Introduction to History of Architecture in India Dr. Pushkar Sohoni Humanities and Social Sciences Indian Institute of Science Education and Research, Pune International, Art Deco, Modern

In the 20th century as India increasingly became Integrated with the world order of trade commerce and architecture styles of architecture that were common in Europe and America came to India chief amongst these were the International style the art deco and the modern after 1947 modernism takes on its own life in India with a generation of star architects who were Indian and who were masters of modernism.

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But the whole story begins at the beginning of the 20th century when the United States starts building what are then called skyscrapers incredibly tall buildings where because of the technology that has to be deployed the architectural elements have to be reduced to a barium if you take a number of these skyscrapers of the early 20th century you notice that the bottom story and the top story if put together make a two storied mansion everything in between is filled and it is because technology suddenly progressed from building two-storied houses to 25 storied houses the top and the bottom stories were retained with all their ornamental features and the rest was just made functional and plain.

Of course the most iconic of these buildings would eventually be the Seagram building in New York which was built in the 1950s a building that hardly has any ornament but is pure functionality with its skeleton on the outside the structural system displayed on the outside and with glass paneling something that we see even today.

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But in the 1930s as buildings tried to go higher and higher architects started sculpting buildings in ways that buildings looked like unified objects.

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The ornament was not something applied to buildings the building itself was ornament this sensibility led to the rise of a style called art deco of which we have a number of examples in India particularly in the presidency towns Bombay and Madras the number of residential buildings built in the 20s 30s and 40s in India display a marker of being modern and this marker was having buildings built in an Art Deco style notice how the whole building is treated as one sculptural objects despite having rounded shapes on the balconies and at the edges of buildings for the most part the layouts of these buildings are quite conservative and rectangular the staircase becomes one of the most defining features of Art Deco buildings because one can let artistic an aesthetic expression lose it is after all a tower with very few requirements other than having a set of windows to let in light.

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A lot of new ornament was also invented in this phase of Art Deco where this is ornament that does not have the baggage of history, it is completely invented, invented at times from parts of machines it can be very mechanical it can have geometric shapes Chevron's diamonds look at the circular weather sheds on top of the windows look at the vertical bands that run up look at all this to come molding that you find below the sills all these by themselves have no meaning but yet together they operate as a system in fact the whole building operates as a system a system in which ornament is completely interlocked if one just looks at the sashes the Muntins the frames of the windows they too are extraordinarily and exquisitely done again with no inherent meaning of the own but working tightly with the rest of the composition.

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A number of very ordinary buildings also become Art Deco buildings in this period by using art deco ornament wherever they can again there is no shortage of such buildings across towns in India which had a substantial British presence on Marine Drive in Bombay are a number of Art Deco buildings in fact Marine Drive is one of the largest clusters of Art Deco buildings anywhere in the world recently declared a UNESCO World Heritage Site because of this the buildings of marine drive are absolutely unique in that we don't see that one defining feature that most

residential buildings in Art Deco Will use that is that central stairway the reason being that buildings on marine drive face the sea and the views of the sea are at a premium and one can never waste any of the prime sea facing areas in something like a staircase all the staircases of these buildings have been moved to the back therefore all the facades of Art Deco buildings on Marine Drive look like they're at the same height and none of them display any staircases notice here that a building that was originally four Storeys tall has had a couple of stories added to it on top by and large maintaining the character of the original.

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A number of commercial buildings in Art Deco were also built here again a central foyer podium or stairwell is emphasized a lot of ornament is coming in from the new world such as these statuettes they might look South American at times they might look Greek they might look Egyptian it really doesn't matter because they bear no meaning the idea is to treat the whole building as a sculpture.

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Even in lesser provincial towns such as Pune you have attempts at building Art Deco buildings in materials that are local and with expertise that is local this is the Bank of Maharashtra building built in the 1930s in an idiom that might be vaguely described as Art Deco the next step up from Art Deco was what one might call modernism and modernism is very difficult to explain architecturally but let us start with this building built by an architect called Mendelssohn in the 1920s an observatory called the Einstein observatory.

This building radically departs from buildings before it because it does not have ornament or shapes that have ever appeared in building types before this composition is one of three lines that the architect has made except for the absolute functional dome on top which every Observatory had the rest of the building tries to invent a completely new form without taking recourse to history perhaps because of the horrors of the First World War, the Great War the mother of wars as it was called a lot of Europe wanted to break away from its past and invent a complete new, new language for architecture.

Foremost amongst these was an architect called La Corbusier best known in India for his role in building Chandigarh, he built this villa called Villa Savoye again a radical departure from what a mansion or a house in Europe would have been just 20 years before it built of completely clean lines the building carries no ornament the building itself is ornament but unlike Art Deco in which the building is molded in ways that are still conservative and symmetrical here a completely new language of clean streamlined shapes and lines is sought you have floating and

intersecting planes you have structural elements that appear impossible such as a big horizontal cube resting on slender columns all this is possible because a new building material is emerging at this time a building material that will revolutionize building construction throughout the world reinforced cement concrete and all the early modernists seek cement concrete reinforced cement concrete as their building material because it allows them to create shapes that were physically impossible before.

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Another important contributor to this sense of modernism was a school called the Bauhaus school in Germany between the wars eventually its great practitioners moved to the United States where it also had a lasting importance and impression on architecture to come the Bauhaus school believed in a certain honesty of material of form ornament was actually utilitarian so the only ornament you have on this building is the signage that says Bauhaus and the fenestration which is ultimately very utilitarian the culmination of this school was with an architect called Mies van der Rehear who built this Seagram building in New York in the 1950s this would mark something called the International style and really set the tone for architecture throughout the

world whether it is a building in Bombay, Shanghai, Dubai, New York, London or Adelaide, all of his towers start looking like this now.

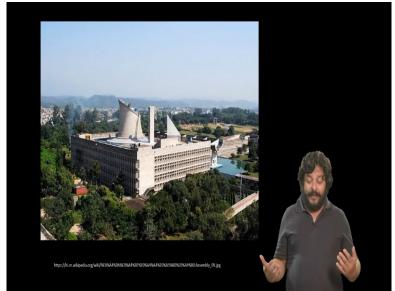
This represents the ultimate honesty in building material instructional systems and also in jettisoning the past for a shape that is completely new but to move backwards for a minute let us turn back to la Corbusier whose modernism of the 1930s is really marked by strange shapes like this Cathedral he built in a small French town of Ron chomp marks what was the modernism of the 20s 30s and 40s along with Frank Lloyd Wright in the United States.

La Corbusier a completely redefined architecture through the world this Chapel demonstrates a willingness to embrace shapes that have never been seen in buildings before these shapes have no inherent meaning they are not tied in with any historical moment in fact even the interior of this Chapel does things that are completely new nobody till this point would really expect big gaps between where the wall and the ceiling meet one would never have windows of such differing sizes this is also the period in which abstract painting is gaining ground the idea is that you are not faithful to the shapes of the past but the spirit of the past this building is very powerful and evocative but yet while seeking to in still in you a sense of calm peace and spirituality it does not have a single historical reference to cathedrals or chapels of the past.

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Corbusier is invited by Nehru to India to design what would be a modern planned capital the capital of Punjab Chandigarh is designed in great detail right down to the furniture by la Corbusier he also builds there a number of iconic buildings such as the Secretariat and the court these buildings again might have conservative office spaces on the inside but what you see on the outside is a radical interpretation of building elements none of which have any reference to the great history of India in the past but really look towards the future.

Wherever you have ornament it too does not follow any prescriptive patterns nor does it make simple and direct sense so if you look at the roofs the Assembly Building you will have shapes that tell a story of their own the forms are not beholden to history Chandigarh was set along a grid and you had hierarchy of streets and the whole city was divided into sectors many of which replicate each other eventually while the city was a resounding success for people who lived there it lacked a number of things namely an organic cultural field but this kind of grid planning is not completely new.

It comes to us in an 18th century city that was designed by the ruling prince of Jaipur Jai Singh in Jaipur is a 20th century building built by one of India's great modern architects Charles Correa the jawahr kala Kendra which Correa built or designed is built as a set of nine squares one of which is completely displaced note that this displaced square is actually a reference to the city plan of Jaipur which followed a similar kind of logic the courtyards that Charles Correa builds are truly Indian in nature while Indian modernism like with Correa like with BV Doshi will have references to India's built heritage.

None of these references replicate things done in India for example India has a lot of stepwells with patterns like this like this courtyard but yet there is a novelty a newness to this composition these spaces are quite wonderfully used in ways that the architect could only have foreseen even if you have courtyards and traditional space making not traditional architecture elements so while a house in Jaipur might have had spaces like this the ornament the austerity or the lack of ornament and the austerity of openings would never have been like this.

This is a modernist interpretation of a traditional past something Indian modernism has done particularly well and like la Corbusier Indian modernism did try and seek with the past seek a connection with the past Charles Correa also built a state assembly in Bhopal for the state of Madhya Pradesh a building with a grand dome that mimics the Sanchi stupa a stupa which is located in Madhya Pradesh and really is a marker of the state's early historic past the building is completely modern and the spaces that it creates are also unlike anything seen historically so while you have an homage reference a not to the Past the space is created by Indian modern architects are completely new.

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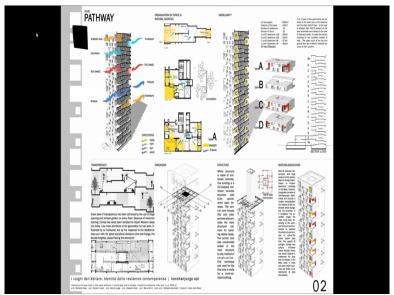




In Pune the entire University Centre for astronomy and astrophysics are Ayuka, again designed by Charles Correa displays a similar sensibility while you have all the elements that make Indian buildings courtyards semi open spaces domes the ways in which these are configured leave no doubt that the building is completely modern again these are also climatic responses to the weather one faces in India as opposed to the modernism of Europe or North America where the climatic considerations are completely different Indian modernism also had to respond to climatic conditions in India.

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An iconic building of apartments built in Bombay in the 1970s is the kanchenjunga building designed again by Charles Correa this building is unique for having apartments that are actually two stories tall we staggered levels on the inside while the building itself is reminiscent of a half done Rubik's Cube or a long cylinder which has been really scooped out of or maybe a tower of Jenga blocks the inspiration behind this was the chawl of Bombay the Bombay chawl is a long

tubular space for tenements and wind blows in through one end and blows out through another and it was this spatial information that inspired Correa so on the one hand while the spirit of the building is very much rooted in a historic tradition of the city of Bombay the building has a form that is a completely new expression it mimics nothing of the past the plans of the building are worked out with respect to this kind of tenement housing and the flow of air that goes in and out.

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While Charles correa and BV Doshi and a number of people were building buildings in a mode of Indian modernism Corbusier was given more commissions in India including one in Ahmedabad called the mill association owners building again a radically different shape built out of reinforced cement concrete but setting the tone for something that would be very popular in India later something called Brutalism in which concrete in its exposed form is left as it is because modernism was about honesty.

It did not wish to conceal materials under other materials to make buildings appear to be built of what they were not if a building was built of reinforced concrete everybody would see how it was built if the concrete was cast by having shuttering or formwork placed on it when this formwork was removed even the texture of the formwork was not smooth it over this was a raw expression of how the building was construct called brutalist because of the French word for raw

concrete Brutalism became very popular in the 60s 70s and 80s in New Delhi but also in a number of modern campuses across the country.

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In Delhi you can see many examples of fine Brutalism probably the brutalist capital of India it also had its fair share of sensitive modernist architects such as Raj Reval who built a building that was unfortunately demolished in 2016 the Hall of Nations at pragati maidan built as a solution to enclosing a large open space with a single span this building again looked back to

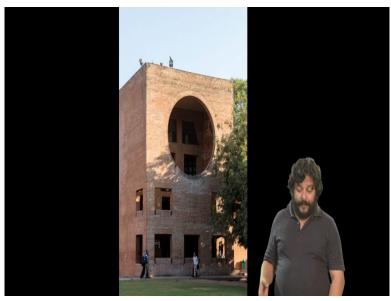
history for a number of principles but not its exact form this is the only Indian modernist building that's actually commemorated on a postage stamp in India.

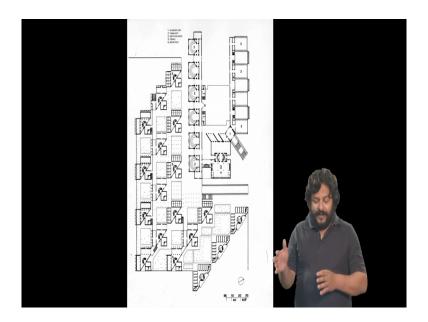
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The New Delhi Municipal Corporation building another fine example of brutalist architecture Corbusier is followed by another high profile architect who's brought in not from Switzerland this time but from the United States an architect called Loui Kahn comes to India in the 1960s and 70s and builds a number of buildings including the now iconic Indian Institute of Management the IIM Ahmedabad built largely out of brick it creates arches and all kinds of interesting shapes that in Kahn's own world only bricks could do the slabs on the inside are all built in reinforced concrete but the facades are all in brick.

Again an example of fine modernism this building requires no ornament to be placed on it because the building itself is ornament and is honest about the materials it uses it also is very very sensitive to the climate of Ahmedabad creating wind tunnels and cool spaces and shaded areas new interpretations of courtyards the buildings on the campus are arranged in ways that the movement of air and light through them is optimized.

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Another important modernist architect in India is BV Doshi the only recipient of the Pritzker Prize which was conferred upon him in the year 2018 this prize is the equivalent of the Nobel Prize in architecture he is the only architect who received it best known for a number of iconic works Doshi last major artistic commission was a collaboration with the painter MF Husain in what was called the Hussain Doshi Gufa in Ahmedabad on the campus of Sept the planning school his own practice and home a campus called Sanghat also has been unitized in a number of prints and paintings.

He is known for a number of mass housing projects in which while the shapes and the forms are completely new what is important here is that the massing of these buildings is very traditional his most famous project for housing was Aranya in Indore in which he did not design everybody's house but instead gave people a set of modular plans in which they were to build their own houses he also was very important in setting up and building Sept the School of Architecture and planning in Ahmedabad note in the 1970s his career is still following the principles of Brutalism exposed concrete with even the bolt holes on top showing.

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Here have been multiple architects in India who have tried to interpret modernism in their own way while not letting go of tradition the Lotus temple in Delhi built in the 1980s was as much an architectural marvel as it was an engineering marvel Indian architecture has come a long way in the 20th century from art deco to moving to the International style but really the big contribution of India is Indian modernism and it is this playful modernism which still continues to shape architecture in India and by architecture we mean carefully and deliberately design buildings and not developer driven building complexes where tower after tower looks absolutely the same.