Course on Landscape Architecture and Site Planning – Basic Fundamentals Professor Uttam Banerjee Department of Architecture and Degional Planning

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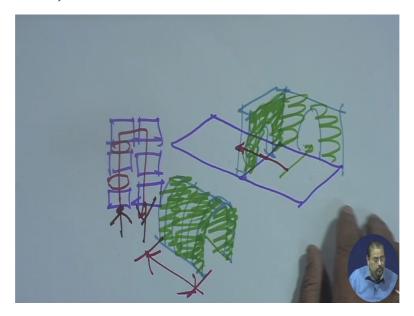
Behavioral Principle (Contd.)

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Good morning, so how's it going? In the last class do you remember I had given a small assignment to you to work out yourself as (())(0:33) with order, sequence, transition and circulation. I hope you have covered that and you have understood this. I will just highlight a few more things which will add value to it then I will switch to the next level of discussions. So basically ordering is positioning of all the spaces. Sequences is the way it is accessible made accessible through circulation and transition is the kind of experience people will have while going from one zone to the next zone to the next zone.

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Now, if the sequence is changed, then the transition changes. Order does not change, so what happens is sequence, transition aided with circulation that makes a big difference in it. I will just again quickly make another short sketch for this. One space next space next space, you are connecting this with...okay one more set one more set here, you are connecting this with a circulation part which is going from here to hear and then this, this circulation that we have decided. Which of the transition zones, transition zones are in between spaces? Now actually this is not a space, this is a plane that plane which you may give a little bit of depth, an example in 3D.

If this is one space and this is another space, you are making a transition from here to here, then this particular plane becomes your transition plane this plane through which you are allowing somebody to walk from here to here. So this is the transition plane, go from here step into this particular area, this is the transition plane, if you want you also can do one thing we can give a depth to this transition plane, that means transition is not purely a plane without no depth.

Transition is an experience when shifting from one particular zone to the next particular zone, this zone to is this zone through this. All these I have drawn here in terms of you know giving an idea as if it is architecture, no just fill it up with any kind of agitation, make this a series of tree here, this becomes a transition from here to a green space to this. If you want instead of giving this kind of shape, if you give a shape like this.

This is nothing but arbours a trail is I have explained this earlier in terms of elements and then you fill it up with vegetation, this is a transition from here to this from this to this, that transition through a vegetative element which is supported with trails that is how it is. So it can have depth, now add more depth to it make it like this, so your frame is running like this and add vegetation to it.

I am trying to draw very fast so that I can do justice with my time, brings your passing through arcade which is made of a series of arbours, the depth that is given here is so much. So the point is the transitions that it is basically referring to this zone from one space to the next space in between that particular zone, it may be a single planer of it may be a space like this with a depth, depending upon what height, what width how many people are passing through?

What kind of treatment that you have given over here. All these you know will make it difference, so this is what is the kind of you know experience which I am saying that you should have, when you are passing through a particular space. Now here one more thing, first I have ordered this then I have sequestered from here to here, in case you make a person move, not from this zone but through this and you have also given similar kind of treatment while passing from here to here, experience will be almost similar, but the moment somebody steps from this space through this transition zone to the other, immediately the other elements which are content within the next space will make a big difference.

This is what is very important when you are making people move through a circulation path. Now if I summarise this particular discussion which I concluded in the last lecture is this, you create space with subspaces, these are all subspaces of a space subspaces you create space and with subspaces, subspaces which are ordered placed, static.

Each of the space each of the subspaces rather is treated in different kind of forms and different kind of character different kinds of treatment, material, maybe some themes or whatever and then you decide how a person is supposed to move through this particular space in which sequence, so you work off the sequence, the moment you work off the sequence you have worked out your circulation and this is what is here, the circulation.

Now once you have made the circulation path which is going to dictate the sequence of your movement or the users moment and then you shifting from one space to another means once subspace to another subspace then in between the spaces that you have depending upon what

kind of treatment, what kind of depth, what kind of height, dimension depth, the transition experience will come.

Now what happens is, what is important here is, in this kind of situation basically what will happen? When you are going to assess that what is your final effect of this in the mind of the viewer, basically you have assessed one thing that is start from here with let us say 0 experience, start from here with 0 experience of what is within and then you make them move from one to another.

Each of the experience is getting cumulative. Now another phenomena that comes in the mental process, each of the space has different characteristics, the viewer does not know what he is going to see or viewers likely to see then he experiences the 1st subspace, he gets overwhelmed or disgusted, does not like it he moves to the next one as per your part that you have dictated, he goes to the next one, he likes it very much reserves it and stores in the mind, goes to 3rd one he likes it more than the last one then even what will happen is, if the earlier experiments are negatives or poor or not very encouraging the person who is viewing it, he will gradually keep on discarding that from his mind from his mental storage and then he will always try to see what is good? What is good? What is good?

Now if suppose each of the subspace is well designed, then the entirety is you know its reserve in the mind of the viewer and then where he comes out for at this particular point, at this particular point is going to now the different vision, not your plans area but he carries forward with him the experience that you had here. Now if somebody interviews him, tries to know what was his experience? He will be able to tell you that what is the experience? Because he has sensed it through the mental process, he has perceived it what is what? And he has also analysed through intellectual process that what is good? What is bad? What is extra? What is not required? Such, so he will have a cumulative experience at this particular end.

So if I now try to technically say 1st entry point 0 experience of this space then while coming out, it is cumulative experience, if suppose by chance each of the subspaces of poorly designed the total reaction of this particular person at the end is negative, did not like the landscape. If suppose out of the 6, he liked 5 and did not like one, he may simply forgo and ultimately you know give a benefit of other 5 being better, so comes out with a nice experience and if the last one is the best and the 1st one is the worst compared to all these 6 mark then the last... 1st one rejected and the last one remains at the back of the mind and in

fact I will tell you if each of the spaces experience individually, then what happens is one would always try to gather the last reactions.

So it is because of this, if suppose when you design you remember I have used a term called Climax, that Climax which are (())(10:26). Now you keep on creating good rather better, better, better and better environment and at the end reaches climax and then one goes out. At the climax point if suppose one goes out then he retains the full climax stock with him. If suppose there would have been a situation that you allow him to go further, further and there are poorer, poorer design then your climatic you know the climax effects get discounted by poorer design.

So this is this design of landscape with different spaces is a very nice ballgame which we have to play when you are designing. You know they have to be always follow the same route like personal analogy as if you are experiencing it, so when you put all these elements what would be the reaction in the mind of the viewer all these are you can imagine what you have created, so use personal analogy that is always better. You can also go for fantasy analogy, symbolic analogy and all these analogies but the thing is personal analogy is since it is most commonly used because all these areas are mostly natural, okay.

Then I will come to the other aspects of principles that is form and character. So for what we have discussed, we have discussed about the abstract principles, principal relate to the expressions how people react or you know what how do they experience it and then the arrangements of space or objects. Now is the (())(12:10) character of the object or the space so it is arrangement the 2nd wall was arrangement, how you place them and now it is individually each space each object. I am just drawing in reference with the same sketch which I have shown you earlier.

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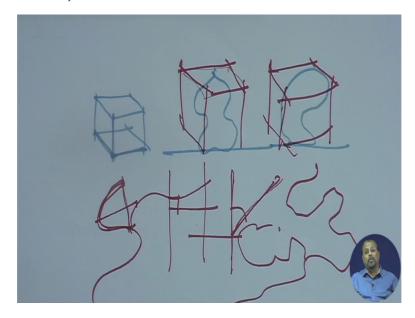


This refers to arrangement but quality of this characteristic of this characteristic of this space, this space they are related to the aspect which I am going to discuss now. With respect to form and character of the object or space there are these are the items, these are the principal which are very applicable. That me just bring all the items in front. Dimensional, line, size, mass, volume, proportion and scale. There are many more you now basically any object or space must have a dimension because that is the reality in the landscape project it is the, so that must have a dimension. Now that dimension is very simple, simple way of putting it length, breadth, height.

If it is a space and we are looking at the basement there is a length and the breadth, if it is a three-dimensional object then we see the length, breadth and also the height. If you see a vertical element, then we see the breath and the height. Now here another thing can come that is the depth all depends on from which point you referring, if you are referring from this point to an A then then it is the depth.

So length, breadth and the height, here the breadth is replaced by depth you can do it, okay so object has to have length, breadth and heights. Object may be of different configuration but that should be up you know basically a very broad dimensional of length, breadth, height. I will just try to clarify this particular point a little more.

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If you have an object like this simple object drawn, okay understood length, depth, height, length in terms of plan length, breadth and height, okay. If suppose you have an object, which is of this kind, placed on the landscape site or suppose you have an object which is placed on the landscape site like this, how do you say length, breadth and height. In this kind of situation basically the point is we do not have to really go for geometric measurements, no. You take the overall form of this, I will use another pen for clarity, you take the broad length breadth and height parameters which contains that particular object within, take this into consideration.

So whenever you trying to look at that particular object it is in terms of that containment, that containing cuboid, okay. Line, line is octagonal, curved or aerogram. Octagonal is when it is at 90 degree to each other, okay, this is octagonal. All those (())(15:35) pattern that you have seen in your historic examples on Mughals or French gardens or Italian gardens, they are all mostly octagonal.

Now, then they are also angular, like this I did not put the angular here because there could be then if I start seeing angular then there will also be (())(15:56) and many other you know, but however angular which is like say with respect to this there is at an angle. The another one is curvilinear that means it is of this nature okay and another is irregular, this is curvedly mean you can always make it you know find out the arc length, arc length the cord and the radius whatever but irregular is absolutely anything, any kind of thing is irregular.

So the point is which one is good or bad, where there should not be any contest about it, as we have seen mostly in our landscape projects, we have objects or plans or say layouts which are very favoured in terms of curvilinear or irregular and of course even people liked regular one Octagonal, so this line matters. Axis when it is a straight line going from one particular point to another particular point like this it is a (())(16:59) which is Octagonal. If suppose you turn it in this anger this is angular but axis, this is one axis from there, there is another axis from here there will be another axis.

But the moment you make it curvilinear to lose its strength of axis, so axis will have a start point and end point between a line and then intermediate of them will be many more axes, transfers and then there will be for each of those particular segments start point and the endpoint. But as soon as it becomes curvilinear to loses its strength of that actuality of or rather linearity, oaky. This is another this is another most important principal.

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Then comes the size, the intrinsic size of the object see size is very much related with respect to the dimension of course, small dimension small size big dimension the big size this is quite easily understood. The point is when you are looking at that particular object as a competent in your landscape, then how you view it, that what is that particular size you are talking about, we say is a big size object we say it is a small size object, it is a big garden it is small garden, it is a big tree this is a small tree, this is tall tree this is dwarf tree.

All these are basically the you know, the expression by which you try to give a relative idea of this. The moment you say that I have been to landscape site and I have seen a series of big

trees, nobody is going to ask you how many how many how many metre height, nobody but people will immediately infer in the mind that it is big and at that point in time if suppose somebody is trying to measure your reaction to it then is trying to find out okay this bigness with respect to his own perception of bigness, here the perception matters.

If suppose you say I saw sculpture which is very large, basically what you have done, you have added one more superlatives to the large, you did not say is so large sculpture, you will say that I have seen a very large sculpture, you must have seen in many places nowadays we are seeing that both the statue are very large or you know the poet group our statue is very large in Kanyakumari if I remember.

In Gaya I have been there I have seen a big statue of very large statue of Buddha the point is when I am saying very big I am trying to give a relative idea of this, I am not saying the dimension, if your smear will not be able to tell you the dimension, but this relativeness matters. This is used as a principal, it is like if suppose 2 of you are sitting here to plan and you are deciding what should be the size of it, you will say let us make it large, then immediately others will ask how large, but this question is not to be asked at this moment, is large with respect to other, small with respect to other. Now there will be multiple such element so how do you really give a comparative idea about this there is what is the size, but end of all it has to be with the dimension, okay.

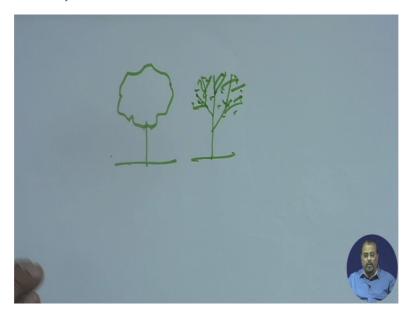
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The mass the mass is basically heavy or light. Any object that you use you know the heaviness and the lightness, in terms of mass of course it will be based on what quantity of

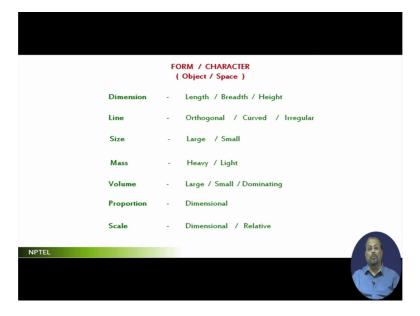
material it is content within, that will give you an impression in your in your mind that what is that heaviness or lightness you know light mass or heavy mass. That will just give one idea with respect to.

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Let us say if I draw a tree, this is one and then I also draw another tree, both are of equal heights this particular region is also almost uniform in terms of its plainer area projected area, but the moment you look at it you will say it is a heavy mass and this is a light mass, so basically it is material contained within, that gives you a feeling of heavy or light. There are when comes to size, mass and all that many things like say how slender it is how tall it is how spread it is, all these factors do come in.

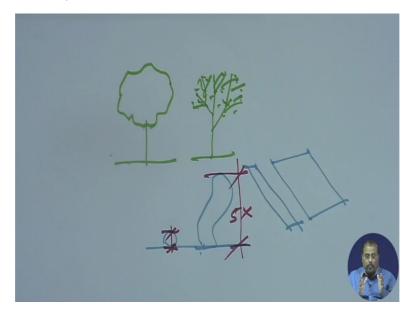
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These issues I will discuss, when I will talk about the planned characteristics, not today in the principals I do not do spend my time on that. Volume, volume is large, small, dominating volume, people say it is dominating volume, what is a dominating volume? Basically when you are somebody looking at it, the whole volume is you know with its heavy mass may be, you know almost dominates the viewer in terms of his expression, so it is a dominating volume, when you say large volume, small volume, but if you really go in to and you find that that small volume is restricted with small size restricted with then maybe a light mass or heavy mass.

The volume maybe the overall volume but we think that the mass is less. It is just like you know, if you take sort off (())(22:05) issues bundled volume is same but the masses less. Take a solid wall of the same size the volume is same the mass is less mass is more, so the point is how do you react to it how do you interpret these are also principals that we do use, so what happens is, since the landscape subject has lot of subjective interpretation, this items which you are referring here in this kind of discussions basically it is all up to the viewer that how one perceives or tries to express. Then comes proportion, proportion is dimension proportion is with respect to say basically length is to breath, length is to height, breadth is to height so that is dimensional proportion, that say an example let me draw.

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Let us look at this, in terms of plan let me tell you. Proportionately, one who would express that here the breadth is very less compared to the depth of it, that is the proportion one who say this is dimensional. This breadth is say half times off the depth, this is proportional so

what happens to it, it becomes a ratio that with respect to, so here within the object or space one aspect or one element of it is compared with respect to the other.

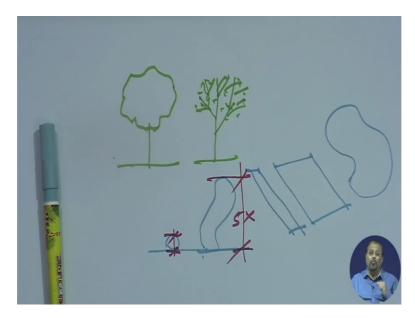
If I say this is also dimension, suppose there is one object placed here in my landscape and there is another object placed here, then dimensionally both are different, mass wise both are different and volume wise they are different, proportionately also they are different, that means this is in small proportion compared to the one, so whenever it comes to proportionate you will always find that people will fall back on relativeness of one to another.

Okay single is a scale, so scale is again dimensional, but also relative scale is dimensional is that one particular object if this let us say here itself this particular sketch itself that we use it. In terms of scale, if I say the height is say x meter the height of this is say 5 x meter so the dimensional I can always say this is what it is, but there is also large you say its large with respect this and a larger scale than this, without even going into the dimensional you can always say by virtue of your seeing it that this is larger than this.

So scale when you are experiencing, you are saying either dimensionally or with respect to relative. Interestingly what happens is whenever we are talking about this principals basically all these come under say one parameters which are more of expressions and less of dimensions, but in reality it is with the dimension, so when you are using any such principles in your landscape project and then you should always feel or try to understand that what the person is going to you know perceive, relatively, dimensionally, proportionally you know that is what you have to first perceive, it will help you in that way, okay.

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Other aspects form or profile, shape, pattern, density, prominence and dominance, these aspects are again very subjective to certain extend, but however form and profile we say for an object or space whether it is a regular space or irregular space or is it symmetric space all these are with respect to the profile means this profile. Okay, is it regular, this is regular this is irregular, so when you say with respect to profile, it may be the profile in terms of plane planer base plane or profile with respect to the vertical plane or we can say which was the over plane or we can also say profile with respect to the three-dimensional geometry.

So whenever you expressing it we express in this terms, the shape is a regular like say my earlier sketch regular, irregular. In terms of shape the lines and other things will not come in it is an overall geometry that is going to play a role, okay. It is a pattern orthogonal, free flowing, floral, if you fall back on these examples you will find there are plenty of such like say this is pattern.

This particular picture which is showing there is a patterns which is floral type. Look at this one this is orthogonal. This is orthogonal with a bit of free-flowing. See the interesting of interestingness of this particular object, here if you follow, these are this is orthogonal because there are all different places which are regular and the thing is the moment they have they have put a line over here and this line is nothing but the same vegetation of a different kind with a different color then what happens is this has created another line.

So it just brought in a little bit of free-flow, here in this particular pattern it is floral but still in some places you will find there is little bit of free flow the thing is how you express it, so in terms of spaces in terms of objects these are working. The density, the density is whenever

you thinking about different elements (())(27:36) the density of that particular space or objects, now weather it is homogeneous, you have created a landscape for example this is here in this case what happens you have created a landscape which is homogeneous in 2 elements, one is the greens another is the (())(27:54).

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Look at this particular picture, let us have a close look at it you will find it is homogeneous in shape. This is actual pattern and then in between each of this particular squares are very regularly made and very symmetrically placed one after repeatedly place one after another it becomes homogeneous, but if suppose, they would have made any kind of patterns here the next any kind of patterns here any kind of patterns here it would have become heterogeneous. So whenever you are thinking about the density of different items in terms of homogeneity or heterogeneity, just try to understand that with respect to different elements.

I will tell you a very challenging task, in the landscape design whenever you are handling large number of items and they are of different your know materials, different intrinsic quality, these items or these principals becomes very important to be noted. Next is prominence, prominence is like say visual appearance of 1 in comparison with other. It is something like when we say that this particular person was very prominent over there because basically you are saying that person was prominent.

It was it was drawing attention compared to the others, so whenever in the landscape you will find that there are, you will give some characteristics of one particular kind of object, one or maybe more than one objects and that will be attracting the viewer towards that with a little bit of prominence and the prominence is still by you by its intrinsic material, design, shape, form, scale and such, okay.

So something which is visually visual appearance of something in comparison to the rest and which catches attention and the dominance is that when one particular object strength dominates over the rest and the rest of the items almost falls flat in terms of the reactions and people perceive everything mind it.

They are see in terms of process of mental process everything they are seeing, everything there perceiving and then through intellectual the one which is more dominant by its own characteristics, intrinsic characteristics whether the shape, size, scale, pattern, color, texture whatever you know it dominates. So it is basically that idea that how it gives you a dominating effect over the others (())(30:17).

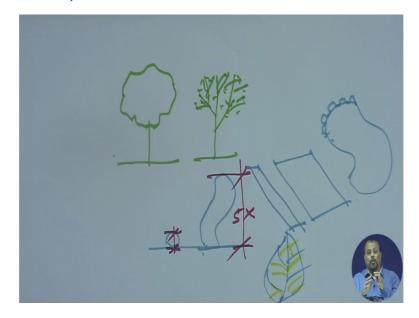
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I will go quickly through this, it is edge, color, texture and grain whether it is regular edged or irregular edged or Smooth... so basically it is referring to this this part of it, look at the paper, this is the edge this is the edge that they are looking into, okay whether it is say this is regular, this is irregular and this is smooth and this is rough so point is how you give what kind of edges that is the kind of design that you are going to view.

The color, whether the color is uniform, whether color is variegated that means uniform color is a same color repeated, same color repeated may be with a bundle of it and then variegated is when you having the change, okay that means you are seeing the one color and within that you have the variegations one color and then there is a patches.

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So if suppose you have say a color say a particular leaf let us say, I am just giving an example with respect to the leaf I will clarify this again when I will give other ideas you will find that this is green leaf within which there are some kind of patches these are all variegations, this I am saying with respect to the leave you can have it in terms of space, you can have it in terms of object, the object may have uniform color, object may have other variegations as well.

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Texture is the you know it is it is not really the roughness of, it is the pattern of the surface, okay on the surface and the grain is basically the roughness of it the rough grain, smooth grain that means if you cut a section through a particular surface over here it is basically how

much if I enlarge the surface how much it is going up and down, how much recess how much relief you know that will refer to the grain and texture is basically the pattern over it.

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Some more topography the profiles and the light, this is very important the light is essentially whether it is bright or dull. This light we are not talking about the quantity of light that it is been given or even that how much interesting this particular picture is in the evening, no we are not talking about this, it is a brightness or the lightness dullness of that particular one. Again the luminance that means how much bright it is, so whenever we are talking about the light and the luminance together, here sometime we go we deviate a bit from the standard landscape object because we are adding some more elements which are very technical, non-natural maybe.

But interestingly that think about a landscape which you are seeing in a sunny day where the sun is the light source at that party will appoint you find it very bright and in the cloudy day you say it is dull and when you look at those pictures that I that I have just now shown here it is basically the luminance that it is reflecting towards you, it is not the object that is being lighted is the luminance that is reflecting in your eye, that will be basically with respect to that particular light or the luminance.

Now another very important principal that we do use is in the landscape is the fragrance, fragrance is basically intrinsic characteristics of the object whether it is the leaf, whether it is a tree bark color sorry bark smell, bark fragrance, leaf fragrance, flowers fragrance, fruit fragrance basically this principle we do use very much when you are trying to give a form or

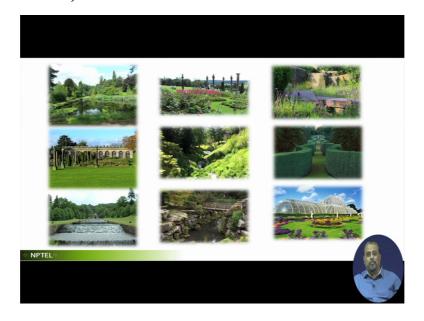
character. You will find that when you design a Rose garden you simply do not design the Rose Garden because of the look of the Rose, you also design the Rose Garden with depending on its fragrance that it is giving, so that is also another principle we do use a very apically in our landscape.

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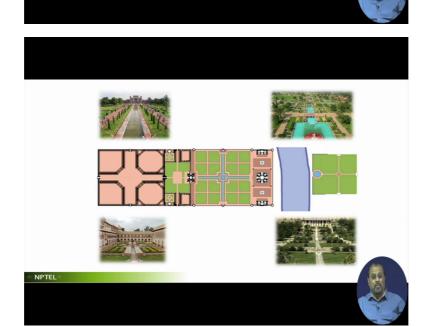
I will just quickly run through few slides over here, I am not going to explain much on this but I will keep the slides for you sense point you so that whenever you are downloading this particular presentation you have those which are palette in your stock and when you have that in stock I will suggest that all the principle that we have talked about so far, try to identify those principles within, okay. I am just keeping it for a few seconds one by one.

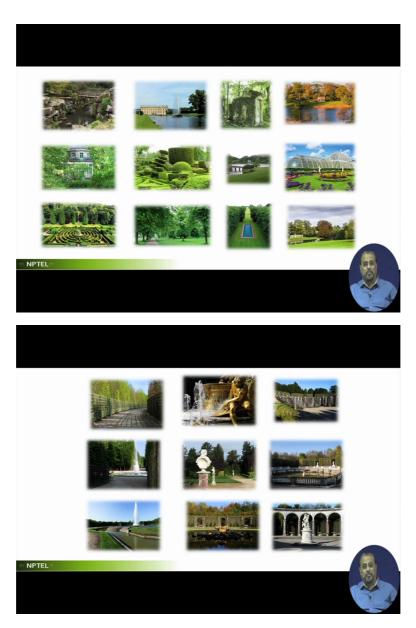
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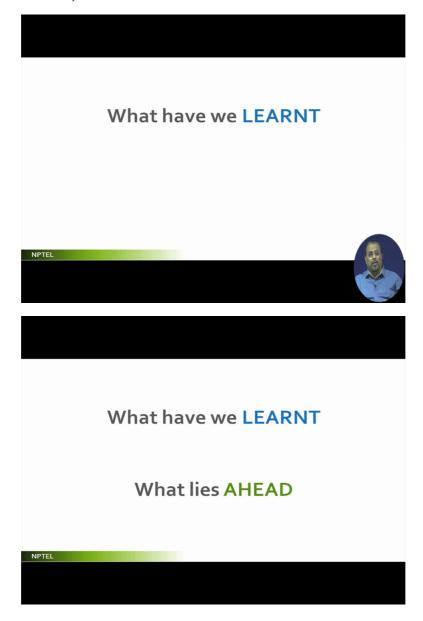




I will keep it for specially 10 seconds not more than that for each 10 seconds is the time it is good enough for a person to perceive a particular picture and then make senses and in case you have missed it when you are viewing it I will suggest you rerun these particular slides and you will find all the principles that have talked about some form or the other part in these particular slides.

I will just hold you for few seconds so that you have in your stock and deliberately I have picked up those pictures which I have discussed the earlier sessions of the history. The reason being active when I discussed we have mentioned many of these items with relations. I am not elaborating now any of these, I am just leaving it for your own judgement for your own coalition with respect to all the elements and the corresponding principles that we have talked about.

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Okay what you have learned so far in this, all the principles. If I try to summarise right in the beginning we have discussed about different categories of landscape and then different kind of historical examples and we have discussed about various behaviour principles which ultimately let you the design principles which have just now concluded. We have learned up to this so far and my suggestion is that now on we are going into the design or planning part of it, so far it has a background that we have tried to create which will make you strong enough to understand the next steps here. So the next what lies ahead is the site analysis which I will elaborate in my next lecture. Enjoy it, thank you very much.