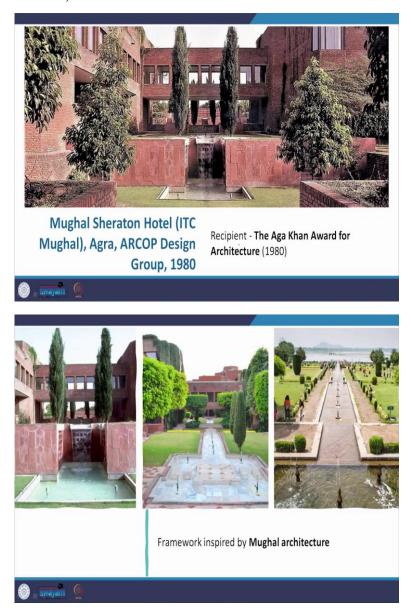
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So, here, it is got a different challenge the challenge there was the hot sun and the breeze coming in from the Arabian Sea, how to channelize the air to flow through the house, how to provide so much shading that the glare of the sun would not impact the building. Here issues can be different so internals streetscape is interpreted as a shaded green area, and it is completely informally landscape with trees and there is water to enhance the humidity and when evaporative cooling, evaporation takes place leads to evaporative cooling and the entire zone open zone in between evaporative cooling and the entire area feels the cooling impact of this process.

Now, they are terraced to fit the topography of the site. So, the kind of digging and sinking et cetera is not just done and hoc. It is also following the existing topographical profile of the site.

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A third project in the series is the Mughal Sheraton. This is now a hotel done in Agra by the ARCOP Design Group in 1980. So, we see Asian Games village iconic in 72, we see the Tara Group in 78. And now we see Mughal Sheraton 1980. It also received the Agha Khan Award for architecture in 1980. The framework of the Mughal Sheraton was inspired by Mughal architecture.

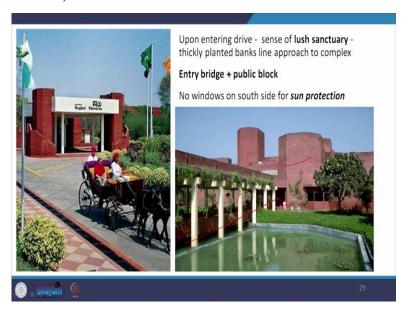
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So, I like to make a comparison here because I have taught you this hotel before. This is the Oberoi Bhubaneshwar designed by Satish Grover and this is the Mughal Sheraton by the ARCOP group. Now, I have if you remember those slides, go back and look at them. I told you that they were derived Oberoi Bhubaneshwar was partially revivalist and the derivation was from Hindu and Buddhist architecture. Whereas Mughal Sheraton has been derived from Mughal architecture. So, this is two different ways of dealing with the same problem. It is a 5 star hotel.

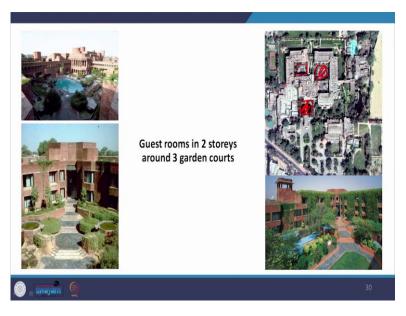
That is another thing that they are also responding to the nearness of the historical structures that are close to them. So, in this case, what they are and in this case being Fatehpur Sikri and Taj Mahal, they are also responding to that. So, Hindu and Buddhist in this case and Mughal in Mughal Sheraton.

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So, upon entering the Mughal Sheraton, we have this idea of a lush sanctuary with this thickly planted banks, as you approach the complex. And you go through the entry bridge, and you reach to the public block, but there are no windows on the south side for sun protection. ARCOP designers completely cut it off.

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There are guest rooms in 2 storeys around 3 garden courts. This is the second building that we are looking at, which is low-rise, so also was Asian Games village, low-rise building. And there are the 3 garden courts that you see you can see one is here, the second one is here. And the third one is at the very beginning here. So, three garden courts have been provided.

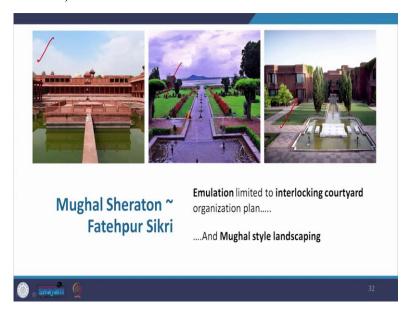
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And the experience of Taj Mahal and Fatehpur Sikri has been considered closely in the design. But again, the architects have avoided any attempt to copy their unique forms or details. So, I am repeating this for the third time in a third critical regional project of today. Neither Rewal nor Charles Correa nor the ARCOP group took these details or made any attempt to replicate them in their buildings in any manner. All they did was to take the principles and adopt them. And the principles themselves speak of the regional identity.

If you are an avid student of architecture, if you closely look at the buildings even with the reasonable interest, not even a detailed interest, your eye will tell you based on your experience, that this building is different from other modern buildings. It has at some X Factor and that X factor if you spend a little more time start understanding it is the regional identity. Now here I am talking about those who will not be here in classes like this to understand the X factor. Even for those there is always a subconscious feeler things are different in this modern building.

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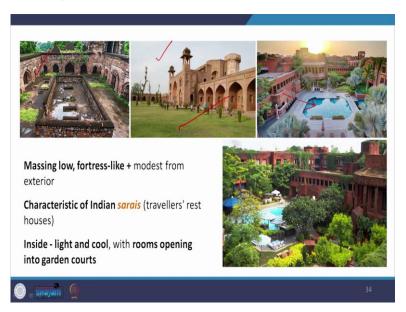
Now here, the emulation or imitation is limited to the interlocking courtyard organization plan that we find for example, in Fatehpur Sikri, where we have these interlocking courtyards, when we talk of the landscaping, we are reminded if you look at the landscape of Mughal Sheraton, we are reminded of the landscape of the Nishat gardens of Srinagar or you can call them the Mughal gardens also of Srinagar. Very clear resemblance is there, but please do not look at this image and say, this is imitation. There is a similarity in the image it is true, but only a small set has been presented here. When you look at it in complete detail, you will realize it is not an imitation.

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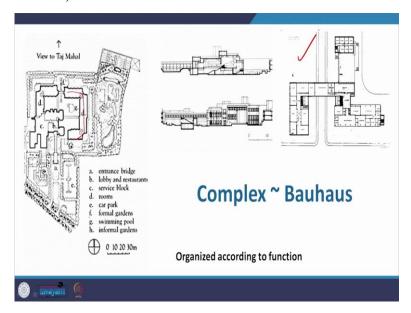
Now, coming back to the impact of Fatehpur Sikri, the interlocking courts that you can see here, there are a series of courts in Fatehpur Sikri. There are a series of courts and there are a series of courts here also that are connecting together. I wish I had more time to be able to identify and talk more in detail about these courts and how these interlocking courts then reappear in the Mughal Sheraton. So, the massing is low.

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It is fortress-like. It is modest from the exterior. It is also characteristic of Indian sarais. There are travelers lodges or rest houses that will built in those days for people to take a break, if they had been traveling for a long time during the day, so take a break in the night. So, this is an example of a sarai in the Indian subcontinent and this I believe is an old one step behind in Delhi. And inside the sarai, it is light and cool and the rooms open up towards garden courts and this is exactly what happens in the Mughal Sheraton. The rooms are light and cool, but you move out of the room you are looking towards greens and blues. The complex by its overall layout is more functionalist than Mughal. And therefore, the complex organization can be accrued to or associated with Bauhaus.

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In the way the blocks have been arranged, whether it is ABCD blocks and what each block represents. One is a set of lobby and restaurants and there is a service blog, there are the rooms. So, in this case, this derivation of overall blog composition based on function is coming from Bauhaus.

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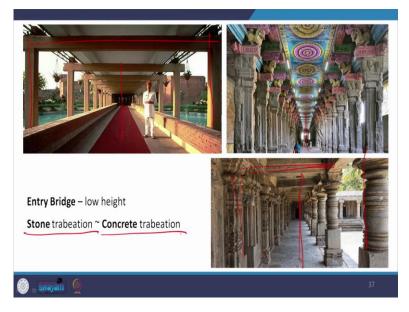


The pedestrian bridges that we find in the Mughal Sheraton are also a reflection of the pedestrian bridges in Bauhaus. And then the one of the strongest proponents of Bauhausian ideology in India AP Kanvinde, having brought the skywalks in IIT Kanpur, and we see them appearing in Mughal Sheraton. Now, in Mughal Sheraton, the skywalks are covered something like what they did in Bauhaus. And Bauhaus did that because of the cold in

Mughal Sheraton. They did that because of the heat, but in IIT Kanpur the skywalks are kept open from the top only at the one level below when people are walking underneath it on the ground level they have a shade or a canopy over them.

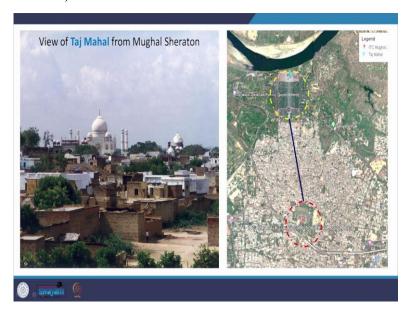
But when we look at this idea of a skywalk, yes, there are successes and yes on the other hand, there are failures also. I recently heard a comment that this idea of connecting the entire campus with skywalks that Kanvinde has applied in IIT Kanpur. There have been failures connected with it and the kind of success that was expected that kind of success has not been as forthcoming.

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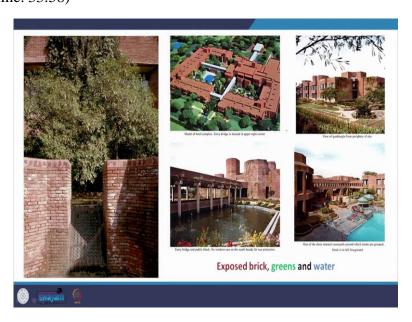
Now, when we talk of the entry bridge leading into the Mughal Sheraton it is a low height and compare it with another trabeated verandah movement like this. This is in for example stone, and here it is carrying this stone beam trabeated over these stone columns. Here it is an RCC beam over RCC columns. This is also low height. This is also low height. So, stone trabeation in the case of earlier Hindu temple architecture, etcetera, versus concrete trabeation.

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The view of the Taj Mahal has got much muddled over time. Once the view of the Taj Mahal from Mughal Sheraton was a very direct view today it is not so, there are a lot of other things that have come in the way cutting off the view and thus the view is going through a very dense area of the city to catch a glimpse of the Taj Mahal. Regard to materials, red sandstone was used in Fatehpur Sikri, expose red bricks have been used in Mughal Sheraton and on the other hand white marble which was used in the Taj Mahal, from the same queries the white marble has been taken and has been used in public spaces of the hotel.

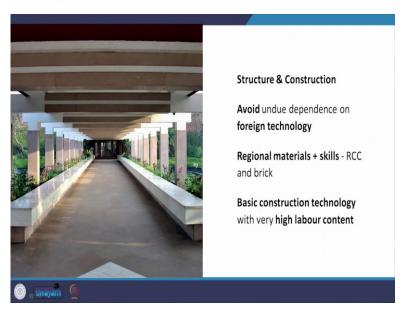
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Now, to show how soothing, how serene, how comfortable the whole environment would look with a combination of an earth material, the brick with greens and blues create such an

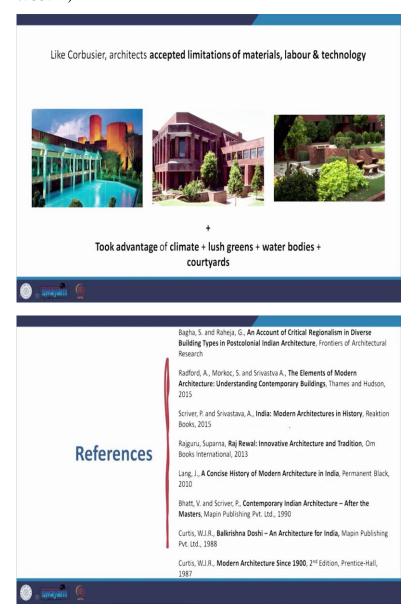
environment that automatically draws people to outdoor spaces and shaded areas and set outs etcetera. Because of the way it has been done. These images are a reflection of that.

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Structure and construction avoided undue dependence on foreign technology. They used regional materials in skills and they were able to use RCC and brick. So, basic construction technology has been used, which is very highly labor intensive construction practice has been utilized. We will again repeat these points later when I talk of the contributions of the structural engineer Mahindra Raj in a no particular project. We will again go back to these points when it comes to the way we are relying on certain devices to keep our buildings cool and comfortable, which is different from the way the Europeans would have approached it. And Charles Correa statements on that, we will look at that in a later presentation.

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Like Corbusier architects accepted the limit of the material, the labor and the technology and took advantage of the climate, the greens, the water bodies, and the courtyards. And thus, they were able to create a building that is truly a place where you can lay back, relax and really have a wonderful soothing experience in the Mughal Sheraton, without a doubt, a truly Agha Khan Award winning building. I will stop here for today and pick up from the next session by showing you a few more buildings connected to critical regionalism, all of them iconic, and we will end that trip by around the 1990s. Then there will be a kind of a gap. And we will look at certain buildings which became the domain of architecture during those years following immediately after liberalization, which is the tall building or the skyscraper.

So, we will have a look at that. And then we will come to the very last stage of our series, when we will look at new architecture and how it is evolving. And we will define it as a search for a new architecture. What is that new architecture we are having today? How do we search for it? How do we take the ideas ahead? Given the time we will also like to look at the contribution of women in architecture and also have a glimpse of structural works of this amazing structural engineer Mahindra Raj.

Thank you so much. I will see you in the next session.