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Lecture - 05 Post-Industrial Revolution: Against the Machine Movement-Art and Craft Movement and Art Nouveau Part I

Hello students, welcome to the online NPTEL course Contemporary Architecture and Design. In the previous class, we have started with the industrial revolution, and what was the effect of industrial revolution in the domain of architecture and design. And earlier we have discussed that because of the industrial revolution, there was a crisis scenario generated in especially in Europe. And there were, because there were the old school of visual style of architecture and design. And then the new invention of technology and because of the new invention of technology, a new style... visual style emerged.

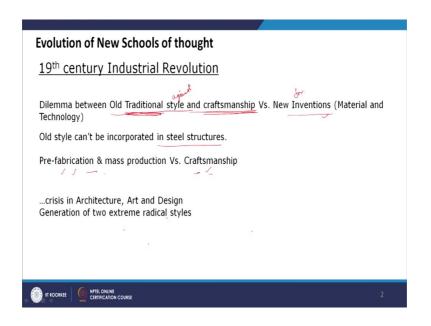
And so there was a two different absolutely opposite school of thought, and different kind of visual style emerged in Europe. And the reaction between these two were, we are discussing. Earlier we have discussed the against... the for the machine movement. So, the machine movement, and machine aesthetics was the new one, because of the invention of new technology, and new machineries, which was the resultant of the industrial revolution. And then there was the old school of architectural thought, which was the architects and designers, who supported that... was for... against the machine movement.

So, earlier we have discussed for the machine movement, and this time we will discuss against the machine movement. And as we have discussed earlier that within against the machine movement, there are two different school of thought, one was art and craft movement, and another is art nouveau.

There are slight difference between art nouveau and art and craft movement, but both of these school of thought and architects and designers within the school of thought, they supported the earlier visual style, and the artisans and craftsmanship of hands on work, and they went against the machine aesthetics. So, they were absolutely the opposite... in the opposite pole of for the machine movement.

In for the machine movement, we have seen the designs of new railway stations, markets, and some other architectural marvels, where they have used the new technology like Eiffel tower, and as well as statue of liberty. But of... in for the... against the machine movement, for example, art nouveau and art and craft, they used mostly hands on... the hand crafted elements. And the... they went back to the previous styles of architecture, for example, Baroque Rococo, and Classical architecture as well as the traditional craftsmanship. Those were the inspiration of visual style of against the machine movement.

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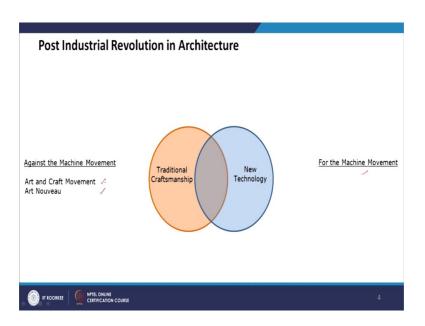
So, let us just brief about the previous things. In 19th century industrial revolution, there was a dilemma in terms of one is old traditional style, and craftsmanship together. Old traditional style also includes the Classical Baroque architecture, and Gothic architecture and other architecture style. Where the craftsman and artisans, were not involved, mostly the architects and designers were involved. And craftsmanship is from the crafts guild, and the traditional artisans. So, these two are one thing, versus the new inventions, or the material. So, this was for the machine, and this was against... the machine.

So, old style cannot be incorporated in steel structure, because of the new invention of the technology. So, there was a new visual style, pre-fabrication and mass production versus craftsmanship. Because of the invention of new material and new technology, there was a huge possibility of pre-fabrication, which was actually replacing the

craftsmanship, because craftsmanship and hands on decoration takes more time, but they has a particular aesthetic value in that.

Pre-fabrication is very quick, and within a very short time, many designs can be many products can be fabricated, so the price comes down. And hand crafted products, paintings, and designs, has takes more time, and the price will be much more. So, there was reaction between these two process of designing, and process and techniques of designing. Then because of these two reaction, there was a crisis in architecture and design generated and two extreme radical style emerged.

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So, one is here in the new technology for the machine, and this is against the machine. In for the machine, we have already discussed. In against the machine, we have art and craft movement, and art nouveau. They are very closely linked, and their visual style also overlaps. And this is the little tricky to find out, which one is art nouveau, and which one is art and craft movement. But, we will discuss what are the salient features of both the cases, and we will discuss how they are varied from each other. But they both supported the traditional craftsmanship, and the old school of architecture and design style.

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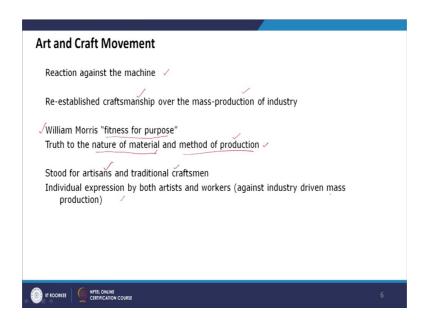


So here some examples, which we have discussed earlier in for the machine movement; now, in against the machine movement, we will first discuss about art and craft movement. And art and craft movement, first emerged in England, and then they spread these architectures and design style spread, in rest of the Europe, and then to America. But, art nouveau emerged in rest of the all... in all countries of Europe together, and then they also went to America.

And all these styles are main- mainly evolved in Europe, because Europe have seen the industrial revolution first, and this emerged from Europe. Renaissance was also in Europe, and then industrial revolution was also in Europe. So, Europe has... Europe was the pioneer of these architecture styles, which was pre modern. And even in the modern first phase, some of the architecture style first evolved in Europe, and then they percolated to the rest of the world.

But later, when we look at the other styles of later phases of modern- modernism for example, internationalism, and then in the next phases, which are like metabolism and brutalism, they were in the rest of the world as well. So, internationalism evolved in the all over the world, and metabolism actually evolved in far eastern countries like Japan. But earlier phases were start starting from Europe.

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So, art and craft movements, what are the features salient features of art and craft movement, it is definitely reaction against the machine, and machine aesthetics. So, what we will look at the design styles, were mostly not... cannot be fabricated through mass production of machine. And re-establishing the craftsmanship over the mass production, so they are supporting the craft skilled, and their hands on work over the mass production.

Then, one of the pioneer of this art and crafts movement, the pioneering design designer, and he was also painter and architect, so he was William Morris, and he told the fitness for purpose. What he means by the term fitness for purpose, when he connotes that he says truth to the nature of material, and method of production, these two are the main important thing what he is saying.

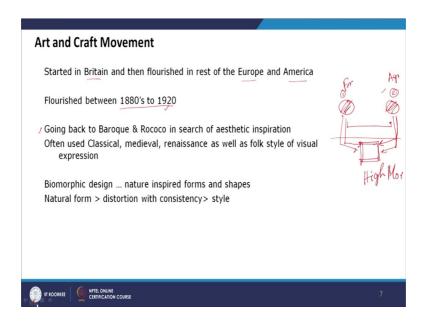
The nature of material has to be thought, and then craftsman will deal according to the nature of the material, and then the... method of production will express their own expression and individuality through the material. So, material and artisans will come... will combine together, and the product will be unique piece of product, which cannot be mass produced through a set factory.

So, it stood for the artisans and the traditional craftsmanship, here there is a little difference between art and craft movement, and art nouveau. Art nouveau actually used the new technology. And then using the new technology, they combined the new

technological tools and techniques through their use in into their use, and then they mixed their own creativity and expression through the new technology.

But, what happens in art and craft movement, they absolutely discarded the new technology and mass production, the new techniques and tools. And then they went for the artisans traditional technique of architecture, and manufacturing and designing. So, individual expression by both artist and the workers, which we which they valued the most, and which is against the industry driven mass production.

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So, it started in Britain as I was telling earlier, and from the Britain, it flourished to the rest of the Europe. And unlike the art nouveau, art nouveau flourished in other Europe, as well as in the Britain, and then they went to America. But in art and craft movement, it is started with Britain, then it went to next rest of the Europe, and then it went percolated to America as well. 1920 is actually the start of modernism. So, this time is in between modernism, and after industrial revolution and before modernism.

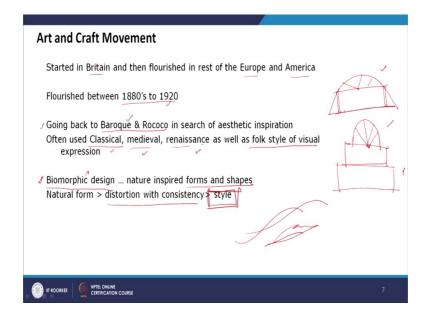
So, here we will see that art and craft movement actually suppressed by the other rest of the movements of modernism. Why this... even the art nouveau also got suppressed by other modernist movements, why this happened, because two extremely different visual style cannot co-exist together. So, there will be a reaction between these two.

What in this situation, what happened was two extreme radical design style was there, one is for the machine, another is against the machine, so these cannot co-exist. So, in the later cases what happened, they took some of the influence from for the machine movement, some of the influence of the against the machine movement, and new school of thought, which was universal was there.

Because for the machine movement was has some pros and cons, it was easy to manufacture, and it was easy to spread the design. And then against the machine movement has some pros and cons, so it has no aesthetic values, it has the individual, it has the potentiality, it gives the potentiality to manifest your own expression into your product. So, they have taken the plus points or some of the things from both the things. And then the final high modern... style of design evolved. So, this was the scenario, so that is why it stopped in 1920s when they started the modern style.

So, and for the experience for the inspiration, design inspiration, they started going back to the Baroque Rococo style, which was just before industrial revolution. And Baroque Rococo style as we... I was discussing, which was high in ornamentation, and there were lot of intricate patterns into Baroque and Rococo style, so this was not minimalist at all. And then the other things was there... often also went to the Classical style, and which also was different from the for the machine movement, why we have discussed earlier.

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Ah for the machine movement has no other added very few other added elements there, and it was more mostly abstract. The form of crystal palace, if you remember, it generated just from the way of construction. Even the Eiffel tower, it is just the construction technique, and that is how it evolved.

Even the railway sheds, all are just through the construction process. So, it was not there in art and craft movement, and then also the medieval and renaissance things. So, what was there, they have some... these for the machine movement, they don't have a figurative depiction, they are all abstract in form.

So, and pre industrial revolution, they were figurative that we were discussing earlier, why this was a figurative. And in modern, very few movements were taking inspiration of figurative. This art and craft movement uses lot of figurative depiction of visualization that we will see later.

And also as definitely, it will take the folk style of visual expression that comes from the traditional craft guilds, which were artisan driven. So, the design style, if we look at, it is more biomorphic definitely, and biomorphic to... it is figurative, and not geometric. And nature biomorphic, the term biomorphic represents, so when the lines and the curves are driven from biological organism, it can be flora, it can be fauna. But the line and patterns can be, it can be a leaf, it can be a human body, or the some other things, but the inspiration is from flora or fauna.

The nature yeah its nature inspired forms, and shapes, and lines,. And from this natural shape this laser distortion with consistency. So, this distortion is a little abstraction from figurative thing, which we will discuss later. And then the evolved new style, so this new style are definitely taking Baroque Rococo, Classical, medieval, renaissance styles as the inspiration board, but they are not that style. So, they are abstract... they have slight difference from that, and then they emerged new style for art and craft movement, which we will discuss, when we will see the paintings in architecture.

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So, in art and craft movement, when it started first is a through 19... it started in 1980s, but it reached its peak in around 1987, and there was a exposition art and craft exhibition society had organized a symposium. And their all artisans craftsman, and architects they met, and then they used the term art and craft first, and from that this art and craft movement had its name.

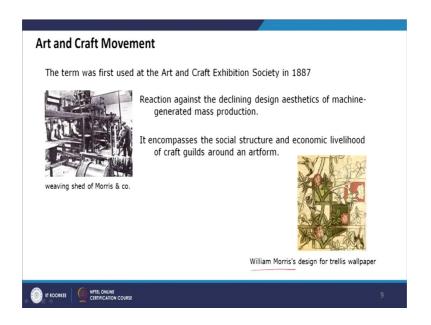
So, this is the reaction, the main agenda of this exhibition was reaction against the declining design aesthetics of machine generated mass production. This they are calling the declining aesthetics of machine generated mass production, because aesthetics is a very subjective term, and earlier we studied in for the machine movement that machine aesthetics was a liberated.

So, either you like the machine aesthetics where machine will be visible, and this grotesque style of machineries, you will enjoy that and that style will be used to decorative of facade, or you like the ornamentation and highly ornate man made thing. So, for them the aesthetic, which machine generated aesthetic was not good, so that was the within their agenda.

And then it encompasses the social structure and economic livelihood of craft guilds around the art form. There it is slightly different from art nouveau. In art nouveau, they used new technology, and they blended the earlier aesthetics together, and then they generated something new, where they have taken help from the new technology.

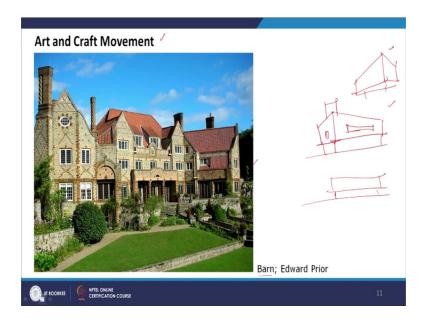
But, here what the art and craft movement is focusing on the social structure, and economic livelihood of the artisans. So, the artisans used to stain the craft guild, and their well being was very much focused in the art and craft movement. You can see the poster, so the artisans meets.. meets architect that kind of a social model was there, and which was also seen from the poster as well.

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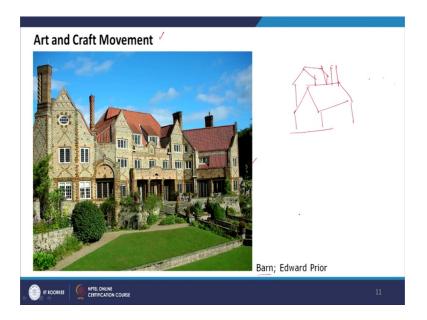
So, here I was telling that William Morris was one of the pioneering architect, pioneering designer and painter of this art and craft movement. So, this is his weaving small factory, which this is not a mass production factory, this is the... his small weaving factory and textile factory, where he used to design his textile fabrics by hand. This is one of his it is not textile, this is wallpaper, which he have designed. And if you look at the pattern, then it is all hand painted. And this will be printed in as a wallpaper, so this was one of his work.

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So, if you look at the architectural style, this was architect building, which was in England, and designed by Edward Prior, this is a barn. And most of this architectural examples, which we get from art and craft movement, looks like a barn. Why, because if we see the next architectural movements in modernism, the buildings will be earlier we were discussing in a late modernism buildings, were like boxes.

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And then Bauhaus buildings, and this other Le Corbusier's building, it will be like all box, and highly geometrical. When the Farnsworth house and Johnson house, it will be

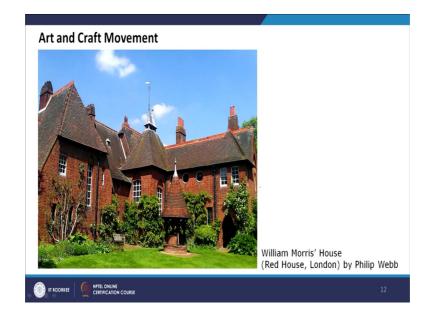
like absolutely box. But, why this buildings in art and craft movement looks like a barn, because earlier, when we look at the mental image of people about the house, it was not a box, it was something like, there will be a pitched roof something like this, and then there will be some chimney, and this was the mental image of earlier style of building.

So, this style of building, which has this pitched roof, and the some ornamentation, some chimneys, this are evolved from the traditional buildings, which they was there before pre industrial revolution. So, they have taken inspiration from what was existing, and what was the mental model of people about a home, it was not destroyed.

And the other architecture modern architecture style, the meaning and the look, and feel, and the visual style of home, residential building was changed that was highly abstract, but this building was not abstract. This building looks like earlier traditional big bungalows, or homes, and they have taken some elements from them.

But, why this is different, if you look carefully, the style is little different. So, here this is the particular style of art and craft movement, some ornamentations will be there. And some other different kind of ornamentation, if you look carefully, this was new, and this was a little abstract form, which you will see repeating. And this pitched roof, and other elements, and then the stone works on the facade was there. And this cannot be a machine made just plaster, and people have artisans really have to do all these works on the facade, and where they are incorporating artisan skills into the building façade.

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We will see another this is William Morris's own house, which is designed by Philip Webb. He is an architect and furniture designer, who designed William Morris's house. And we will also see some interior of William Morris... William Morris collaborated with Philip Webb to design some interior.

So, here also we look at the same pitched roof, which came from the traditional built form. And the chimneys, which these chimneys are actually not just functional thing, they add to the visual. And they break the roof line, and then they emerged from the roof line, and that creates a visual break, and breaks monotony. And all these elements are added, and these elements were there in the traditional architectural buildings, which were there in the medieval, Classical, and other style, which was there existing.

So, they incorporated that and they retained that. And even if you look at the facade treatment, some elements were added, some other treatments were there, and it doesn't look like a very modern abstract building at all. And this kind of a conical roof is also a style of art and craft movement which, was also followed later.

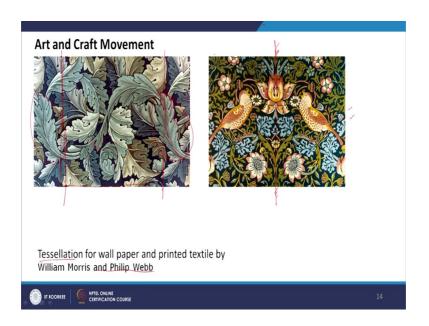
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So, we will also see some of the buildings, which was designed in America, in the same style. So, you can have a look at the same kind of conical shaped roof, and the pitched roof, and ejecting out visual break of this chimneys, and some other breaks in the pitched roof. So, this is the house in the Los Angeles, America.

Here also you can see the conical, roof forms, and the pitched roof forms, and some stone work on the facade. You can see the similar pattern, even the chimneys were there. So, this was the style of art and craft movement in architecture. So, this is also in Chicago America.

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Now, if you look at the other domains of creative movements, for example, textile design painting, and others. There also will see some inspiration was borrowed from Baroque - Rococo and other traditional style. So, this is the wallpaper, textile printed by William Morris, not Philip Webb. So, in this wallpaper, you will see the ornate movement, and curvilinear line. So, the biomorphic lines, what we were discussing earlier, you can see it clearly that this lines emerged from the flora, and here this lines emerged from the fauna.

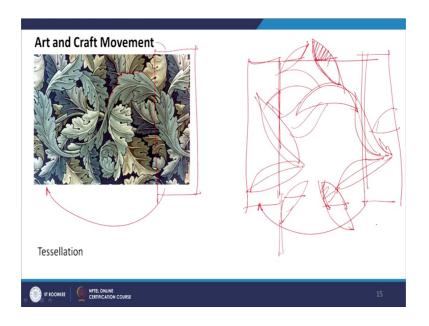
This is the bird, and other elements like flowers and leaves are there. And if you look carefully, this is a figurative depiction, but there is some kind of abstraction there. So, if we look at a renaissance painting of a leaf, renaissance painting of a leaf will not look like this, because this is not an depiction of a pure form of a leaf. So, if the leaf if you look at a leaf, leaf will definitely not this kind of black border and these lines. So, this is slightly abstracted version of leaf, and then artist created his own expression through his own imagination. So, so there is a blend of abstraction with figurative style.

Here also the bird does not has a very flat tone, there is no shadow over them. And even the flower does not have a shadow, and there is black line going around it. So, this is the difference between this earlier style of a absolutely figurative depiction to abstraction. So, there is a abstraction, but this is the stylized lines and patterns has created from a biomorphic style.

So, which we were discussing here that biomorphic style from biomorphic inspiration distortion with consistency and that creates the style. So, this is the style created for art and craft movement from with the previous influence of Baroque Rococo, and other architectural, other architecture and design style.

Now, we use the term tessellation, what the does the tessellation mean. So, if you look carefully, this is the same design has been repeated, and there is a mirror image over there. So, there is a repetition. And then, here if you look at the leaf, it is here. So, and the same, if you divide this part, this is same as here. So, this can be used as a wallpaper, or a textile print. So, this is hand designed, but it can be printed in a factory, so that it will be a textile design by hand, but it can be printed on textile. So, they wanted to compete with the mass production of other for the machine movement. So, they had to go for process of repetition, but they imbibed the style of hand painting.

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So, in tessellation, what is the process of doing it, when you start designing, you have to design the whole part, and then you add... this part... to this thing. So, and you start matching this, so for example, you have drawn this leaf over here and simplifying it. And

then you have also drawn this leaf over here now you have to match and this part has to be repeated.

So, what you have to do is you copy this part of the leaf what you have drawn here... similarly here and then suppose this leaf is this one and you start so this part you have you have to cut and paste here and then you start joining these design. So, here you have to add other leaves, and then start joining. And then the same thing the way you have joined these extra added part has to be drafted over here then it will match. same thing has to be done on top of it.

So, for example, there is another leaf. So, this part has to be added exactly here and then you have to complete it. So, you complete it and then the other part similarly you have to add. The same part has to be here. And then you continue then the design will be continued and it will be a tessellation, whole tessellation and you can print this block by block.

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So, here are some other examples of tessellation. So, this is the mirror line you can see. And then some yeah this is getting repeated here. This is the line, the same design will get repeated. So, this these two are the printed textile again by William Morris, there is some similar thing is there and this is also a woven wool. And in woven wool also this tessellation is there. So, this kind of design can be created in different fabric wallpaper so

that artist gives the design and then the artisans start weaving it and start printing it in the similar design or changes the color in the next design and then recreate different things.

So, this is not exactly, this is not hand... mass manufactured, but similar patterns are repeated there, so that the artisans can collaborate with designers and create some design for consumer product consumption. So, this is the wooden block for printing this. So, this is the printed textile, this is not a woven textile.

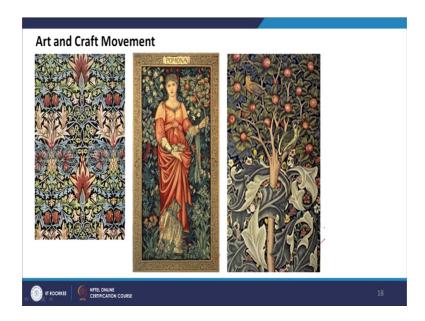
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So, this is wooden print block. So, you feel the colour in each and every groove and this... parts will just have the colour. So, where does the grove the colour will not come, and when the this ridge the colour will come. So, this might be the border black border of the of some design. So, this is again by William Morris Company, William Morris had this William Morris company there. So, it is from his design. So, here they there is a possibility of artisans own imagination. Why, because the wooden block is there now you can change the colour according to your own expression.

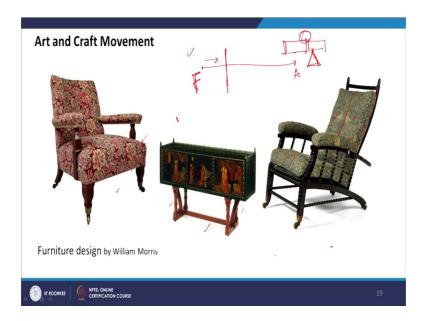
And each and every block might be little different each and every paint might be little different based on the selection of colour and they are some other printing thing will be there which will make each and every print different from others. There is a possibility to do that.

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Now, there is other paintings by William Morris. These are the paintings this is not a printed thing.

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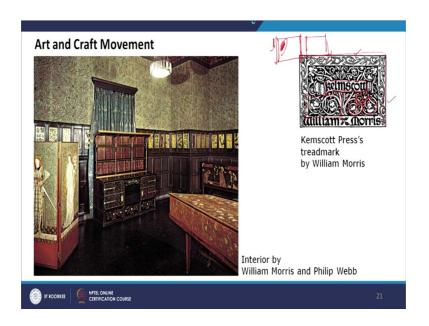


And also William Morris have designed furnitures. So, this is William Morris's furniture which comes within the art and craft movement. And if you see the textile this is the William Morris textile which has the same tessellation and the biomorphic... biomorphic figurative plus a little abstract style. So, if you look at the figurative style of pre industrial revolution and abstract art and craft will come somewhere here which is not

exactly figurative, but little towards the abstraction, but not as abstract as Bauhaus, and high modern internationalist style where they have Bauhaus have used triangle and pure geometric form. So, it is little away from figurative, but still it is figurative.

And you can see the cabinets where it is hand painted. So, this can be produced in wood shops and, but this part will be hand painted by artisans. Again the similar kind of chairs where the tessellation is used; and use of flora and fauna and the biomorphic design was there.

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Now, this is interior designed by William Morris and Philip Webb together. So, William Morris have designed this wallpapers... this curtains as the same William Morris style of print printing and weaving and printed textile. And this is a partition wall painted by William Morris. And then Philip Webb have designed the furniture which goes with the William Morris style of art and craft movement Philip Webb is also an art and craft movement furniture designer. We have seen the William Morris house the barn where William Morris used to stay which is designed by Philip Webb as well.

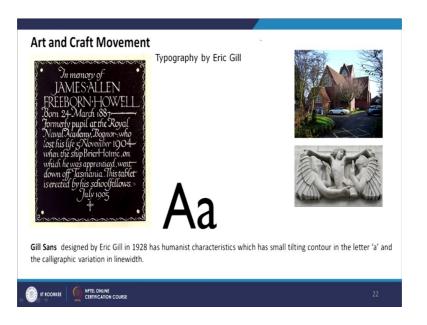
Now, William Morris also have designed some logos and trademarks. This is the trademark for a press and you can see the similar patterns were there, but in the trademark here there is the constrain that you cannot use too many colours. So, if you use too many colours, the trademark has to be printed with several blocks... wooden blocks or lithographic block with each and every colour. For one colour you should have one

wooden block where there will be grooves and ridges. And for the other colour again you should have another block to print that colour.

So, many colours will give you has to be produced with many blocks. So, he has to go for one single colour and one so that there will be a one trademark grove and they can stamp on it so that will be the trademark they cannot stamp two three colours together. So, if you look at the; with that constrain as well all these biomorphic forms were- also retained and this curvilinear patterns and things are there. Even in the this typography you can see the similar pattern. And art and craft movement again one of the feature was they used... floral pattern a lot.

So, the boundaries will be like a creeper a floral creeper pattern a lot. So, if you look at the previous designs as well, so there are lot of creepers, creepers was the very important elements of design which was there throughout the design style.

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So, an another art and craft movements artist was a Eric Gill. You must have heard about Gill Sans. Gill Sans is designed by Eric Gill in 1928, but Gill Sans is not exactly an art and craft movement, this is the Gill Sans; because he was famous because he designed this Gill Sans, but Gill Sans also has this little curves, but it is the sans serif fonts. A sans serif font does not have this serif ends which a serif font has, but still this added elements were there. So, this is towards the modern because this is a 1928 after the finishing of art

and craft movement. But still if you look at these are some of the example where art and craft movements were there.

Here if you look at the typography, the floral biomorphic patterns were there. Even with the very minimal style this creeper... creepery border was there. If you look at these elements, so this depicts a metaphorically some creepery elements around the border. And even if you look at the ends, this is not serif end... yeah these are the some serif ends are also there. So, they ends like a creeper which is also something like art and craft movements. So, this is the font which goes with the art and craft movement and designed in the similar era which is designed by Eric Gill.

And some of the sculptures of Eric Gill and his only completed building which again you will look at the similar style was followed with pitched roof and other things added on top of it. So, this also comes under art and craft movement.

So, in the next class, we will discuss about the art nouveau which was another parallel movement and which also went hand in hand with art and craft movement because that also opposed the machine aesthetics. And we will see the differences and see the similarities of art and craft movement and art nouveau. And also we will look at how art nouveau and art and craft movement influence the later movements of modern and as well as the post modern architecture.