

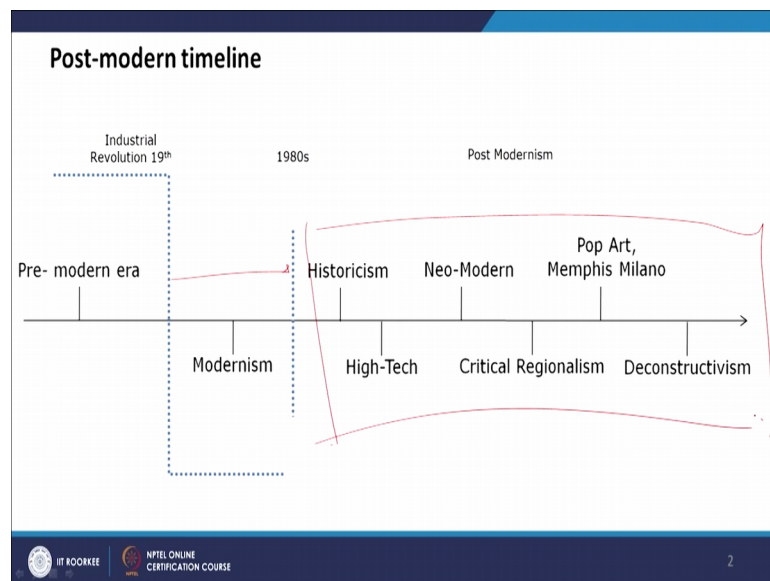
Contemporary Architecture and Design
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Lecture - 36
Phases of Post Modern Architecture – Deconstructivism Part-I

Welcome students to the online NPTEL course Contemporary Architecture and Design. In today's class we will discuss about another post modern architecture movement which is deconstructivism. This deconstructive architecture is one of the latest architecture movement in post modernism. In post modernism also we have seen that historicism was in the beginning then new modern and other high tech and other movement started and also we have seen critical regionalism we have discussed. Now, today we will discuss this deconstructive architecture style.

So, if you look at the time line it is this post modern was a pure more this movements were more based on the timeline. But most of the post modern are designed form was evolved mostly in the parallel time frame because it is just 1980s onwards. So, it is hardly 3 decades. And deconstructivism or the deconstructive architectures style was one of the newest form of post modern architectures style.

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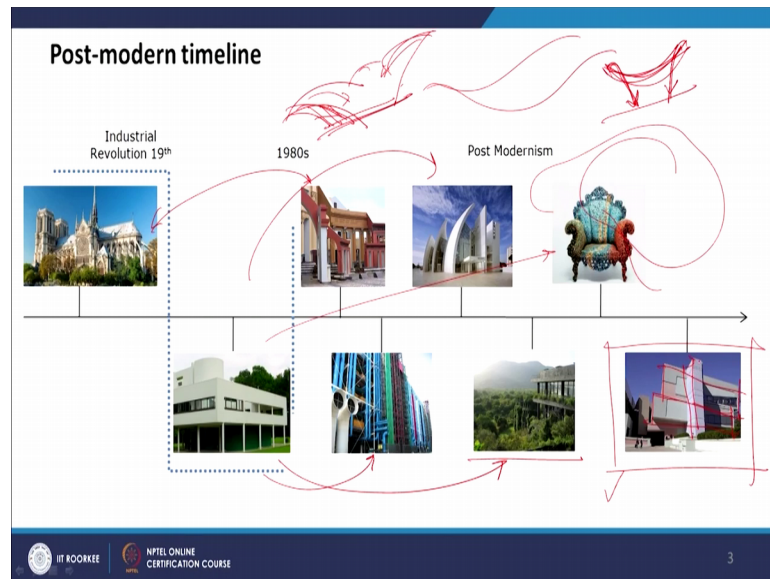


But when we connote the term deconstructive architectures style this has a precasure which comes from one of the modernist movement which was not movement which

flourished and got constructed, but this was only a very conceptual and small happened in a very small phase of time which is which was contrastructivism.

So, first we will discuss what is constructivism. But now, have a look at the deconstructive style of building which is added in this timeline of the photograph. So, we have discussed historicism and most of the architecture style of post modernism has something some reaction against the modernism in their design principle. So, historicism opposed the modernist concept of leaving all history from this architectural visual vocabulary. So, they went back to the history and they have taken many inspiration from the history.

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And then this high tech architecture style have taken further from this modernist movement late modernist movement of the third phase of this metabolism. And then from outside they have shown the services as the facade or the high tech technology has a facade in Lloyd building and other buildings like Pompidou center. So, all these technology where and also the construction can also be the facade like Norman fosters design, and glass and all these new technology. And the new modern change the modernity and we have seen how the duality of this modernism was there.

Then critical regionalism also opposed a total totally and the opposite side of the internationalist movement of the placenessness and this was a highly contextual and contextual elements where taken. We have also discussed one of the design movement

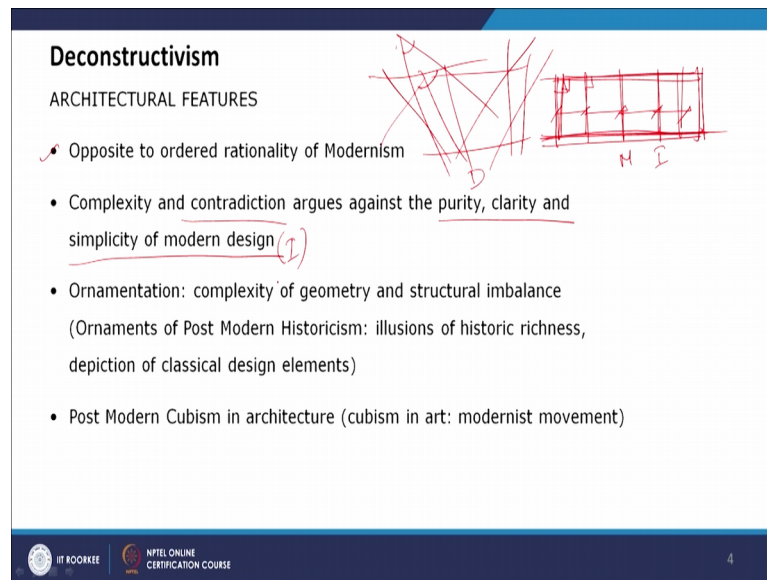
which is Memphis Milano. We will also discuss another few art and design movement which was close to the Memphis Milano like pop and other movement. And also we will discuss the what happened in the graphic design and typography.

Today we will discuss about the deconstructivism. The deconstructivisms idea was it was against the minimalist form of late of the high modern which is second phase internationalist movement. So, it is not less is more and it has a lot of complex form, and complex design elements where there and another is like it does not show the construction process.

Like many of the deconstructive style building when we discuss you might have a visual relationship with movements which was there in the tensile and shell. So, there were also a shell structures in the tensile and shell which was in the modernism like Eero Saarinen airports which we have seen and Kenzo Tanges tensile structure. But in that case the construction technique was the aesthetics.

So, we have seen in the Eero Saarinen airport, the way construction of the structure load was flowing that was the, and structure of the airport. And even the constructions shells of this airport of New York was shown a how this structure loads are flowing from this shell structure, but here in this deconstructive style we will see that the structure loads how it is flowing will not be explained through the facade, and the facade from outside will looks something else which actually is happening in the construction and the design process.

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Deconstructivism

ARCHITECTURAL FEATURES

- Opposite to ordered rationality of Modernism
- Complexity and contradiction argues against the purity, clarity and simplicity of modern design (I)
- Ornamentation: complexity of geometry and structural imbalance (Ornaments of Post Modern Historicism: illusions of historic richness, depiction of classical design elements)
- Post Modern Cubism in architecture (cubism in art: modernist movement)

The slide includes two hand-drawn diagrams in red ink. The left diagram shows a complex, overlapping network of lines forming a non-orthogonal structure. The right diagram shows a rectangular grid with several lines drawn across it at various angles, illustrating the contrast between modernist order and deconstructive complexity.

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So, the deconstructivism architecture features are opposite to ordered rationality of modernism, modernism was very organized and ordered and everything was in a particular visual sequence and one particular visual style was there it was not mixed and very minimal the lines will be has less inertia. So, if you discuss the visual principle from the visual aesthetic from the principle of designs. So, if the lines are horizontal or vertical it has less inertia. If the lines are angular and tilted then it has more inertia. So, deconstructive lines has more inertia and this all most of the lines if their rectilinear lines will be more angular and they will mostly avoid 90 degree.

So, it will be acute or obtuse angles will be more visible in the deconstructive line and this is a modern or internationalist modern movement, where there everything will be in the in the 90 degree grid. And we have also seen the similar grid which is visible from outside we have seen it in Farnsworth house and other buildings of internationalist movement. So, in deconstructive style it will be opposite to the modern internationalist movement visual style.

Now, complexity and contradiction argues against the purity clarity and simplicity of modern age of internationalist movement specially. So, there will be complexity and contradiction. So, this is the contradiction which I was talking about in the previous slide where there is a contradiction. So, we will discuss this building. So, there will be a contradiction of what is happening inside the building and how the structure flows inside

the building, but here in this style of Eero Saarinen design or Kenzo Tanges tensile structure or Eero Saarinen shell structure. There is no contradiction of what is happening in the structure. So, the way structure is working that will be visible from outside, but here it will not be.

The ornamentation the complexity of geometry and structural imbalance is the ornamentation. So, more you create that acute angle and if the lines are not in proper order and each and every line is flowing in a different direction then there is no there is a structural or the visual imbalance which will be created and that is a beauty that is a aesthetic principle of deconstructive style. That imbalance and more inertia, so it will have a more dynamic form in the if you think from the visual perspective. And so, this ornamentation is a post modern ornamentations of post modern historicism is different, so illusion of historic richness that was the style of ornamentation in the post modern historicism. So, each and every post modern style it is mostly it is ornamental. So, historicism took the ornamentation from historic buildings, which is pre-industrial revolution buildings all we are clubbing in one history.

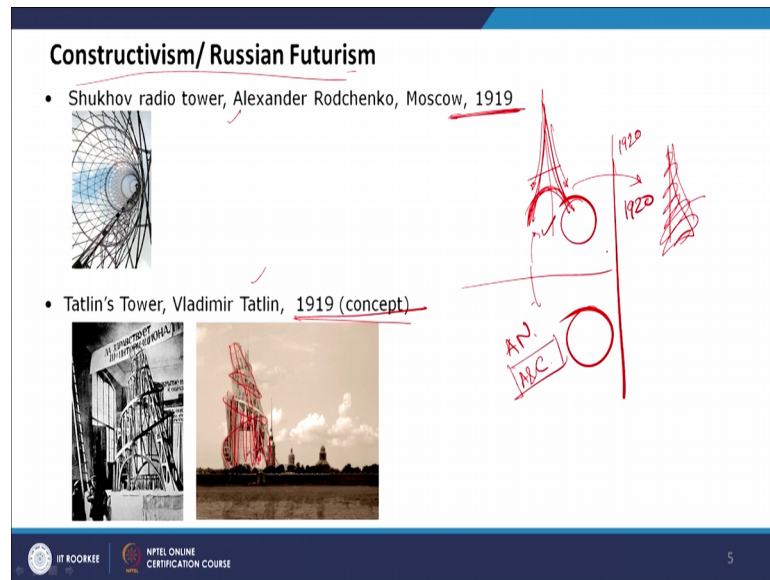
So, what you read in the history of architecture till industrial revolution. So, everything they can all these movements from classical architecture to gothic and even Baroque Rococo everything we are putting it has a history. So, from there they will borrow the ornamentation high tech will barrow the ornamentation has a new technology. So, that will be the ornamentation and then in critical regionalism the ornamentation will come from the particular regionalistic style. And then in new modern also ornamental because it will take from modernist style, but then it will mix it with the impure impurity and duality. So, it will again be ornamental like wall house of John Hejduk and Richard Meier's work.

And then here in the deconstructive style the ornamentation is complexity of geometry. So, many things will be added many different kind of lines and angularity that is the ornamentation of deconstructive architecture style.

So, post modern cubism in architecture. So, cubism is an art of modernist movement that is also (Refer Time: 10:23) indicator of deconstructive architecture style as well as the constructivism. So, from these two modern movements which did not flourish in mostly in art and from that the deconstructive style came in the architecture. So, these are some

examples of constructivism in conceptual in concept of architecture. So, all these works where mostly conceptual. So, it was not made in the real scale and few of the paintings are there and then from there deconstructive architecture style was is connected.

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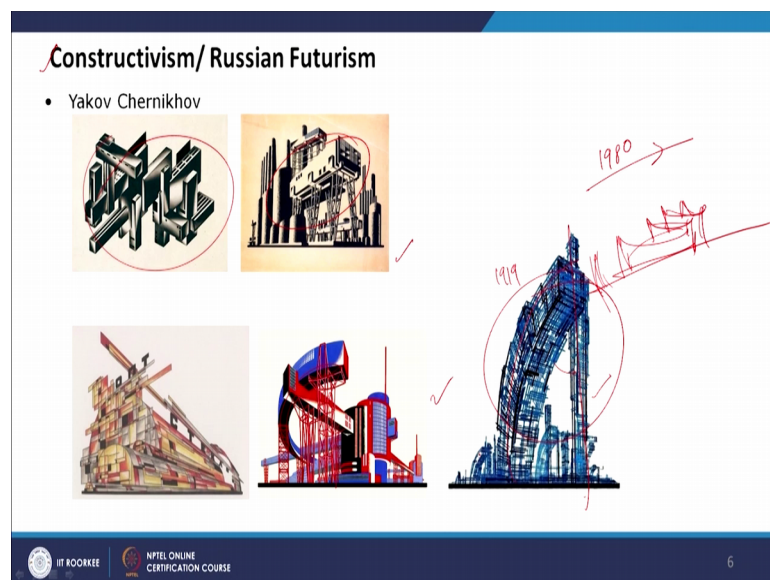
So, this is the constructivism and Russian futurism which we will discuss. So, this happened in the modern time which you can see in 1990. So, its modern first phase but all these are in concept. So, when these art deco and the other movements where happening that time there was another very another movement in architecture and art which is called constructivism. So, they started to show the power of new technology.

Because if you remember. So, in 1920s what was happening just before that there was a machine aesthetics and another was against the machine movement. So, for the machine movement they were making this Eiffel tower and then there also this art nouveau and art and craft movement and craft movement was going on which is on the opposite side. So, this constructivism has taken one step further from this machine aesthetics or the for the machine movement which was like Eiffel towers and other things were going on. But Eiffel towers was very structurally stable and bilateral symmetrical, so symmetric was there and the structural load was flowing in a proper way and there is a arch on the bottom. So, it was stable. So, in they made it.

Now, in modern, 1920s when the modernism actual modernism started, they started experimenting with the structure and then them made some structure which is which has

which is tilted and which has more inertia. And so these kind of structure they have made, but it was not possible with the structure knowledge at that time to make this kind of construction which is tilted and distorted ah, but. So, that was only conceptual in 1919s and 1920s onward. So, there were few designs by a Vladimir Tatlin and another architect from mostly from Russia that was a centre, but it was only a conceptual level because that was that time it did not flourish and because of the technique of construction it was so difficult. And that time it was the era of the parallel situation was world war and other things was going on. So, they focused on form follows function. So, all these Bauhaus and other movement came out and so this got faded away.

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So, other conceptual this paint painting of the conceptual architecture you can see. So, this was like huge cantilever and on some structural members and this kind of conceptual architecture was there which is tower is tilted and which is getting supported by this.

But this did not this none of these got constructed all these were in conceptual level. So, this was the constructivism that time they named it as a constructivism which later in the modern, even after even not in 1980s are quite after that the followed taken by this deconstructive architects. And then they made it and many of the deconstructive architecture like Bilbao it was when Bilbao Guggenheim museum designed by Gehry that time also it was quite difficult to design Bilbao Guggenheim museum we will discuss today.

So, this kind of elements were there in the Bilbao Guggenheim museum which is very fluid and lot of different lines were going. So, even many of the structural engineers came together and then they saw the structural structure for the Bilbao design, and so you can imagine in 1990's it was absolutely impossible to design this kind of futuristic concepts.

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And then there was cubism and Russian futurism in the painting where a the concept of deconstructive architecture also is has in has is got influenced by cubism and Russian futurism. So, one of the famous painting by Pablo Picasso is Guernica and then and Braque's painting and Natalia Goncharova over painting in the Russian futurism it talks about painting which is 2D and it can depict 3D form, but here it is depicting four dimensions in together. So, it is like a time dimension is also there. So, all these things are broken into a pure cubes and an experience of all these surfaces were there.

So, there is this violin and candlestick there was also paintings of tables and everything will be all these surfaces will be shown. So, if you look at Picasso painting of human faces the side face, front face and every faces will be there. So, it is like depicting capturing time dimension into the painting. So, here also if you look at the cyclist, it shows the movement, it is not one cycle, so first the cycle was here and then it is going in different lines. So, there are many legs you will see and hands that it depicts movements which is in the in a time frame.

So, in that way is everything is getting distorted and the cube and all the shapes will be broken into different multiple shapes and mostly rectilinear are lines of the cubs will be the unit of the this shapes. So, that is why the cubism and Russian futurism was there which talks about time and then breaking into a linear rectilinear forms. So, that was style which has many of the deconstructive architects have taken.

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Deconstructivism

- Waxner Centre for Arts, 1989, Ohio; **Peter Eisenman**

Ohio States University | Competition entry

Sense of incompleteness: turrets, columns, scaffolding-like structures

Aesthetics over Functionality & structure.

The slide features three photographs of the Waxner Centre for Arts, overlaid with red hand-drawn lines that illustrate the deconstructive design. The first photo shows the exterior with a red circle around a central structure. The second photo shows an interior view with red lines tracing a path through the space. The third photo shows a structural frame with red lines highlighting the scaffolding-like structure. In the top right corner, there is a red line drawing of a complex, intersecting geometric structure.

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So, it is the first example is Waxner Centre of art which is designed in 1989 Ohio by Peter Eisenman. So, this design if you look at, so this design talks about the sense of incompleteness and this incompleteness is there in the structure and visual. So, aesthetics is over is has its priority over functionality and structure.

So, if you look at this corner which has a bastion of a fort and bastion of a fort is a structural is a strong member, but if you cut it from this middle, it loses its structure strength. So, that was shown in this designs. So, the bastion which is a very strong heavy element is splitted from the middle. So, that is duality of the design and that is the like this is questioning the structure of and strength of particular element which already we have in the mental models. So, when we think about bastion of a fort. So, it should look robust and it should look complete, but that questioning our mental model and then creating a bastion which is not complete.

And now, when you start entering this Waxner Centre the series of column which looks like space frame or scaffolding like a incomplete structure and like a puzzle. And, but it

gives you a linear direction to the entry which is also making place and directing you to the entrance and that is that is aesthetics and as well as a functionalist leading you to the it is its also way finding element.

But if you look at the structure looks in complete and looks like a scaffolding and series of lines which is going on and which is definitely not minimalist because of this series of lines and this is added for the aesthetics and as well as a way finding purpose. Now, if you look at the inside of this building. So, this is a this looks like a columns. So, in our mental model of the mental image of the past experience the column should transfer the load to the ground, but this column is hanging. So, it is definitely not transferring the load to the ground and this is adding the load to a to the ceiling. So, it is also questioning the structure and this is pseudo column which is not exactly what it should be what we imagine in our mental model.

So, again there is a visual cue of another connection which goes in these two direction, but this is getting stopped. So, this is also incompleteness in the structure and this structural grid and this grid of this stair cases is not following this structure is follow is coming on in front of the stair cases. So, this is intentionally design, this is not a mistake of the design. So, this also creates the aesthetes and that is how it is not following the structural grid and that is what deconstructive architecture style is. So, it will not followed the structural grid and it will create some line which is not following each other that is why this is angular and other lines their will not be any relation to the with the other lines or in this case there is no relation with the structural grid and this functional or level changing devises.

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Now, another design by which is Aronoff Centre of design an art in Cincinnati by Peter Eisenman ah. So, this from outside if you look at the building this building looks like the floor plates of the buildings are tilted and you can from outside it will look like the building is totally tilted. So, it is taking a it is giving a visual cue of that the building is not a structurally stable. So, it is deconstructive and the construction is on the on the it is not following the lines. So, that was there in the Russian constructivism in the Tatlin towers, tilted towers and they were designing some floors which was totally tilted.

So, if you look at the floors will be tilted in this building right and then it is coming from one side and the juxtaposition of different cubes which comes which has a similarity with the cubism. So, this was again revoid in the deconstructive style. So, from outside it looks like all the floor plates tilted. But if you look carefully, this is the floor plate which is parallel otherwise in the tilted floor nobody can walk. So, it is from inside also there are lot elements which is going from and this has a cubist way of breaking the facade in small rectangles and then which is not following each other. So, there is like overlaps of series of rectangles and cubes on top of each others. So, you can see these inside and even the in the ceiling and from outside as well.

So, this is actually the fenestration and then this part is added just to give a visual cue of this fenestration is leaning, but it is not. So, this is actually the floor plate is ending over here, so as in this cases. So, from outside, what its portraying is not actually which is

showing. So, that was not there in the in the shell structure and tensile structure it was showing how the structure and construction has been done, but here it is the opposite.

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Now, another example is a Parc de la Villette by Bernard Tschumi. So, he have designed many structures in the in the parks and is also many example in architecture as well. So, this is also a have a similarity. So, you can have you can connect this with the visual with the style of constructivism in the Russian constructivism sketches and other. So, they started designing and getting inspiration from the constructivism style.

And here also there is a kind of incompleteness in the structure, this one grid and just this line visually connects this, but it is not structurally connected. So, you can imagine a void of a which gives void of a cube and, but still it is not complete then it is little tilt from here and a visual cue of a circle and one trash which is hanging. So, all these hanging elements and which is going from which is has different inertia different inclination is creating this composition which is very ornate and very complex in nature and which is opposite to the international style.

So, we will also continue with many other examples of deconstructive style of buildings and other things in the in design. In next classes next classes we will talk about the building, and then the other classes you will discuss all these post modern, designs in a post modern styles which we are discussing in architecture and how they have impacted in interior design and furniture design.