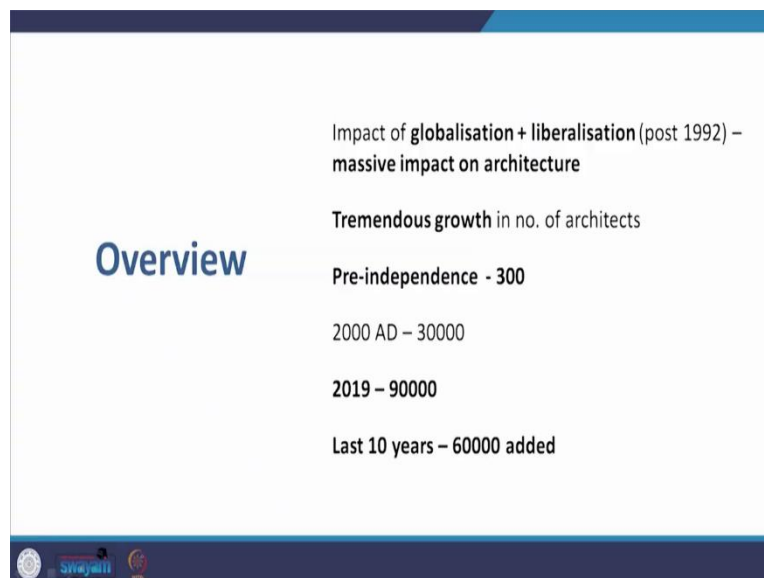


Modern Indian Architecture
Professor P. S. Chani
Department of Architecture & Planning
Indian Institute of Technology Roorkee
Lecture 38
Search for a New Architecture – Part 3

Hello students, we will continue our presentation on a Search for New Architecture. And today we will be looking at part 3. In part 1 and 2, we looked at how critical regionalism has evolved in the 21st century, how climate responsive buildings have evolved in the 21st century, how traditional knowledge systems have got wedded to very high technology of today to make amazingly interesting buildings that are passively controlled and not actively controlled.

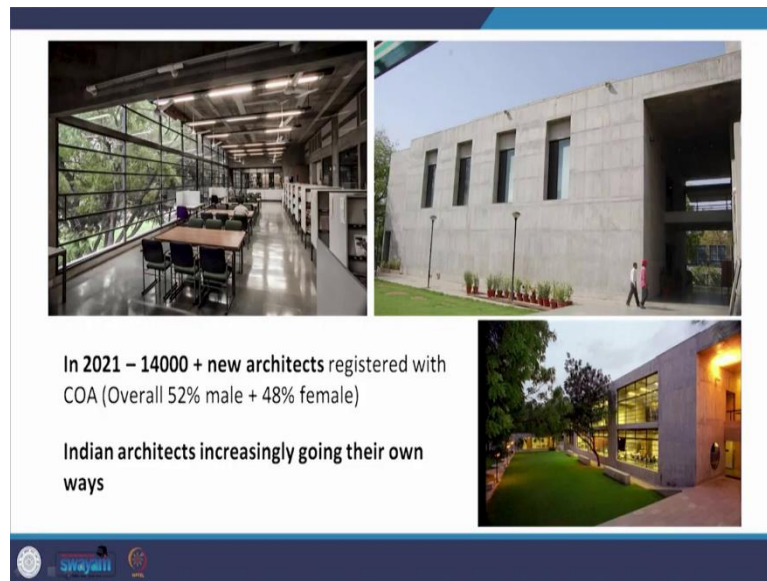
We have seen a series of works from various architects and firms like morphogenesis, and Sanjay Puri, etcetera, to see how these architects are evolving their buildings with regard to the climate outside, and thus contributing to a sustainable built environment.

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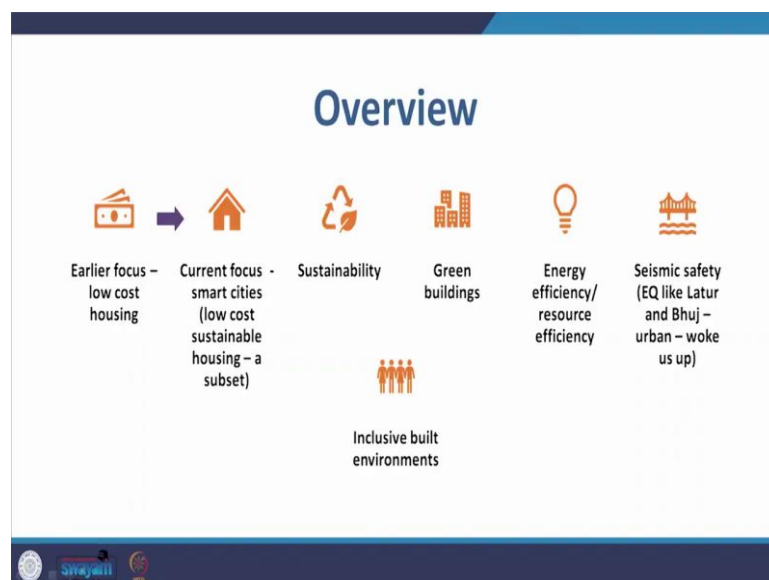
Moving on today, we will start by ending these presentations, and the series of 40 modules by looking at a genuine search and questions that need to be asked going forward into the 21st century. We know that globalization and liberalization post 1992, have had a massive impact on architecture. And there has been a tremendous growth, even in the number of architects. Pre independence and we began the series we have seen the only 300 architects in India, that has moved up to what 30000 in 2000 AD 1000 ad 90000 in 2019 AD, which is a jump of 60000 over the past 2019 to 20 years.

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And in 2021, 14000 plus new architects got registered with the Council of architecture with an overall 52 percent male and 48 percent females, that chose a very healthy ratio of genders who are participating in architecture. Indian architects are increasingly going their own ways, not only are we increasing in the number of architects who are coming forward to contribute to the built environment and build a profession out of architecture, but also taking many different directions when it comes to designing buildings.

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To give you an overview of what is probably happening, one of the strands of this growth is that for example, I this is just an example of an overview. There are many other streams and linkages that are possible. And here is the only focus was on low cost housing. But the

current focus is on for example, smart cities, low costs, sustainable housing, which is a subset and then there is sustainability itself as a larger issue within Architecture and Planning, issue of green buildings, energy efficiency, resource efficiency, lowering of carbon emissions, we have talked about it frequently, seismic safety and resilience in buildings, particularly after the earthquakes of Latur and Bhuj, which, really woke us up.

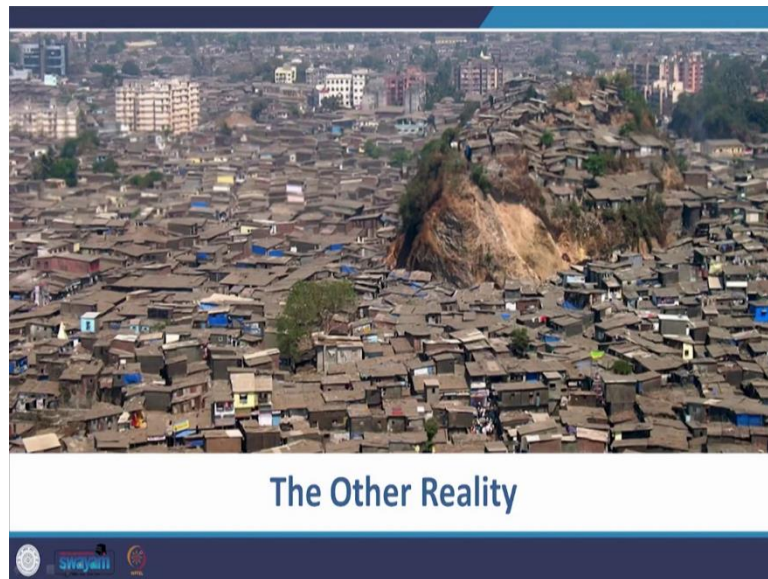
But then I am talking of resilience in general, it can also be floods, it can also be many other natural and manmade calamities, and then the rise of the desire to have an inclusive built environment, where every gender and every person with whatever ability he has, has a role to play and has easy accessibility to the built environment.

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Now, this city skyline is changing dramatically. I keep on referring to Mumbai as a case in point because looking at Mumbai is symbolic of looking at all the Metropolitan developments taking place in India. So this is the upcoming city skyline of Mumbai.

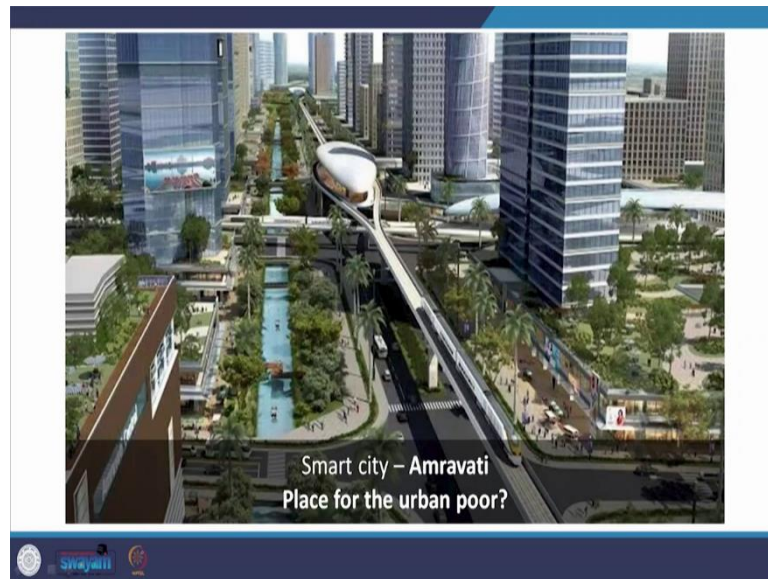
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But there is also another reality in the presentation that I have shown you earlier. With regard to point blocks, I talked about the tale of two cities. And here is the other city, the city that is undeveloped that is undernourished that is underemployed or unemployed, or employed in a very poor sector that is economically weaker, that is crushing from different parts of the country from the rural areas into the urban areas to find employment and work opportunities, and they are living in slum areas in Bombay, for example Dharavi is one of the probably is the largest slum of Asia.

And that shows the tale of two cities on one hand, the upwardly mobile, the economically rich, strong and upper middle class and even the upper class of people and on the other had the diametrically opposite in terms of on the economic scale.

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So, when we talk of smart cities like the upcoming Amravati. Is there a place in this kind of development for the urban poor? Question number one is there a place in our urban development for the urban poor.

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Overview

Difficult to describe contemporary trends in Indian (or World) architecture

Buildings open to interpretation and wider criticism - Information Age

Search still on for an appropriate Indian architecture, but no single architectural pattern/paradigm

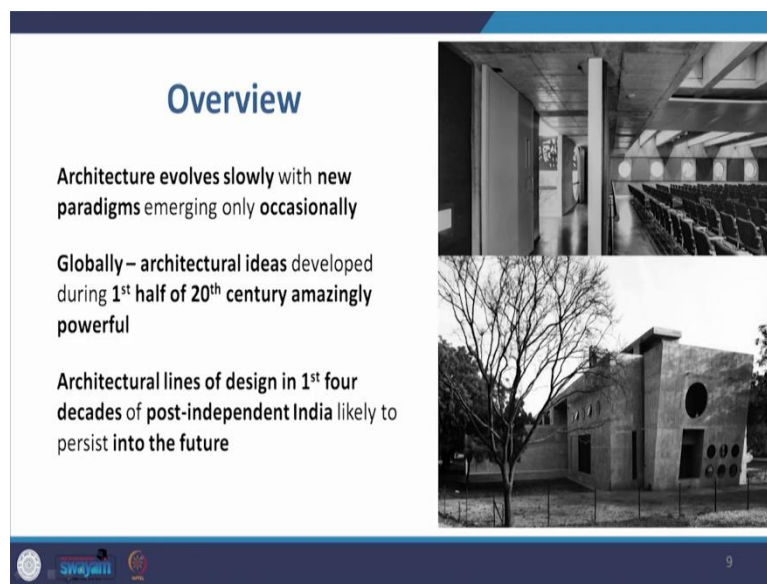
Ahmedabad Management Association Building, Bimal Patel, 1997 - 2010

Taking, an overview of architecture, it is very difficult to describe contemporary trends in Indian architecture. Now, that is also true of architecture, world architecture, and Indian architecture. But as it stands today, there is such a vast growth in built environment. There are so many ideas that are being explored so many styles, liberties are being taken. So many so-called architectural adventures are taking place, it is difficult to confine ourselves to one

particular way of looking at it. Buildings are open to interpretation in wider criticism today, because of the information age, everything that is built is immediately put online for perusal.

That might be true that that kind of opinion is very, very shallow because it is not based on post occupancy auditing. It is not based on a very methodical evaluation, but there it is, it is there in front of us. Now, the search is still on for an appropriate Indian architecture. But there is no single architectural paradigm that is really catching our attention.

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Overview

Architecture evolves slowly with new paradigms emerging only occasionally

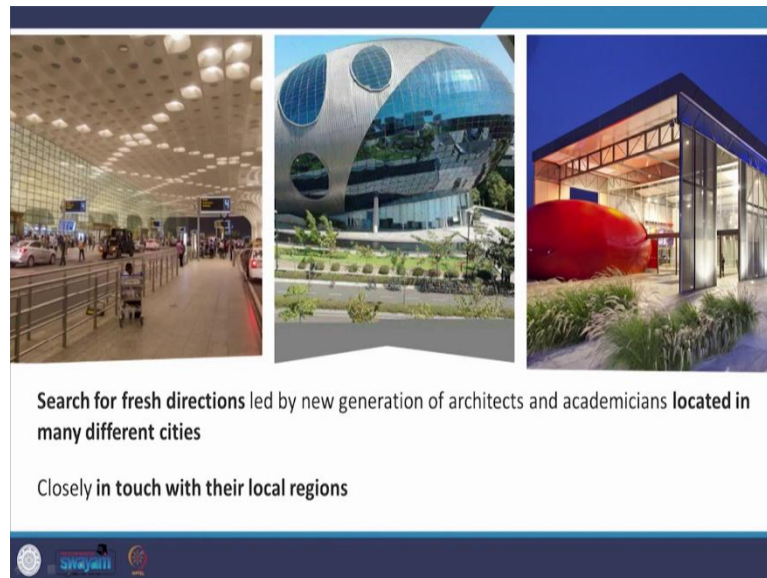
Globally – architectural ideas developed during 1st half of 20th century amazingly powerful

Architectural lines of design in 1st four decades of post-independent India likely to persist into the future

The slide features two images: the top one shows a long, brightly lit interior hallway with rows of chairs, and the bottom one shows a modern, single-story building with a prominent circular window and a flat roof, set against a clear sky.

But that is also true that in architecture paradigms evolve, but slowly and occasionally and globally, architectural ideas developed at an amazingly powerful way in the first half of the 20th century. And architecture lines of design in the 1st four decades of course, independent media also hold a similar amazing power to define the future architecture within the 21st century. For India, the ideas and concepts and paradigms that were reflective that reflected by modern architecture in the world. And by the modern Indian architecture, post-independence in India continues to play a dominant role.

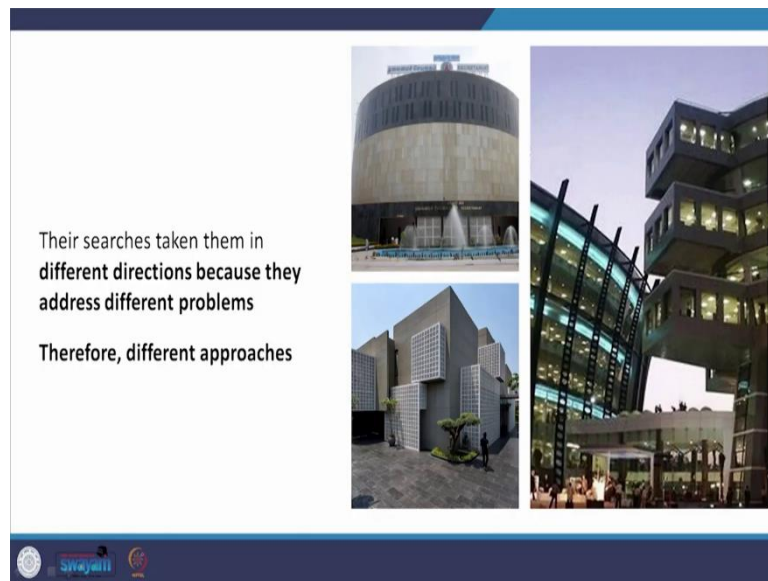
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Now, there is a search for fresh directions led by a new generation of architects and academicians, which are located in different cities, and they are closely in touch with the local regions having their local realities their local problems in the local socio cultural and economic profiles. That is also true for other forms of art, just to give you a sidebar here, if you look at our movies today, for example, so many of them are now focusing on local issues or they are they are developing out of there is a local backdrop to the movies that we create. There are small cities and small towns where the stories are based, rather than having all our movies being based in either in big cities or even having song sequences in Switzerland etcetera.

SO that seems to be coming to an end, whether we talk of movies, like I said, this is digressing from my topic, but definitely in architecture, local, local and regional realities are playing a very important role.

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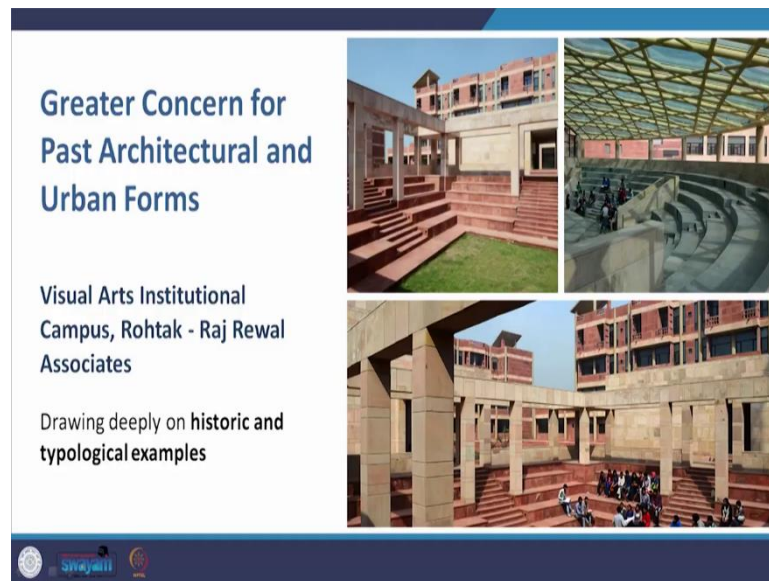
Their searches have taken them in different directions, because they are tackling and addressing different problems. Therefore, there are different approaches, whether it is an approach like this or it is an approach of Sanjay Puri or it is a building like this, all of them have found a place in growing Indian architecture today.

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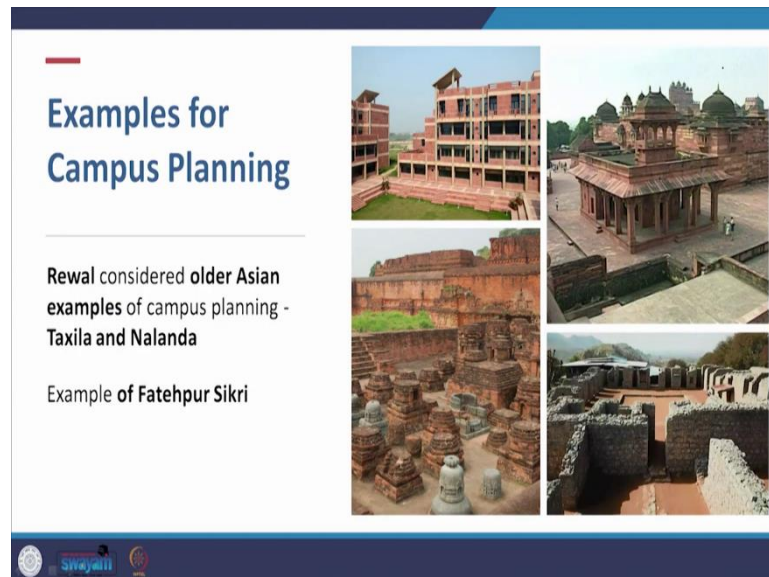
There is a coexistence of these various approaches that is embracing Indian architecture, maybe this critical regionalism or is it or it is the work of an architect like office contractor, or it is a kind of this efficient, organized critical regionalism of an architect like Raj Rewal.

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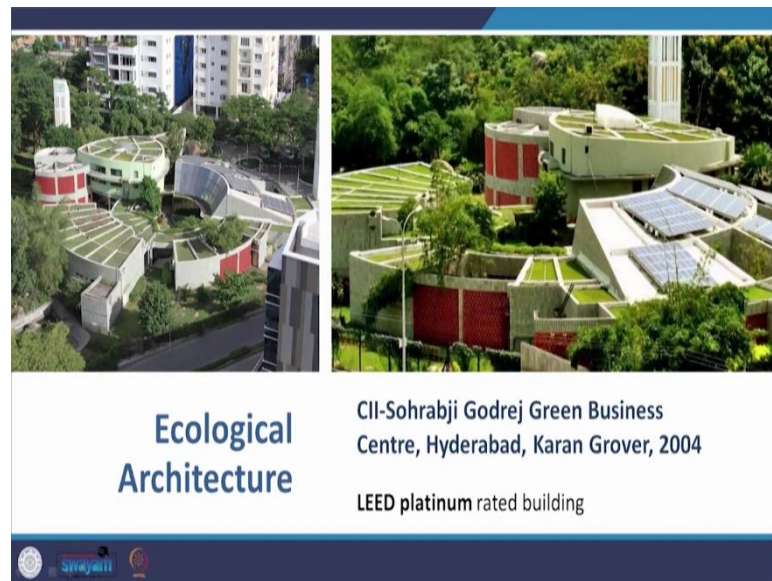
Now, there is a great concern today for past architectural firms and past urban firms. Take for example, the visual art institutional campus in wrote by Raj Rewal associates, in draws deeply from historical and typological examples.

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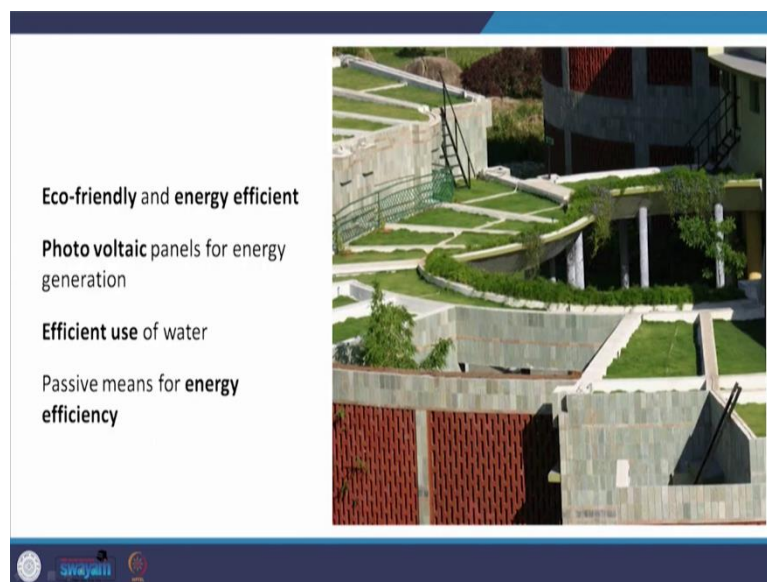
Rewal considered here as historical examples, the campuses of Taxila and Nalanda. Now, not only are there historical examples, they are also typological examples, there are type of campuses and this was a campus building. So he derived his answers from Nalanda and Taxila, and also he took the example of Fatehpur Sikri as a historical example for designing in north India.

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Then we have the ecological architecture of that of the CII-Sohrabji, Godrej Green Business Center in Hyderabad by Karan Grover in 2004. We are talking of green gating systems and green buildings. This building, which I have talked to you earlier also is a first LEED Platinum rated building in India.

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It is ecofriendly and energy efficient. It has photovoltaic panels should capture energy, it is an efficient use of water, it has passive means of energy efficiency. All this makes it the first platinum rated LEED Platinum rated building in India.

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Then there is the ecological architecture promoted by Christopher Benninger, through the Suzlon one Earth project in Pune. And this is also LEED Platinum rated building and GRIHA 5 star rated building.

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It uses nontoxic and recycled materials it uses aluminum louvers as a protective skin to keep out the sun to bring in daylight through which is without glare and to aid in cross ventilation. It is onset energy generation to photovoltaics and through wind energy or windmills.

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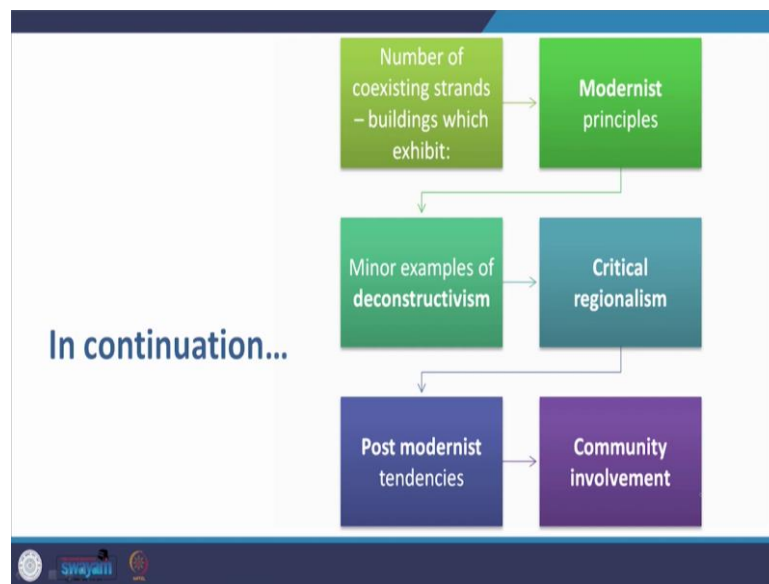
The planning is inspired from larger historical Indian, examples like that Fatehpur Sikri and the Meenakshi temple complex in Madurai. So therefore, it has taken the shape its lands campus, it has taken the shape of a long horizontal growth, turning it into what came to be what has been called as a landscaper visit, versus a skyscraper.

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There are major changes taking place in our buildings today, as I kept keep on repeating in my lectures, because of digital technology, tools and applications. We are coming up with amazingly interesting firms in various parts of our country in various cities, which are a direct result of digital technology.

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In continuation we see, there are a number of coexisting strands that enrich our buildings are being exhibited. There are modernist principles. There are binary examples of deconstructivism. There is critical regionalism in the 21st century that I have talked to earlier in the part 1 and part 2 for a search for a new architecture, that is post-modernist tendencies, and that is community involvement.

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A Purist Modernist Approach

Looking at the original **Modernist architecture** again

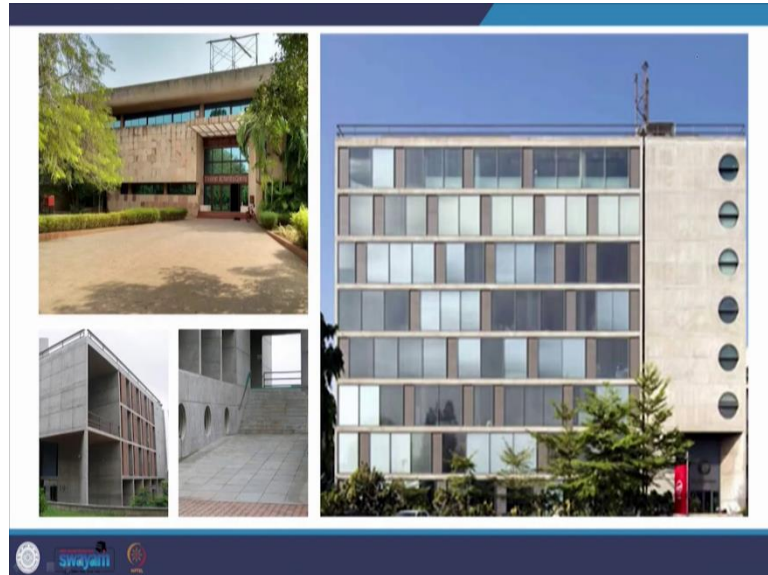
- Simplicity of form**
- Interpenetration of spaces** – 2 or more spaces penetrating each other mutually
- Precise detailing**
- High level of **craftsmanship** (vs brutalism)

The slide includes two photographs: the top one shows a multi-story modernist building with a prominent cantilevered section, and the bottom one is a close-up of a building's facade showing sharp, angular geometric forms.

Now looking at a purist, modernist approach like that of Bimal Patel, for example, looking at the original modernist architecture all over again, with its simplicity of form, interpenetration of spaces, that is 2 or more spaces that penetrate each other mutually that is, precise detailing this higher level of craftsmanship versus brutalism, that was rock concrete. Now, we found

for example, in the works of Bimal Patel, it is exposed concrete, but it is found finished exposed concrete.

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So, we have buildings like the Student Activity Center in IIT Madras and we have other buildings by Bimal Patel, whether it is on the IIM campus of campus in Ahmedabad and other buildings.

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**Modernist Principles:
Neo-Modernism**

Modernism made visually exciting

Mainstream work of many architects in India

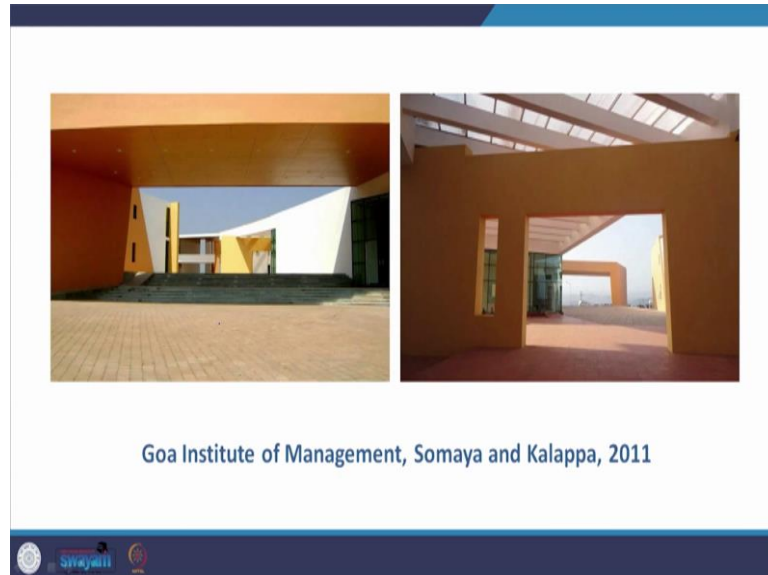
Updated:

1. Often response to climate
2. Response to new types of uses
3. Aesthetics

Then there is the new modernism that is coming up on the word new basically means a new form, or even simply say, new is new. So, this is new modernism, a new way of interpreting modernism, which makes modernism more visually exciting. Mainstream work of many

architects in India is referring to the modernism it is an updated form, which often is a response to climate, it is a response to a new type of building use, and it is a response to a new type of aesthetics.

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For example, the Goa Institute of Management by Brinda Somaya and Kalappa in 2011.

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And this building all the Gokaldas images in Bangalore, again, by Brind Somya and Kalappa in 1998. These works of Brinda Somaya, they reflect a very simple form of modernism with free flowing lines, and it is got a visual richness, which went missing from modernism and later on in late modernism.

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So, yes, late modernism has these geometric interplays and it has got this high tech from work or that you see or high tech form that you see in HSBC in Hong Kong by Norman Foster. It has got the use of no simple lines in the barrel vaulted Kimball Art Museum by Louis Kahn. It is not these curvilinear glass facades of various favorite Dumas, again by Norman Foster, or Richard Mayer's Athenium in Indiana, which is a further advancement in the idea of the white planar geometry of the international style. But in late modernism, it became far more complex because of better technology, better materials, etcetera.

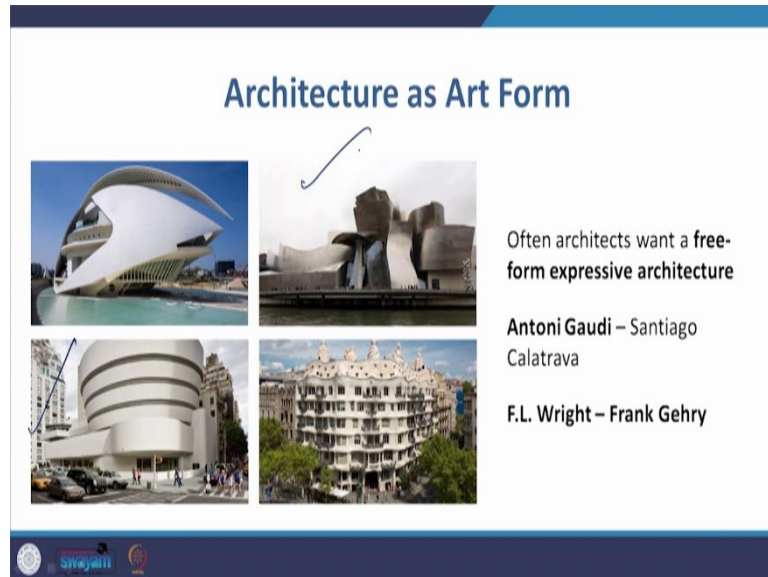
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Then we have Indian modernism, for example, the JMC house in Ahmedabad by Bimal Patel from 1995 to 97. It is an 11 storey office building with this simple block for maximum

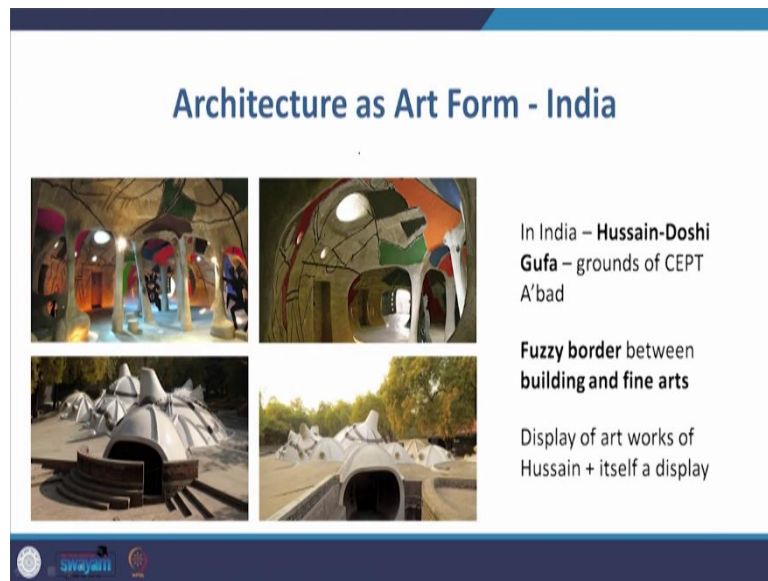
saleable floor area having vertical shaft of square glazed panels, which are having these opaque centers in between.

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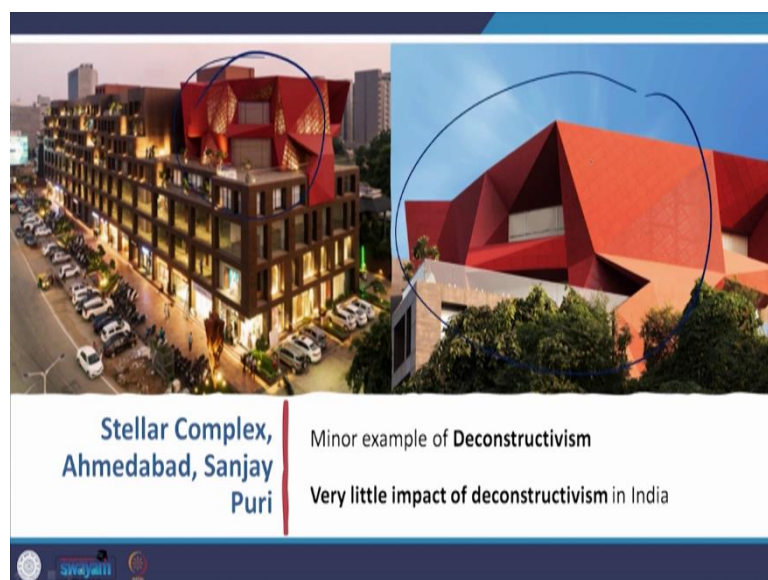
Architecture is also being looked at as, as an art form itself is being there, often architects have wanted to freely express themselves through their architecture, whether it is in Antoni Gaudi in the Casa Mila and Casa Batllo and other projects, or whether it is Santiago Calatrava in a sense of modern day Spanish Antoni Gaudi. And whether it is the work of Franco Frank Lloyd Wright in the inverted festival work of the Guggenheim Museum in New York, or the de-constructivist work of the Guggenheim Museum in Bilbao, by Frank Gehry. All of them are expressive architectural forms.

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And architecture is an art form can also be seen in India. There are many examples. In the next session, I will hopefully be looking at a couple of examples where we are looking at architecture as an art form. Did you see a simple example you might have heard of it, the Hussein and Gufa, which is on the set campus? It is a fuzzy border between building and fine arts. It shows it has a display of the artworks of him and Hussein, but Hussein Doshi Gufa in itself is an artwork.

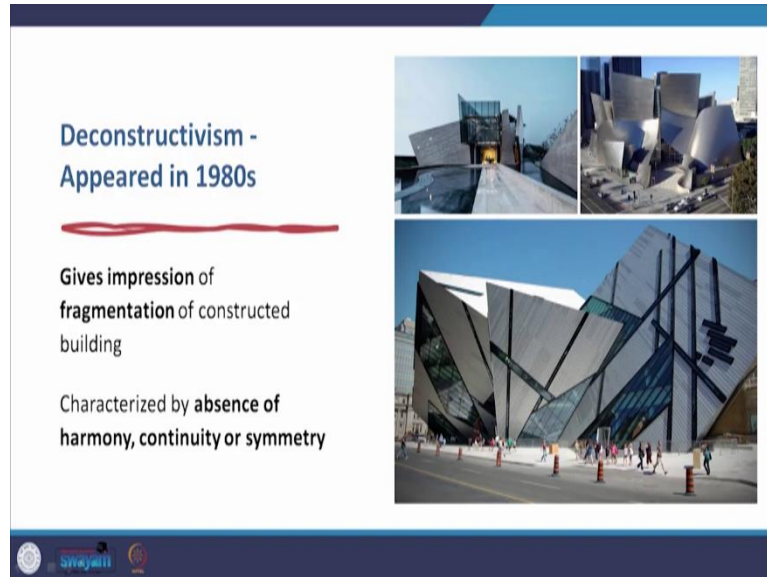
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Then there is de-constructivism. Now, in a very strange way, India has not really been touched much by de-constructivism. We see a profusion of buildings under de-constructivism in the West, but in India they are only minor examples. There is very little impact of de-

constructivism in India, for example, in the stellar complex coming up in Ahmedabad by Sanjay Puri, only one part of the building on a floor above is designed with using the de-constructivist principle.

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Now what is de-constructivism as it appeared in the 1980s in the works of Coop Himmelb(l)au and Frank Gehry etcetera, it gives an impression of fragmentation of constructive building, and it characterized by absence of harmony, continuity, and symmetry.

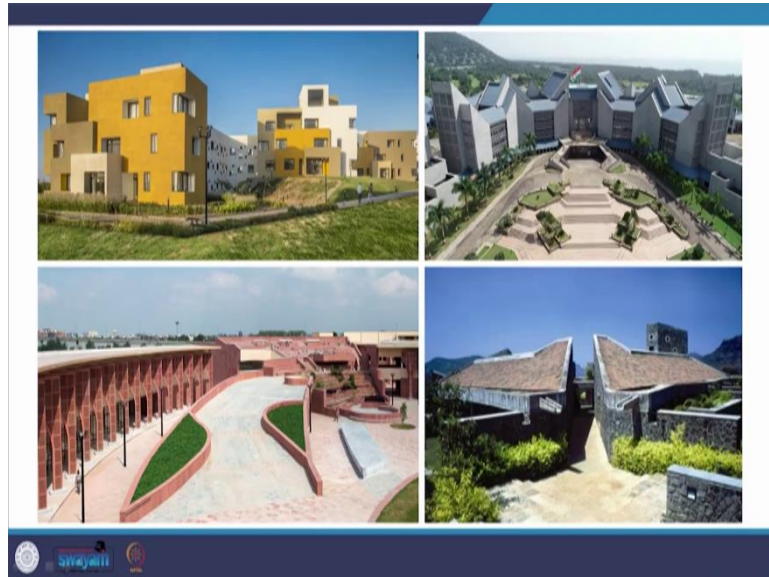
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Then there is of course, are critical regionalism or neo-traditional architecture, a neo look at traditional architecture, also called by John Lang, as truly modern Indian architecture. So we

have we are learning from traditional and vernacular architectural principles from various regions of India and combining them with modern architectural principles.

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We have the works of various architects like Archohm and Namita Singh, and Sanjay Puri, Raj Rewal, Shirish Beri, Christopher Benninger, all of them contributing to Neo traditional architectural style.

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Post Modernist Tendencies

Deployed – much architecture flamboyant

But many in property development encourage it – value driven design

And attractive to lay people

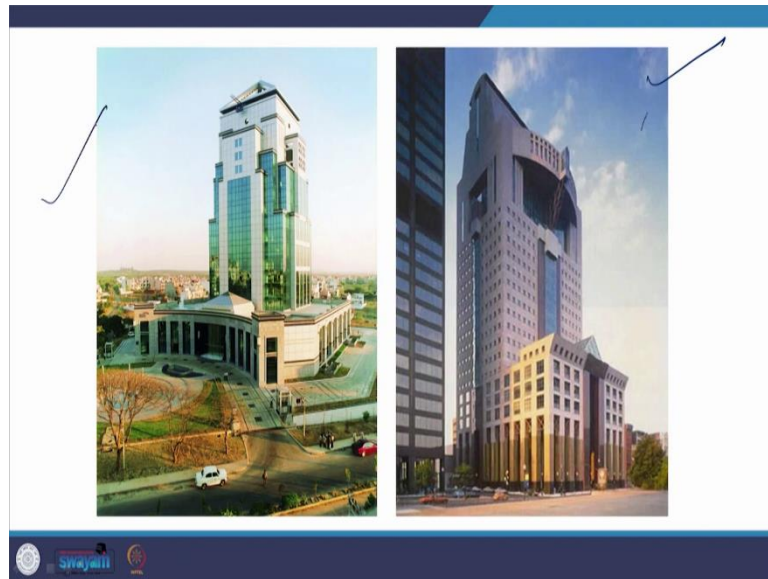
Eg. – cols. – classical Indian or European – signifying grandeur



There is of course, the post-modernist tendencies that we find in the work of an architect like office contractor, it has been deployed by purist architects, it has been looked down upon considered to be very flamboyant and garish. But there is no doubt about it, that lay people

find it very attractive, Hiranandani is a case in point, but Hiranandani garden project in Mumbai is a case in point. Along with that, property developers encourage it, because it is a value driven design. And thus, it has for example, columns which are either classical Indian, or even from classical European architecture, signifying grandeur, as you can see, for example, in this DLF building the Hafiz contractor.

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And then you can see the similarities between a post-modernist building in the West, this is the Humana building by Michael Graves in America, and this is Hafiz contractors building in NCR and you can see the similarities in the material typology the block itself and that kind of connection, because this post modernism of this contractor is not linked with any traditional historical architecture of India, it is borrowed from western, so called historical architecture.

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And so, these are the other examples of such buildings.

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And then of course, there is a post modernism that is derived from classical Indian architecture like the Vallabh Bhawan Secretariat in Bhopal by C.P. Kukreja architects and it has got these elements in it, whether it is the way the columns, the walls are bulging out like this, the forms are being derived from classical Indian architecture. And that is another way of looking at post modernism.

So, we will end here today, and we will then come to two concluding presentations on a search for architecture. We will look at some of the works of different architects who are

practicing in the 21st century, and the kind of work they are bringing forward in front of us the directions that we are taking in the 21st century. Thank you