

Landscape Architecture and Site Planning – Basic Fundamentals
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Module-04 Lecture-17
Behavioral Principle

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Stage	Action	Result	Process
3rd	INTELLECTION	Concept	Comparative Analysis, Composition, Cost Parameters, Visual Effects, Emotional Effects
	Planning	Composition	Visual Effects
	Highly Planned Poorly Planned Unplanned	Geometric Composition Organic Composition Hybrid Composition	Ecstatic Extravagant Picturesque
	Organisation	Cost Involvement	Emotional Effects
	Extremely Organised Moderately Organised Unorganised	Highly Expensive Moderately Expensive Least Expensive	Soothing Refreshing Disturbing / Ghastly

So now if you follow what I am trying to express, I will give an example, follow the example very carefully. It will be slightly different kind of example that I am going to give you. Imagine, I have told you, you are the user, I am the researcher trying to establish these facts in your mind. Take that way. Imagine, I have told you that I will take you to a wonderful landscape garden. What did I do by saying this? I have added a superlative called wonderful landscape garden.

The moment I have given, told you a wonderful landscape garden, you have registered that wonderful term. And what else you have registered? Landscape garden. And I said that I will take you to, that means it is not here, somewhere else. These are three informations enter your mind through your hearing and now your sensation occurred.

So whether you are going to see that or not going to see that, your mental process has already started ticking. Now I will blindfold you. Close your eyes with a napkin, blindfold you. Then I will take you to a car and then the car starts. Will you be able to tell me which car you are traveling in? And to risk, I have checked with my students and the students if they have

experienced different kind of cars, they immediately say yes sir, I can, this is the kind of car. The point is what is a quality of car, what is engine noise, what is a seating position, is it a tall boy kind of car or is it a low floor bucket seats.

By which even I will tell you people are so much sensitive, some of my students also has reacted, “Sir, if you shut the door, I can make out is it a normal ordinary car or costly car. The moment ignition is on, even I am blindfolded, I can at least differentiate is it ordinary car, cheaper car or costlier car.” Means what? Your mind is so so strong in identifying all these nitty-gritties that your reactions, your mental process keeps on going.

Okay. Now in this, suppose I have taken to a car and then you are, you can probably fairly say yes, I am sitting on a very expensive car. Contrary, alternative tone, I am sitting on a very cheap car, possible. Now the car starts and you are sitting. You are blindfolded, mind it. You have not opened your eyes and I am sitting next to you not giving any more information. I only gave you the information that I am taking to a wonderful landscape site. That is all, no further information in your mind. So your knowledge is only limited to that. But I would be asking you questions while traveling.

Can you tell me which kind of car it is? You may not be able to say the make or the brand but at least you can say what is the level of the technology of that car. You can say it is a very expensive car or it is a moderately expensive car or cheap car. This is how the mental process is working. Now you keep on traveling. After we reached a spot, if I ask you do you know how much kilometer you have traveled, will you be able to tell? Probably, no.

But if I ask you can you tell me how much time have you traveled, you will probably be. Mental process works. Now this mental process tells you the amount of time you had been sitting blind and sitting on the seat and then trying to if not think about anything else but this landscape project which you are expecting to see, then probably you will be able to fairly judge the time that you have spent during travel. You may, you may say yes, I think I have traveled 15 minutes but I would say it will be plus minus.

But if you say that I have traveled 30 kilometers, probably you will not be able to do because mind is not that capable of measuring the distance in terms of kilometers without seeing. If you

would have seen, probably you could have still made a rough judgment. This is what is the process going on in your mind.

Then, the time at which I have taken you there, at that particular point it is evening. If entire place is dark and you have come to that place, you are still blindfolded. I have taken you to a hotel, I have taken you to the first floor level. If I ask you do you know at which floor you are, you will be able to say. How would you say? Because your mind is counting the number of steps roughly. At least you know that you did not walk at the same level and entered a room. You have gone up by steps and entered a room. That means you must have not been in ground floor, must be upper floor.

Now the mind is so strong to work that if suppose I take you to the second floor, then your mind is going to count how many turns in the staircase have you taken. This is how the interesting part of mental process is. And then once you do this, you will be able to say I think I have come to the second floor level. That is the result of perception. Then after that, you enter a room, your blindfold is removed. You go outside the door to a balcony and you find it is all dark, (05:57) dark, you cannot see anything. You will not be able to say what lies forward, you will not be able to say.

So your visual aid is restricted in the absence of light. And in the evening, you will find that mostly the birds do not make sounds, so you will not be able to make anything, make out anything, so no sound. So you cannot make out whether it is a forest in front, whether it is a garden in front. But if you do hear the waves breaking, then probably you will be able to say I think I am next to a sea. That means your hearing now started becoming active, eyes did not help. This is how the whole process will keep on going.

Okay, this much, go to sleep. Next day morning, wake up and then you go to the balcony and then you find a wonderful garden in front. Let me change that wonderful term. You find a very ugly garden in front, what will be happening in your mind? Your perception is you will say this is a garden, this is not a commercial center, this is a garden. So when I informed you about wonderful garden, the garden matched. You will qualify this, okay, this is garden.

But I said wonderful but you are seeing an ugly garden, your mind is now going through the process of comparing. I was told that it is a wonderful garden but I find it to be ugly. Your

intellection stage worked. If you see the whole process how you have gone through, your sensation process went on for longer. Your perception process probably slightly started before but still it is after sensation. How? In the sensation you have been told that it is wonderful garden you are going to go to and then you will see you have heard sensation when. Then perception, wonderful garden as an expectation and then you have traveled, you know the cars.

You have traveled a long distance, you have a time sense. You have gone to the hotel and you have gone to the upper floors, so you know the rise. And then you have opened your eyes, then you found dark. So you could not make anything but your sensation is still working. It is only some of the sensations are blocked, other sensations are still working. And then intellection is I do not see anything in front, so I cannot judge. That is the intellection result.

But next day morning when you go out and you see it is a garden supposed to be wonderful but is ugly, you wind up and your intellection process continued. And then you have inferred I have come to a garden which is ugly. This is, result is called concept. You have conceived. What is concept? You conceive something, you have conceived that this is not a wonderful garden. Contrarily, if suppose I have taken you to a place where I said wonderful garden but in the front this is not a garden, it is a slum.

Only thing is unfortunately the slum did not make any noise, so in the night you could not make it out. But you are now seeing a slum, then your perception is now going to be cross-checking with the checklist that you had before that it was supposed to be a garden, it is not a garden, it is a slum. It was supposed to be a wonderful garden, it is not wonderful at all, it is ugly slum. And your concept at particular point is I am seeing an ugly slum. This is what is the whole mental process every user go through.

Let me draw the example again from the zoo. In the zoo, what happens is your experience if you recollect, you will find that you have, you know that there is a cave and there is a tiger. You went by the side of the wall and next is the moat. And when you went there, you found the tiger was sunbathing on the edge of the water body, the moat. You went there, your sensation is you saw. Your perception is that is tiger, that is not a monkey. Your perception is knowledge. By knowledge you know this is tiger, not a monkey. Your perception is done.

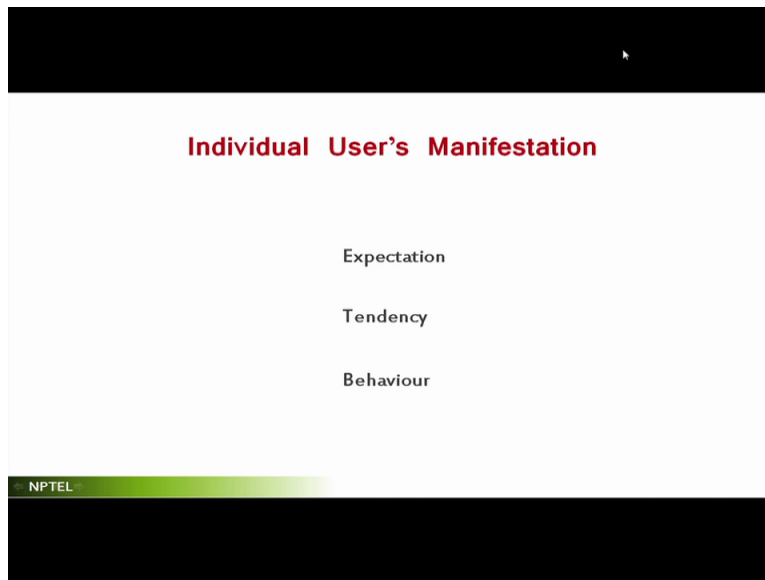
Your intellection is it appears to be a nice place, the true kind of environment that has been given to the tiger. That is your mental process. Now let us go to the mental process of a tiger. The tiger was sunbathing; the tiger was hearing all the sounds. You went there and suddenly you became so excited and started making, "Tiger, tiger." The moment you did, there is a tiger woke up, looked at you. Sensation process is gone. The tiger then, how it (per) perceives?

They know that any other animal other than tiger is a threat to them, so the tiger's perception is they have a threat. That means you are the threat in front. And what is the intellection process? In which if suppose the threat is consolidated, the tiger will simply get up and go and hide in the cave. You lose your chance. But that intellection is the tiger conceived the action that it should move out of this and go to a cave and take refuge. This is entire mental process. Try with all animals, we will find.

You must have seen in the zoo, say whenever we design the zoo, our one of the primary concern is that we should try to create the nature as far as practical, as far as natural and original. And most of the current zoos are such that where you think you are out of place. In the earlier zoos in the urban areas, we used to think that the animals were out of place and we are the owners of it and the users, active users of it.

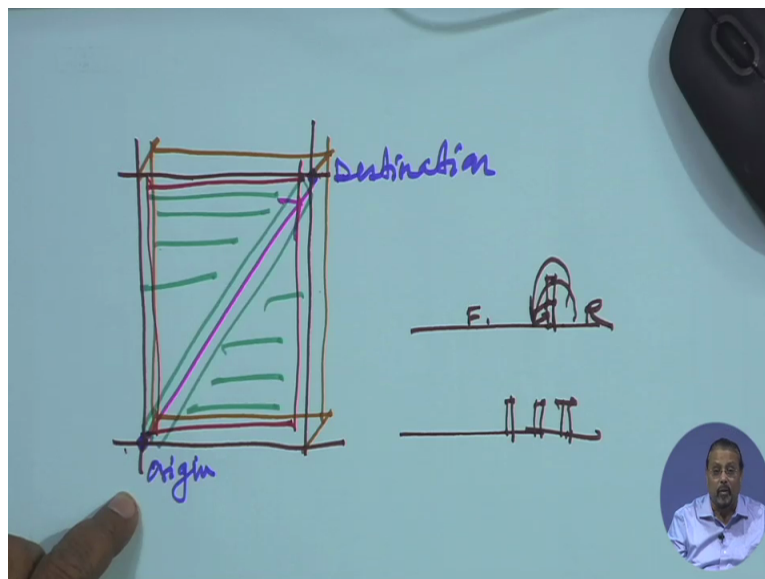
But current days, concept of the zoo design in the landscape is that we should, we, the user, as a viewer should feel that we are out of place and that is a place for the animals. That is why the national park has been designed. Okay, this is how the whole mental process is. I hope the point has been made clear. If you have further clarifications to see, please write in your forum, I will be happy to clarify.

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Then there is another set of user's (percepti), user's activities. These are very essential. I will tell you when you design the landscape, if you do not understand the behavioral patterns of the users, behavioral pattern which varies from age, sex, also the mental state, also the physical state. I will explain bit by bit. This point you pay attention to, individual users. How does an individual user manifest? Every user, put yourself in the user's position and then try to see what I am saying. Every user has expectation of the mind, I will give one example.

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I am drawing a sketch here, follow this. Suppose there is a park, city level park. We have roads, we have roads all around. This park, which has been used by children for playing football and all other things. You want to go from this particular point to this particular point, this is your origin and this is your destination. When I am explaining this and you are listening to it, try to emulate yourself that you are doing it. You are trying to go from this origin to destination.

What will be the common tendency? The common tendency of the people would be, every individual I will tell you whether it is animal, whether it is human being, every individual is cut short. You cannot deny it. At the core of your heart, if you are honest, you cannot deny it. If you want to go from here to this, mind will measure how much distance you have to traverse to travel along this and then go to this which is certainly trigonometrically longer than the hypotenuse. And the hypotenuse, it is shorter.

Every individual will have a tendency to go from here to here, they will. This is an expectation. I will design, as a landscapist, I will first explain what is next. The first stage is here, expectation of going from here to here direct. The cause is or rather purpose is to minimize the energy. What is that energy? Energy of travel. Basically what happens is that your travel time has to be reduced. If you reduce your travel time, suppose you are walking, in a car, you do not care.

But if you are walking, your travel time is directly correlated with your energy spent. So the more longer the distance you traverse, more energy spent. And every every animal and human being are always in the lookout of how to save energy, how to save individual personal energy and get the maximum results. The maximum result is going from here to here and the (maximum) minimum energy is spent by going by this, more energy is spent by this, so people will go by this. Done? This is what is expectation.

If suppose I allow this expectation to persist, then what will happen is the tendency will come in. What is that tendency? Interesting. Your expectation is go from here to here by the shortest path and your tendency is to go by, go from here to here by the shortest path. That is a tendency and you will go. If I still do not stop you, then what will happen is you will consolidate your tendency and ultimately go to the next stage called behavior. It will become your behavior to go from here to here.

So your expectation of going by shortest distance which has been consolidated by tendency because we did not stop you, so tendency is to go. If you frequently go, you think about it if this was your house and this was your school or college or office or market, you would have always taken this. So your tendency is to always minimize energy, minimize energy, go by shortest path. And if nobody stops you, then behavior and then interesting thing happens.

The moment your behavior is that you go by this, nobody stops you, then automatically what you have done, you have created a path, you have created this path. In fact, very this idea or this kind of phenomena has been very, very lucidly explained by Christopher Alexander with his book called 'The Pattern Language'. Read this book, it is a wonderful book. The Pattern Language if you read, read like a story book.

It does not have lot of complexity of equations and other things and mathematics, it is the daily phenomena is explained so easily. Okay. These are, this kind of things are discussed in that. Okay, now the point is if suppose behavior results in going regularly and this is a football field, what will be the result, ultimate effect? Ultimate effect is going to be that this particular space is going to be denuded of the vegetation, there will be no grasses.

And since there will be no grasses in this, then you will find that the whole green grass, this is green part, these are all green part and there is a yellow part means the bare soil which is contrary to the function of this particular field. Now suddenly the whole the community woke up and they said, "My goodness! Our football field is being cut, split and now we have a footpath over there." We do not want it. What, now the landscape action starts.

What is that action? You want to stop that behavior. To stop the behavior, go backward. You have to stop the behavior and to stop the behavior, you have to also discourage the tendency of it. And to discourage the tendency of it, what you do is you have to basically reduce the chance of executing their expectations, so do not fulfill their expectations. What we will do? Very common solution, you just make one small high fencing, very common.

High fencing you do and you are very modest, you do not want to make the fencing very high. You just want to be very modestly indicating to people, please do not cross, see I have put a fence here and please do not cross, you are not supposed to cross that, so the fence. Fine, you had

been modest but the users may not be that modest. What the we will do now? I am drawing a section of the fence.

If suppose, see the first action I will tell you, the first kind of action to give an idea is the sense of difference of place that you are not supposed to go from here to here or cut through. So by how you do it? We put bollards. Bollards means basically these are kind of posts that you do put there, is bollards. Just an indication. Have you seen in the park that earlier they used to do, nowadays people do not do because there is a security who will be whistling the, blowing the whistles. And see and the, you have a small plea written keep off the grass. That means do not step onto the grass.

It is only a very gentle way of reminding people that you are not supposed to step on the grass but people are ruthless and people are doing it. So then immediately put a security to blow the whistle telling that do not step on the grass. These are all different ways of solving the problems but actually in the landscape when you are creating such a large landscape, how many people will you appoint? So generally what we do is we take the help of the elements.

Now this, if suppose the bollards, I am drawing a section again. You have, just trying to give an idea that this is the field and this is your road, please do not go. What will be now expectation? Expectation still persists. What will be the tendency? Interesting, the tendency is people will jump over it. What is a behavior? People will jump over it and go. So you have not stopped really, you could not stop really. Then the designers become more I would say wiser. And what you do?

You will be raising this boundary, fencing. Up to what height? Up to the height that people cannot cross, scale. But do you know, the child may not be able to cross this, aged person may not be able to cross but the young person like you probably will just hang onto this and then ultimately jump. You will take this trouble only if you feel that taking this trouble is less costlier than going by shortcut, then you will be doing this. Otherwise you will say no, no, no let me go by this.

What happens is now you start raising your boundary wall or fence bit by bit, bit by bit till the point that nobody can cross. Your whole landscape is now being, as soon as you have given this, this particular boundary wall, then you have objected visual connectivity with the other people to

the park. Now from the section if you see that if somebody, if the height is such that people are walking, standing at this particular point, they cannot see the park, then what is the point having the park over there which should be a visual delight?

Then what you do is you change that material. The fencing that we have, instead of putting wall, we give a perforated fence. Once you give the perforated fence, people can see through. But perforated means again chain-link fences and all other metal fences or maybe perforated brick walls. If it is chain-link fences, then it becomes a very hard surfaces all around which you do not want to see. Then we add another element, we add creepers along with it so that give green element.

So basically what happens is you will see, just trying to negotiate the mental processes or the behavioral patterns of the users, we keep on adding elements by elements and try to be honest to the selection of elements which makes a true landscape site. This please do not forget. Have you noticed that you have given a fencing, backdoor fencing in your own house and then you find very regularly a dog is trying to pass through the backdoor because you have given the space and such a dog can always pass. But of course, thief cannot or outsiders cannot.

Just to obstruct that what you do is just in front, you put another set of vegetation hedge so that backdoor outside and the hedge inside. Now even dogs cannot cross, but the hedge which you have given over there is a good fodder for a goat. Then what happens is suddenly you will find that some portion of your hedge is eaten away. So what you do is you select that particular plant which is not attracting other cattles. This is how design by design, by sequences, you keep on changing your elements and ultimately you make a creation. Okay, so this is very, very important stage that you have to note.

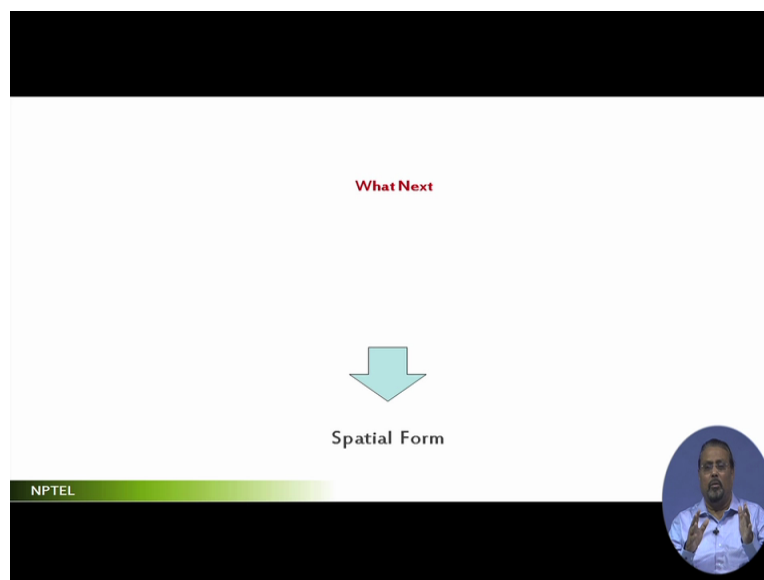
So if I summarize this, basically the first stage, the second stage and the third stage of the mental process that you take note of and then the user's manifestation do not disregard it. Why you should not disregard it? Because one may be the user but you are also a user to another landscape space. Just because you are designing, you do not think that you are not, you are free from all these kind of mental processes, you are also. So I always say that always use, whenever you are designing a landscape, you always use a concept called personal analogy. Analogy, I may discuss later but okay I will just, let me give a clear-cut some idea about it.

All these analogies which are very helpful in proceeding with the design of which one of the most important thing is the personal analogy. The personal analogy means when you are designing for somebody, you put yourself in the shoes of the same person and you offer a solution and then try to analyze that particular solution yourself being a user. This is what is the personal analogy.

And I will tell you the best designers of the world, they always use this personal analogy. They do not say it. It is inside at the back of their mind and they use it. What could be the other analogies? Other analogies like say it is fantasy analogy, you create a landscape which looks like fantasy. You create a landscape which is of symbolic nature, so symbolic analogy. Personal analogy, symbolic analogy, fantasy analogy, mechanical analogy, what is mechanical analogy?

If sometime if you listen to my lectures on the, and I am disturbed in your landscape, in that case I will show you some examples. The mechanical analogy is the whole landscape looks like very mechanical. You have different kind of, in IIT itself we have a kind of garden in which different mechanical items are displayed for the education of the children. So if I go to that particular garden, it is not a flower garden. It is with the mechanical analogy. It is different gears, wheels, chains, such things. Okay, so this you keep in mind.

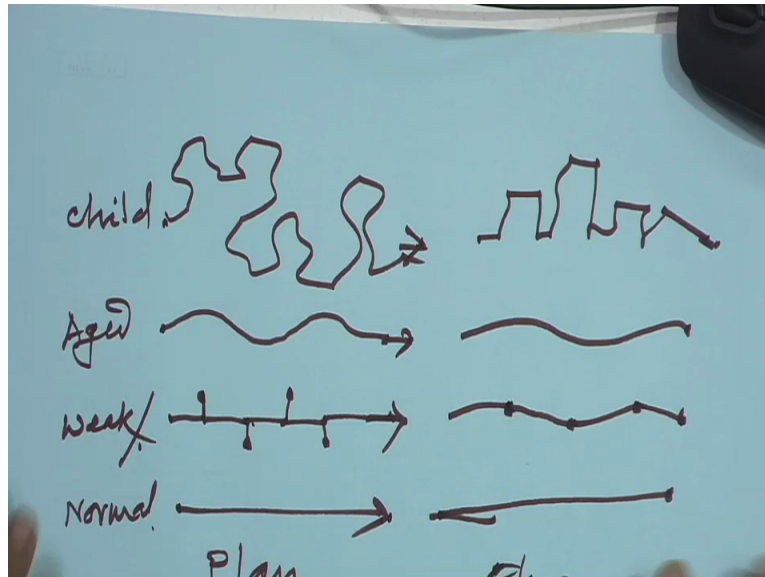
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What next? We have discussed about the mental process, we would be leading to now the spatial form. So the idea is that when you think about behavioral aspects, take note of the behavioral

patterns of the users and then you design the spatial form. I will just give one small example with a very quick diagrammatic thing.

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The pattern of movement of people vary with the age group. A child, in plan let us look at it, a child wants to go from here to here. An aged person, this is for a child and this is for a aged person and this is for a weak or diseased person who is not well, medically unfit. Okay, this is origin, this is destination. He wants to go here, wants to go here and the same here. What will be the kind of pattern or movement in plan? The aged person will go, stroll like this. The weak person will go, then stop, then again come, go here, then stop, then go here, stop, go here, stop and finally reach.

What the child will do? The child, I do not know. I am just drawing because I do not know. The child will move in any direction. This is very interesting in plan. Now what about the elevations? Again, what will happen to the normal person that I did not say. A normal person who has no business of enjoying landscape or something, he will go straight. He will not waste a single moment in hovering along this. This is very interesting in terms of, if I say in terms of plan.

What will happen in elevation? Origin, destination, the child will try to go up and then rise up and then this, and then jump and go here. The aged person will try to go by a slope and then here. The weak person will go here, sit, again go down, sit, go up, sit and go here. And what this

person will do? He does not mind anything, he just simply wants to go this. This is in section or elevation. Let us say elevation. This is interesting.

That means the behavioral pattern of the people, the movement pattern of the people, they are all very much guided by the age and sex and also the nature, the mental nature of those. So what I suggest is that whenever you are planning, in spatial form I will discuss some of this, whenever you are planning, pay very strong attention to the behavioral patterns of the users. Is that okay? Then, later we will discuss in the next lecture on the spatial form. Thank you.