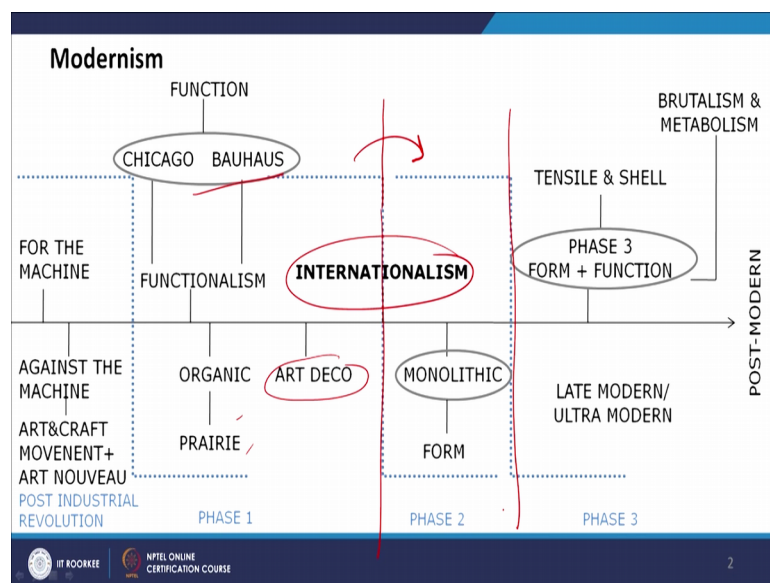


Contemporary Architecture and Design
Prof. Saptarshi Kolay
Department of Architecture & Planning
Indian Institute of Technology, Roorkee

Lecture - 18
Phases of Modern Architecture-Internationalism
Part I

Welcome students to the online NPTEL course Contemporary Architecture and Design.

(Refer Slide Time: 00:33)



In the previous class we started discussing we discussed the art deco style which was high on a ornamentation and which opposed the minimalist approach and pure colors and pure design concept of Bauhaus and De Stijl. So, after Bauhaus and De Stijl which is which embodied the minimalism minimalist style and abstract geometric style of design.

In art deco we have seen different patterns, tessellations and extravagant color palate like metallic colors and on black and more ornamentations which we have seen in a art deco. Now, after art deco again there is a internationalist style which evolved. So, it is in these phases it is not these all these different movements came up all most parallely, but one movement was in a reaction with the other movement. So, and that is how we are seeing after Bauhaus this is art deco and then after art deco this is internationalism. But actually it is not one after other it is almost parallel and just it is reaction against each other.

So, in internationalism what happened again they went back to the minimalist approach and the material aesthetics was again re-established and the aesthetics with the new material and new technology like steel, glass, glass cut in wall and that which we have seen in Bauhaus and De Stijl was again the style. And then there was this the style evolved with the form which was pure geometric like cuboid and cylindrical. So, interplay of these things and mainly the rectilinear cuboid was the style which internationalist design is celebrated.

And then this internationally style another key aspect was they thought in the modern phase I. So, you can see that internationalism is actually in the transition between phase I to phase II. So, what was happening in the phase I that there was multiple different architecture style evolved throughout specially in Europe and USA. So, some of the movements were in Europe like for example, Bauhaus, and like art nouveau, art deco and some of the movements flourish in USA first for example, Chicago movement organic and prairie and then art deco was also in USA also went to Europe as well.

So, now, internationalism the main concept was a design style which can be followed throughout the globe and it will follow the context of every surrounding. So, it was actually then opposing thought of organic which is which where they thought that contextuality in the design is very important. For example, we have seen that falling water building even in the prairie architecture say that evolved the style evolved through the surrounding like in prairie flat land and the grass was the stylistic inspiration for the color palate and visual mood board of the architecture style of prairie.

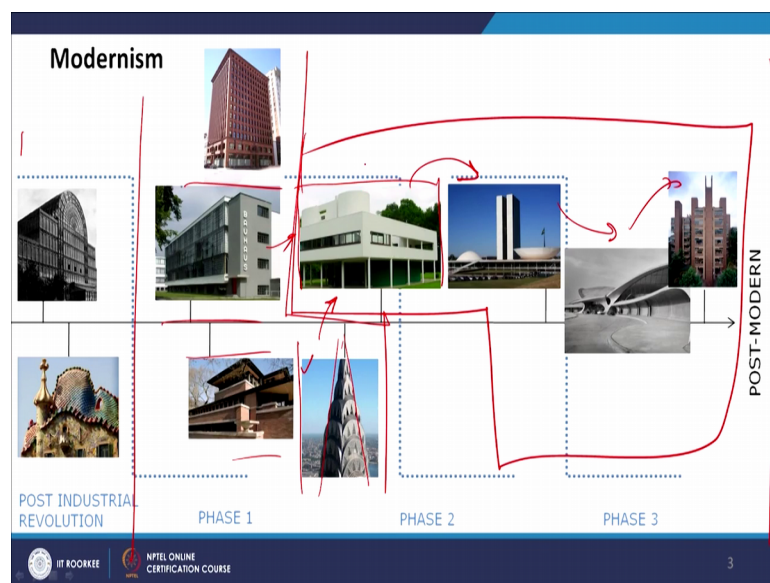
Even in organic if you look at the in hollyhock design how native flower is translated into the design pattern and even in the falling water how the local context, the natural context, the stones and the natural surrounding was translated into the built form. But in internationalism there was a key features of it and that those key features we will discuss and those features has to be followed throughout the, all over the world. So, that was the key identity of a key thought process of internationalism.

So, opposing all these different art and architectural movement there should be a one architectural style and art and design style which has to be followed. So, that is how in the phase II there was less variety and internationalism actually influence the phase II.

And phase II is almost extension of internationalism. So, this monolithic which will discuss in the next later classes; so monolithic is a variation of internationalism actually.

So, in phase II we have only an extension of the internationalism and then phase III we will see little bit more variation of internationalism. But in the phase II and phase III there was more it was just one style which was followed. So, from the internationalism these kinds of concept that throughout the globe there was one particular style in the contemporary which was going on.

(Refer Slide Time: 05:42)



Now, if we look so this was the art deco which was definitely if you look at we discuss earlier in the earlier classes. So, it was high ornamentation very extravagant just after world war one and then in internationally style just after world war one they were thought that. Now, the international it is it should come together and then one particular style should dominate and should be there in the throughout the international all over the world.

So, in international style if we look at, so you can see a visual coalition of a Bauhaus movement to the international style and then it followed later which we will discuss how it had been followed this particular style. So, from international style we call it high modern or the moderns architectures character and designs character was predominantly there.

If we just because modern is from just after post industrial evolution all are these are the movements within the modernism, but if we talk about high modern or the pure late modern then from internationalist we take that style as high modern because there lot of similarities in the this modernist architecture. So, and these are styles which came before because there was there were lot of variation in the stylistic approach. So, we do not take that as a high modern era. So, they have their individual different styles and they are very different from their philosophy.

So, from now onwards this is the phase II and phase III has the high we call it the high modern or the late modern movements that started.

(Refer Slide Time: 07:30)

Internationalism (Modernism Phase I)

ARCHITECTURAL FEATURES

- The term "International Style" first used in an exhibition called "Modern Architecture - International Exhibition" in 1932 at MOMA, N.Y.; curators Henry-Russell Hitchcock and Philip Johnson
- Minimalism: "Less is More"- Ludwig Mies Van Der Rohe
- A architectural style suitable for every place, irrespective of context; can be followed internationally

IIT ROORKEE | NPTEL ONLINE CERTIFICATION COURSE | 4

So, if we look at the features of architectural features of internationalism the term international style was first connoted in the modern architecture and international exhibition which was in MOMA, New York which is also a part of phase III internationalist movement, monolithic movement which was a continuation of a internationalism style, which is right now, in 1932. So, almost a decade after the modernist movements started. So, after 10 years, these 10 years initial 10-15 years was the phase I and then from 1930s around so this phase II internationalist movement started happening.

And the curator was Philip Johnson who was one of the famous designer in internationalist movement, but he also have done some examples of his architecture also

does not fall under internationalist movement which will discuss later where Philip Johnson's other kind of design is also there. But mostly his few famous examples are in internationalist movement. Philip Johnson and Henry Russel Hitchcock was the curator of this exhibition of museum of modern art.

Now, minimalism again was which was there in the Bauhaus and not exactly in De Stijl, but mostly in the Bauhaus that was there it was again a reestablished and this internationalist style was much more minimal than Bauhaus. Bauhaus still had some colors and the De Stijl has lot of ornamentation, some ornamentation in the De Stijl style, but internationalist buildings and the design is very minimal in their approach.

So, and the term less is more is connoted by Ludwig Mies Van der Rohe who sees when in the design approach if you if there is a minimal element than that is the more beautiful object. So, that is what the minimalism of the less is more this term is there. So, when we discuss the Van der Rohe's design and Philip Johnson's design we will in understand the why this term is coming and how this term is influencing his design his thought process is influencing his design approach in when he is designing the building and also he have done some furniture design was we will see that.

An architectural style was suitable for every space as the time internationalism, term internationalism converts that this particular style should be for all spaces irrespective of the context and can be followed internationally. So, this is what modernism of the high modern isms talks about. So, one particular style throughout the world, and that actually got opposed by post modern style. So, high modern this approach of less is more and this non contextual one particular style throughout the world this concept will be carried forward towards the last phase of modernism. And only after post modern only this thought process was changed.

So, whatever we see after this phase II. So, this less lesser elements and then minimalist approach and internationalist isms the thought of internationalism got carried forward with slight variation in the later stage is only in brutalism metabolism. And little bit in the tensile and shell structure and the that a little different, but mostly it is the same concept.

(Refer Slide Time: 11:25)

Internationalism (Modernism Phase I)

ARCHITECTURAL FEATURES

- Modern materials and techniques, prefabrication, machine-made > use of Steel and Glass
- Rectilinear form, Flat façade without any ornamentation,
- Visually light weight : cantilever, stilted structure (pilotis)
- Interlocking spaces, interpenetrating planes

The slide includes a diagram of a cantilevered structure with red annotations. A red arrow points to the top edge of the cantilever, labeled 'Glass'. Another red arrow points to the underside of the cantilever, labeled 'Steel'. The diagram shows a horizontal slab supported by a vertical column, with the slab extending further to the right, creating a cantilevered section.

IIT ROORKEE | NPTEL ONLINE CERTIFICATION COURSE | 5

Now, also the modern materials and techniques, prefabrication and machine made ascetics was celebrated again which was there in the Bauhaus and which also started from the for the machine movements. So, the machine the new material for example, steel glass and concrete it was shown. And then the prefabrication modularity was one of the key approach of this design and rectilinear form or rectilinear form with and other variations of the geometric form. For example, cylinders circles are also used mostly it is in the geometric form was used. But predominantly the rectilinear cuboid and cubes they were they used.

And mostly the structural system was shown as an aesthetics system as well and visually light weight we will see how the cantilever we were discussing Robie house and falling water building when there was this juxtaposition of solid and void in falling water building as well as in Robie house the free flowing cantilever and huge over hang gives a sense of floating structure.

So, when the concrete becomes very thin and it there is a cantilever, thin cantilever which is of a huge over hang then it looks like this concrete is not so robust it is light in weight and it is floating in the air. Because when after that if there is a shadow or a void comes which is like a glass it visually looks like because glass is a very fragile material and it is it since light cannot take the load of a concrete. So, this is concrete and this is glass. So, it looks like the glass is not taking, taking the load of the concrete because

concrete looks like a heavy though it looks like a heavy material, but it is floating on glass. So, these kind of aspects were overly used in the internationalist style.

So, we will see the floating cubes and a huge overhang looks very light weight in nature. So, in also some sometimes we will see that the ground floor is lifted on pilotis or the column and the top floors are heavy on concrete. So, it looks like it is floating on the ground. So, we will see some examples and we will discuss this how it came in the architecture as well.

And the interlocking space which is like free spaces which also there in the Bauhaus, which also came from the Bauhaus concept. So, free plan is also there and interlocking cuboids and interlocking different plates interpenetrating planes which was also the features of internationalist movement.

(Refer Slide Time: 14:31)

Internationalism (Modernism Phase I)

German Pavilion, Barcelona, Ludwig Mies Van Der Rohe (1929)

- This was the pavilion of Germany in the International Exposition 1929 held in Barcelona
- The built form comprises of horizontal and vertical planes, which gives a suggestion of maze-like formation
- The water-body and the small side-element balance the composition of the main volume
- Another pool with a statue repeats the exterior composition on the other side.

IIT KOOBEE | NPTEL ONLINE CERTIFICATION COURSE | 6

Now, one example is German pavilion by in Barcelona by Ludwig Mies Van der Rohe. He was a person is a famous architect who said the less is more which we were talking about and which was the key features of key stylistic approach of internationalist movement and as we have seen this is almost like from 1920 and this is almost a decade. So, it is 1929. So, this was the pavilion in Germany, pavilion of Germany which was there in the Barcelona Spain for international exposition in 1929. So, it was built for the as a pavilion and this comprises of the horizontal and vertical planes as we are discussing

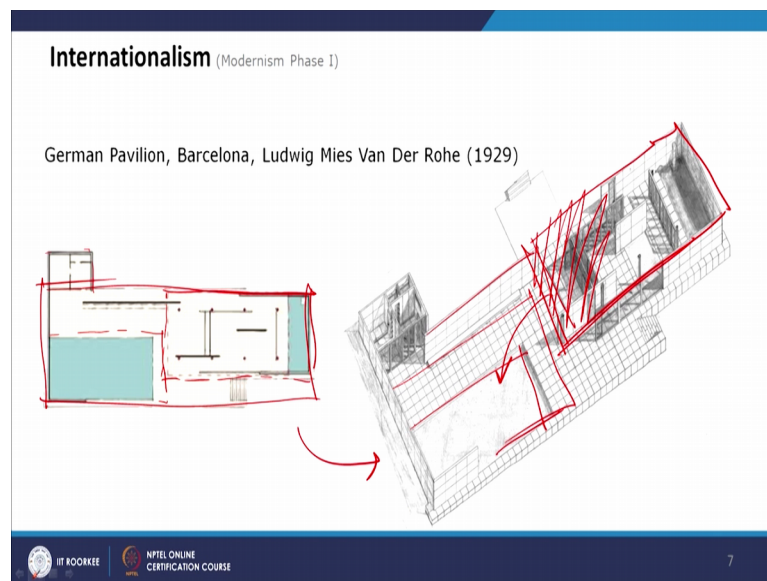
that interpenetrating planes and inter blocking spaces and of juxtaposition of cuboid and rectangles that that creates a building

And which gives the suggestion of maze like formation because of the interpenetration and amalgamation of different cuboids. And then the there is a water body we will see how this water body this water and solid and void was played in the and the which balance each other in the building.

And then another important thing is with there is a material which the material of this building was the true material and it was not painted and the color palate of the material was the true texture of this material and the monochromatic white grey and those kind of color palate was there.

So, if we look at the buildings plan. So, what we were discussing here the composition of the volume was a blend of solid and void there is a water body which kind of complements the volumes.

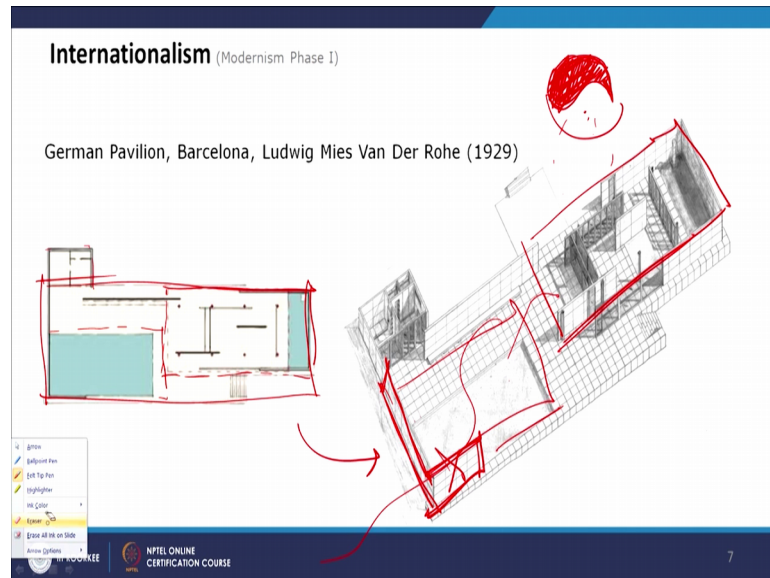
(Refer Slide Time: 16:26)



So, if you look at this is the site. So, if you take this as a visually this is the rectangle which we see and here in this design if we look at the axonometric. So, this is the volume which is acting as a solid and this water body is acting as a void. So, it is kind of a balancing.

So, here if we consider this roof which is on top of this part, so this roof is kind of similar in portion of this void this is the pool. And now, this portion which is which is solid is kind of counter balanced with the void which is absolutely almost of the similar volume. Now, this void could have been very loose if there was no such boundary like this.

(Refer Slide Time: 17:31)



So, this boundary which is here which is encompassing the void is actually giving the psychological or visual boundary of the void. So, if I compare this with the visual comparison of this as yin and yang logo so that also talks about the solid and void. So, suppose this is the solid part of the yin. So, I am deleting the circle which is there in the in yang.

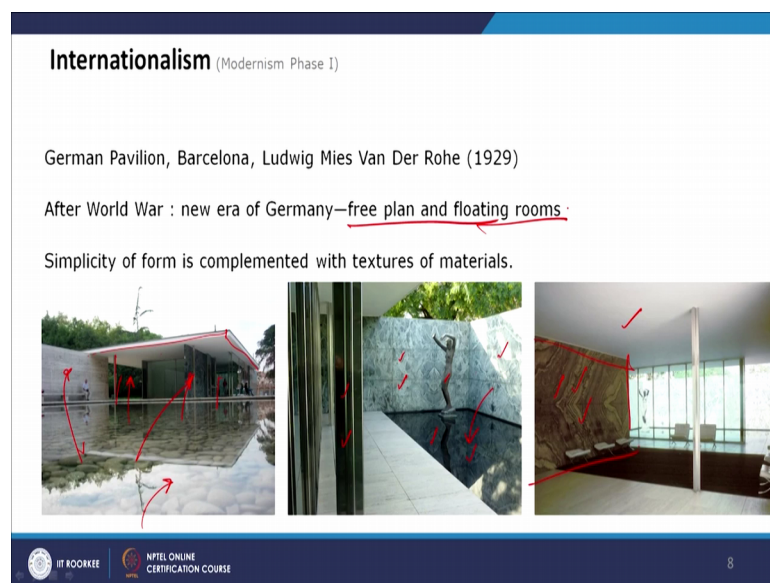
So, this is the solid and now, this cannot be counter balance with the void. So, we can psychologically think there is a void, but it is not there if I do not draw this line. When I draw this line then this void is counter balancing the solid otherwise this void, this void will be this void floats in flows in to the space That is why this delineating this voids boundary was important. If you delete this then this free space does not have any meaning like this. So, if you have to have the boundary of the visual boundary of this void then this void is actually balancing the solid.

Now, if we look at the building which is the void is the solid is also created by juxtaposition of different kind of plates. So, through the plan also you can see that these

different plates they are creating the enclosing the solid. So, there is no way very strong boundary of solid and void within this. So, this is like a gradually this inside space is gradually flowing within the outside. So, these different plates interlocking plates are actually creating the walls. So, there is no strong boundary line of the wall.

And again if we look at this void is again getting repeated over here. So, there is continuity between the solid void and then again the solid, so if you void solid and again the void.

(Refer Slide Time: 19:37)



So, if you look at, so this part is here in the small pole this is a statue and this is the big pole we are seeing the big from the big pole. So, even if you look at, so there is also a texture which gets repeated from the interior to the exterior. So, there is a seem less boundary between the interior and if you if you look at. So, there is it is also the this is porous.

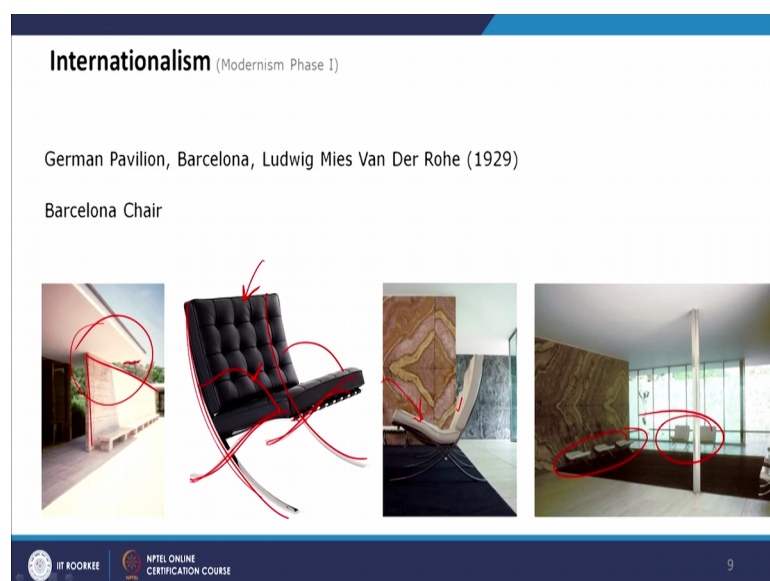
And what we were discussing that when this is a very strong structural member which is the roof which is which earlier in the earlier building looks very robust here it looks very light weight. Because of the huge cantilever and these voids which is passing and then your eye does not, there is no strong wall which creates, blocks your visual and it supported by very thin members which because of the technological advancement and this was possible to design. And so this kind of light weight structure was also an antigravity effect was also design style of internationalist movement.

Now, if we look at the texture and you can see in the void the pool reflecting pool, you can see the bottom surface and there are lot of tables which kind of complements the granite surface of this wall which is there in the other areas as well and. Here also in this reflecting pool you can see this texture is getting repeated. So, these textures are kind of repeated in the from the solid and void as well.

And there is lot of extravagant texture also there within the building as well different kind of granite stone structures are there, but nothing is paint. So, the true texture of the material is exposed and that was shown and so truth the material which was also was there and the pure color which like a you can see only white and grey tones which was predominating; and black tones which were predominating the visual aesthetics. So, which also comes from Bauhaus, but Bauhaus has the pure colors which is red yellow and blue which was not there in the internationalist style it was also not there. So, mostly they talk about the monochrome and the true texture true color of the material and with the complementing the monochrome which is like grey tone of white black and grey.

So, and also we were talking about the free plan which came and the floating roofs and the rooms and the free flowing rooms and the free plan which you can see in the floor plan. So, there is there is a free floor plan which just the structural columns and few elements broken elements as acting as a wall is there which is creating the space.

(Refer Slide Time: 22:43)

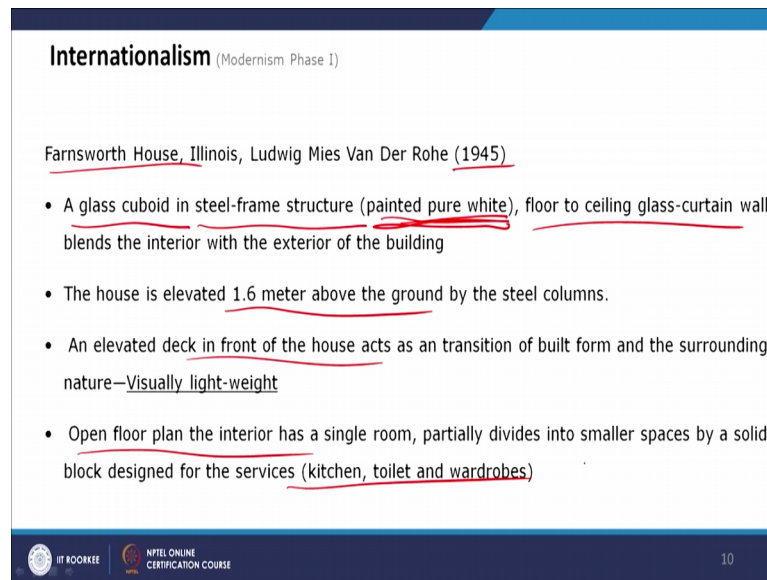


Now, in this Barcelona pavilion there is another famous design by Ludwig Mies Van der Rohe which is the Barcelona chair. So, if you look at look at look at this building. So, here this chairs Barcelona chairs which is designed by Ludwig Mies Van der Rohe this is the chair and in this photo you can also see how this is the interlocking of this different planes are there and then it also looks very light weight because it just resting on this surface.

Now, if we talk about the Barcelona chair, Barcelona chair it is it is a very simple and minimalist curve is used to design this Barcelona chair; so which is part of arc and then a slight tilt in another member which is again repeated over here. And then if you look at this is a pure there is a black in color and then also it comes in white and also sometimes it is the maroon color is there, because of the leathers leather is associated with that maroon color tone as well. So, black it, but mostly it comes in the black color. So, this was black and white which was there in the Barcelona pavilion.

So, Ludwig Mies Van der Rohe have design chair which also talks about the internationalist style and also there is lot of elements which could have been added in the chair like armrest and this long ornamentation which was absolutely deleted and there was no previous connotation of the previous connotation visual connotation of the previous architecture styles and the ornamentations previous styles was there in this chair. So, this is absolutely minimal and the most required elements are only there and then true to the material materials color because there is a steel was just a steel it was not painted steel was not painted and the black color is used. So, this is also complements the internationalist style is also followed in the furniture which is there in the Barcelona pavilion.

(Refer Slide Time: 24:49)



Internationalism (Modernism Phase I)

Farnsworth House, Illinois, Ludwig Mies Van Der Rohe (1945)

- A glass cuboid in steel-frame structure (painted pure white), floor to ceiling glass-curtain wall blends the interior with the exterior of the building
- The house is elevated 1.6 meter above the ground by the steel columns.
- An elevated deck in front of the house acts as a transition of built form and the surrounding nature—Visually light-weight
- Open floor plan the interior has a single room, partially divides into smaller spaces by a solid block designed for the services (kitchen, toilet and wardrobes)

IIT ROORKEE | NPTEL ONLINE CERTIFICATION COURSE | 10

Now, there is another example by Ludwig Mies Van der Rohe which is Farnsworth house this is in 1945. So, this as a quite that Barcelona pavilion was done by still internationalist style as we were discussing that it followed for quite a long time. And many of the other movements which we were calling monolithic style and (Refer Time: 25:07) tensiles and shell was actually an offshoot of internationalist style and mostly a repetition and then an extension of the internationalist style.

So, in this Farnsworth house we will again see this is a glass cuboid and then steel frame structure which was painted pure white, so painting once we have seen this true to the material which was there. So, it is the true color of the stainless steel. But if it is painted then it has to be painted it has to be paint in mostly internationalist style the painting it either in white or black because those were the color which internationalist style and internationalist movements uses. So, it will not be other colors like tertiary or secondary, colors like orange, green and purple this will not be there even they have reduce the usage of red, yellow and blue which is the primary color. So, that was also not used which was there in the Bauhaus.

And then floor to ceiling glass curtain wall which also we have seen in the Barcelona pavilion this was a floor to ceiling one material which is glass and no other not even tilted and no other break in the glass curtain walls from the floor to the ceiling even in this you can see that from floor to ceiling this one particular material which is stone over

here and from here if you look at that. So, this is the glass curtain wall from the floor to the ceiling. Not even the beam is not visible it is the steel structure which is within this floor. So, you will see a clear one plane which acts as a floor which and clear one plane which acts as a wall. So, that is also there in this Farnsworth house and then this house is elevated 1.6 meter above the ground. So, that it has the total volume of the house has a anti gravity look and it looks very light weight.

And then elevated deck which is in front of the house which acts towards the light weight and free flowing structure of this house, and then here also we see the open floor plan of the interior this is the house and the different spaces like living room dining spaces and bedrooms. But all everything is one particular spell there is space there is no wall which is braking the space in between, so this it is a free flowing plan which amalgamate between different spaces and then in it is kind of intertwined. And only the services like toilet and kitchen is like they have a wooden wall around them, and only the kitchen and toilet and wardrobes are there as a solid block and everything is glass.

(Refer Slide Time: 28:06)



So, if we look at this plan. So, let us have a look at the visual first. So, so that we are talking about from this is 1.6 meter elevated. So, when this is elevated over this column which is taking the structural load of this building and that looks the total volume of this building looks like it is very light and it is floating on few of this columns. So, which is

which also looks very thin because earlier the construction technique was used on construction material was break concrete.

So, to take a load of a this cube of in break and concrete it will look very bulky and it will look very heavy, but because of the steel which is a very strong material and which can take the load the strong smaller section of the steel can take a huge amount of load. So, the steel sections can be very slender to take the same amount of load. So, that also adds to the anti gravity and flow light ness of this design.

Even if you look at this roof, roof is it looks like the roof load is transferred in the it is just taking by the glass and it actually you see through this building. So, it look like the roof is also floating, and when he is adding this platform in front of this building even in the building if you look at this solid and void is a kind of a balancing each other.

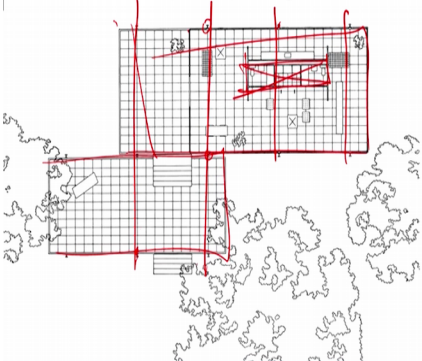
So, this void of solid of this building is kind of balanced by this platform which psychologically you interpret that this plat form is again in compassing void on top of it. So, there is a platform again giving anti gravity look because this is also elevated in a in a little height and then all these steps are also because of this shadows under the steps which is also cantilever. So, they are supported by these structures and this plants are there on top of these two structures they also add to the anti gravity look and ceilings of this building.

And if you look at the building then the building again you can see through the building and this building is just a glass box; and with within the building only to divide this different spaces they use curtain and otherwise this is just a glass box which acts as a living space.

(Refer Slide Time: 30:40)

Internationalism (Modernism Phase I)

Farnsworth House, Illinois, Ludwig Mies Van Der Rohe (1945)



Glass curtain wall: connection with the outdoor environment

Exposed structure provides a framework and expresses the structure in design.

Indoor and outdoor continuity

IIT ROORKEE | NPTEL ONLINE CERTIFICATION COURSE | 11

So, if you look at the plan. So, this is the glass box and these are the columns. So, here in this platform again this platform is balancing this solid cuboid and within this, this part is all the services which is kitchen and toilet is there. And here we see the glass curtain wall which connects the outdoor environment with the indoor and exposed structure which provides the framework is actually expressing the way load is getting floated from top to bottom

And when he is adding a glass and which is a steel so all these natures becomes a curtain wall around this building. So, when somebody is standing within the building they can see that the whole nature is there in the building. So, whenever this building is can be put in any surrounding it can imbibe that surrounding within the building because if right now, this if you look at these two particular image. So, when there is a spring from within the building you will see a spring as a curtain as a as a wall around the building.

And when there is winter you will see the winter and this color palate around the nature will come within the space as well because there is just a glass and everything is visible. So, it can come at it can be placed at any context and that context kind of flows within the interior spaces that is why this is internationalism is talking about there is a pure geometry an pure material and glass wherever you put that the box it will encompass that surrounding. So, it should not change the design vocabulary according to the different

style. So, wherever you put the glass box the glass box will take the impact of the surrounding within because it is everything see is true.

(Refer Slide Time: 32:43)

Internationalism (Modernism Phase I)

S.R. Crown Hall, Illinois Institute of Technology, Ludwig Mies Van Der Rohe



- Industrial simplicity with new materials
- Exposed steel structural frames showing the structural modules
- Glass curtain wall
- Free flowing interior
- Elevated cantilever platform

IIT ROORKEE | NPTEL ONLINE CERTIFICATION COURSE | 13

Now, this another example is the S.R. Crown hall which is in Illinois Institute of Technology few as I say is there. If you look at this building is also has a same kind of visual vocabulary. So, it is also industrial simplicity and new material is there you can see the new material which is steel and glass curtain walls again through and through we will see this glass curtain wall, and this is this is again a cuboid and two of this members are just cutting the cuboid otherwise is just a pure cuboid. Again you are seeing the structural member which is coming as an ascetic members and the glass curtain wall.

And if you look at it also has anti gravity effect when because of the again this platform is added and the same way the stair cases are designed. And if you look at these steel walls steel columns and the steel beams if you will see that this is painted in black, again the black the black white and the grey were the colors of internationalist style it was not painted in any other different color.

So, within the building also it is a free flowing structure it is just a cuboid and the modular modularity of the design is again there because you will see the all every columns are equally spaced in the glass box. If you look at the Farnsworth house also you will see the modularity because this is this is the structural greed which is passing through the building and which are almost equal and this is space left from this side and

also from this side which is all equal. So, it gives the feeling of modularity you can feel this from this buildings elevation from this buildings elevation as well. So, from outside also see you will see a regular interval regular interval these structure members are coming outside which is also there in this in this case as well.

(Refer Slide Time: 34:41)

Internationalism (Modernism Phase I)

Johnson House, New Canaan, Philip Johnson(1949)

- Influenced from Farnsworth House (by Mies Van Der Rohe)
- Philip Johnson's own residence
- A complete glass cuboid, where "nature become the wallpaper" of the house.
- Material black-steel frame structure, glass curtain wall
- A brick cylinder, extended beyond the ceiling, contains the toilet

IIT ROORKEE NPTL ONLINE CERTIFICATION COURSE 14

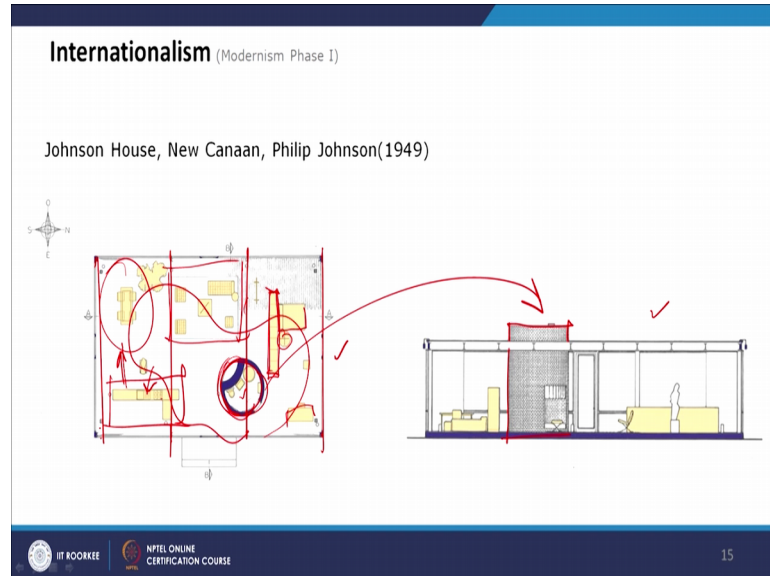
Now, another building which is Johnson house by Philip Johnson which is designed in 1949, which is again got influenced by Mies Van der Rohe's Farnsworth house. If you look at the building you will see how they visually similar.

Then Philip Johnson's designed it for own residence and this is again a glass cuboid which is where nature becomes the wallpaper which was again their as a Farnsworth house, but he is when he was describing his building he will say that nature is becoming the wallpaper. That is why whenever you put that building in the other context that nature what whatever there in the context becomes the wallpaper of this of this building. The material again the material which is new technology was giving. So, this is black steel frame a glass and glass curtain, glass curtain wall or the glass.

So, in the Farnsworth house we have seen as a white steel frame and in Illinois building which we have seen is a black steel frame again this is in the Johnson house we have see we will see a black steel frame. And there is a cylinder which is just containing the toilet and the kitchen at which incase of Farnsworth house there was a cuboid within the Farnsworth house. So, there is a small wooden cuboid within the Farnsworth house

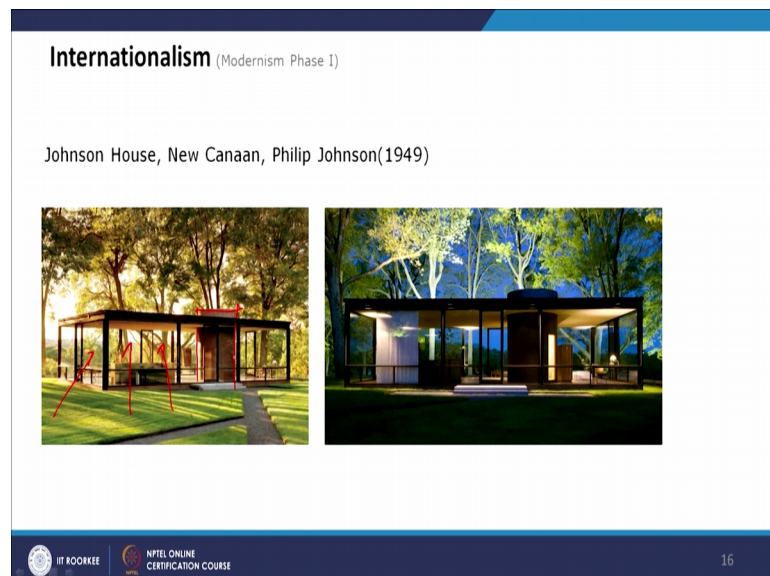
which is taking care of the services and from outside you will see this curtains which just divides the spaces.

(Refer Slide Time: 36:14)



In case of Johnson house this is the Johnsons house plan and elevation you will instead of a cuboid there is a one cuboid and then the other thing is the cylinder which is you are seeing this. So, and this cylinder is penetrating the cuboid and it is kind of excluded up from the cuboid and otherwise this has a very similar vocabulary which is there in the Farnsworth house.

(Refer Slide Time: 36:37)



But instead this was not elevated, but this is sitting on the ground, but this is again giving a very strong ceilings of a glass cuboid and a anti gravity effect because you again not seeing the walls and this roof is kind of becomes very light weight.

And this is a cylinder which is we were talking about the pure geometry. So, always might not be rectilinear, but it is a cylinder which is like this is the toilet and the kitchen because of the privacy it was the break cylinder is there. Otherwise again this is divided by this curtains which you were seeing from inside, and all these spaces like this acts as a dining spaces, this is the toilet sorry the kitchen is also not covered kitchen is open. Kitchen cabinet you can see this kitchen which is open which serves as a dining which is in the vicinity of the dining spaces. And this is this acts as a living space and this is just a storage wall which divides visually divides the bedroom. So, this is the bed and bed side table and the study table which is just there in the free flowing plan which not divided by any wall at all.

Only the, here in the toilet you have a proper wall in there is a kitchen does not have any wall is just a counter and in bed behind the bed rest you have a wardrobe which is acting as a just a visual partition of the bed. And again you see the modular approach of this grills which is seeing from the outside and which are equally spaced between each other and which acts as a free flowing spaces.

Now, there is another other examples of internationalist example which will discuss in the next class with the examples of Le Corbusier's work and his few works we will discuss.

Thank you.