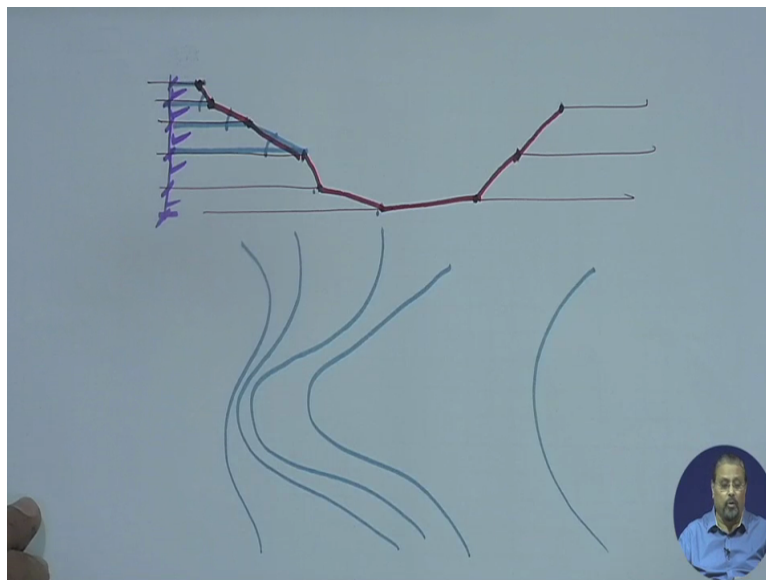


Course on Landscape Architecture and Site Planning-Basic Fundamentals
Professor Uttam Banerjee
Department of Architecture and Regional Planning
Indian Institute of Technology Kharagpur
Lecture 30
Module 6
Site Investigation, Analysis & Appraisal (Continued)

The point I was discussing for Slope Analysis see basically it is the gradient between the first one Contour line to the next one, see with respect to my two fingers I am showing you if this is one Contour line and this is the next Contour line, if they are close to each other than the gradient of this particular service is steeper but vertical drop is same, if the same Contour line shifts and comes here and then you join of line between this this has become general.

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It is something like this trying to cut a section to the Contours if I try to see the section to the Contour I would see only points, if I have drawn like this. Now to give a little bit of idea about it basically what you have drawn is each of this plate, these points are representing the plates I hope this line is clear, ok. The condition of this Contour drawing is this is the dimension by which is lower from one to another this is equal to this, to this, to this, to this. That means Contour line Contour drawing in a rather Contour lines in a Contour drawing are at equidistant intervals vertically but not necessarily the position of that in plan is at the same distances away.

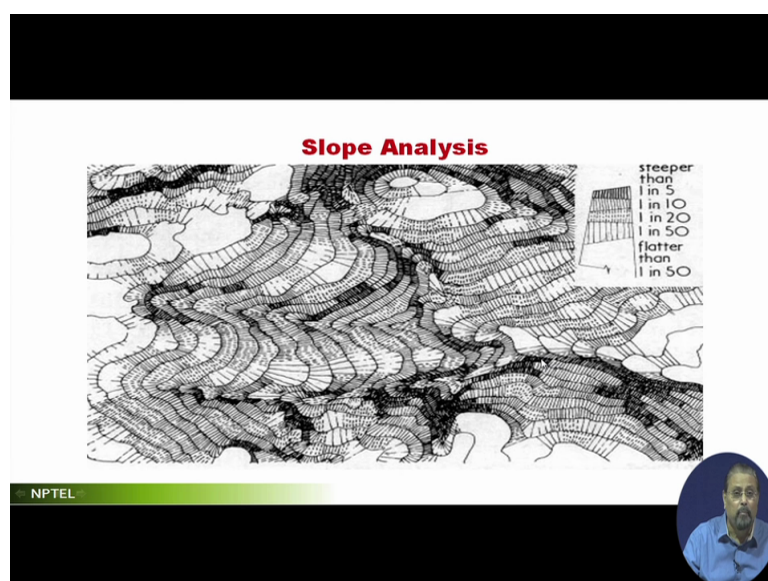
So if it is not at the same distance away then what happens is if this is the first level, the next level you connect this, then you connect this, then you connect this here, then here, then here, then here and then here. This gives us one information that means the Contour line which is a cross section as a point is at equal elevation down, down here and here again up and up and up here. This drawing you do not try to measure exactly the length because I am quickly drawing it.

But basically if this was the plate, this was the plate, this was the plate and this was the plate and here then this particular line is at an angle here, here you will see higher the angle steeper is the slope of that particular service this in you can straight way infer from this understanding is that your the Contour lines if they are closer the space or the surface between two Contour lines are steeper, if they are apart then they are gentler.

So if now I will show you a Contour line say I am just drawing arbitrarily this what you have to infer over here is first level, next level, next level and next level they are very close to each other close to each other, this one is distinct apart but this is close here it simply indicates that this is steeper, this is also steep suddenly become gentler and then you will see that it has become gentler and after that suppose you find that the next Contour is here that means from steepness to the slightly gentler to little more gentler to very gentler, ok.

So slope is nothing to do with the levels, slope is only the gradient of that surface between two parallel Contour lines, this is very critical in my landscape project and that is what is shown here in this particular diagram in the screen.

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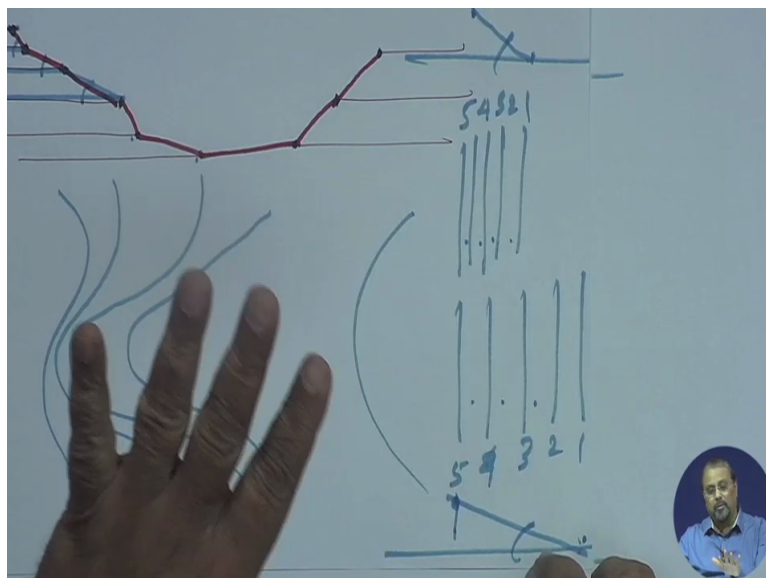


Look at this particular screen, the slope analysis you know what is done is if you try to represent this we can do it with the color or with the hatch patterns. If you do it to the color and wherever it is steep you give darker color in the monochrome, say you select any color and find out the monochromatic range of that and wherever it is gentler you give lighter chrome of that or wherever it is steeper you give a darker chrome of that by which if you fill up the whole area then you will find that you can straight way indicate which portion is dark, which portion is steep and which portion is gentler, ok.

Here since it is a hatch pattern that I have selected as an example in which if it is plain like this white that means it is gentler check here check at this particular point, wherever the lines are closer they are darker and wherever lines are apart along this they are gentler, that is represented in a legend like this in which if it is say steeper than 1 in 5 so this is closer lines, then 1 in 10 is this, then 1 in 20 is this and then 1 in 50 is this and then flatter than 1 in 50 is this.

That means by this you can also subdivide much more, if you are not happy with this few gradations or divisions you can make further subdivisions, no problem, ok. If suppose this was absolutely flat then what will be the hatch pattern of this white and if it is of the uniform form slope all along then it will not have the same hatch pattern like.

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An example let us see I am drawing here itself in the same page so that you know you do not lose track of what was earlier, if suppose you find that the lines are closer one example, if suppose I am drawing and the lines are apart but at equidistant, first level there is another one

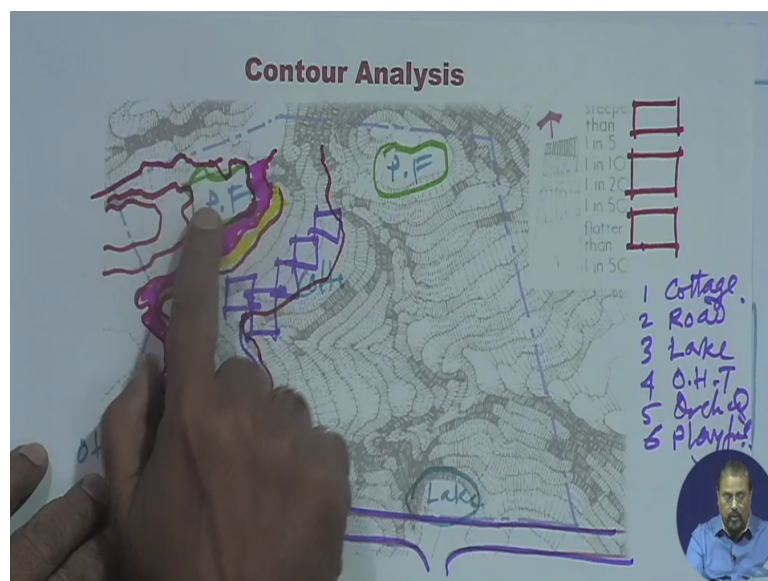
I have to draw one more line, first level is the highest level, the next level the same as this, this is if suppose this is 5, 4, 3, 2, 1 and this is also 5, 4, 3, 2, 1 in such case the 5 is here, 5 is here the same level, the 4 is nearer, 3 is nearer, 2 is nearer and 1 is nearer and they are equidistant. Here 4 is slightly apart, 3 is little apart from 4 and the 2 is little apart but all these apartness is equal.

In such case what will happen is you will try to find out what is the first level here and what is the one level here and draw the line with respect to horizon, ok. And for this one this is the first level here, the first point here and there is a one point here with respect to horizon you try to draw the line, you will automatically find that this angle and this angle are different and this angle means now clearly indicates pictorially clearly indicates that if the angle is lesser then it is gentler and if the angle is steeper if the angle is greater than it is stepper.

And that if you represent with respect to the kind of patterns that is shown in this particular drawing that if it is steeper it becomes darker. So now if I look at it this particular site without doing any having any idea about what is the Contour elevation of each one of these Contours, one can easily infer that this is a very steep area very steep is steeper than 1 in 50, this portion is steeper than 1 in 50 by this legend, this one is steeper than 1 in 50.

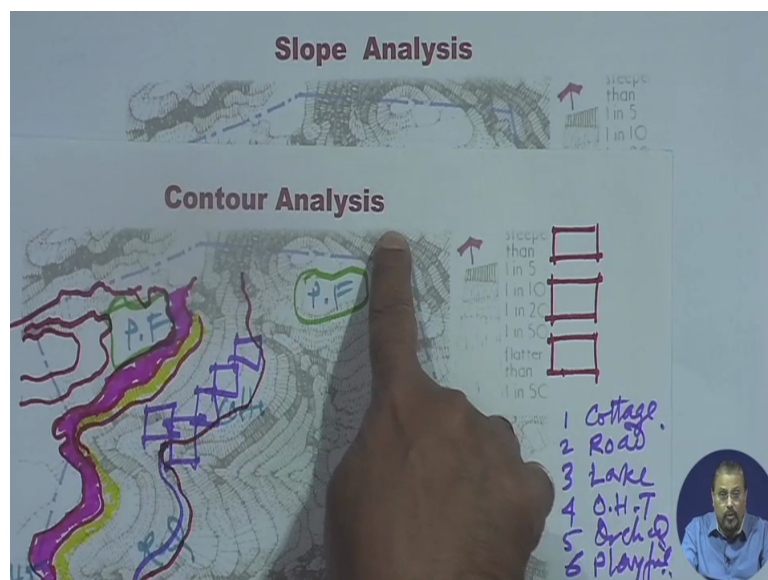
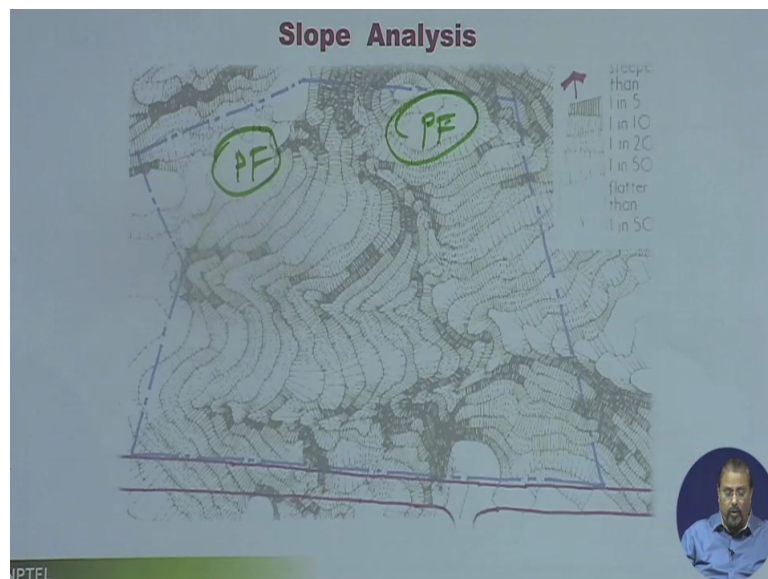
So I should be now checking that what all functions can be placed over here with respect to its limits of slopes. Example suppose in this particular site my client wants that I would like to have a play area, play field.

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Now you must have seen in the Contour elevation I have already decided that the playing fields are there and now they just check with the same drawing I am bringing again if suppose I check that this is gentler because it is white, this is gentler is white that means it does not have a slope problem. So these are now befitting well in my (Contour) Slope Analysis so I use the similar kind of drawing with respect to this.

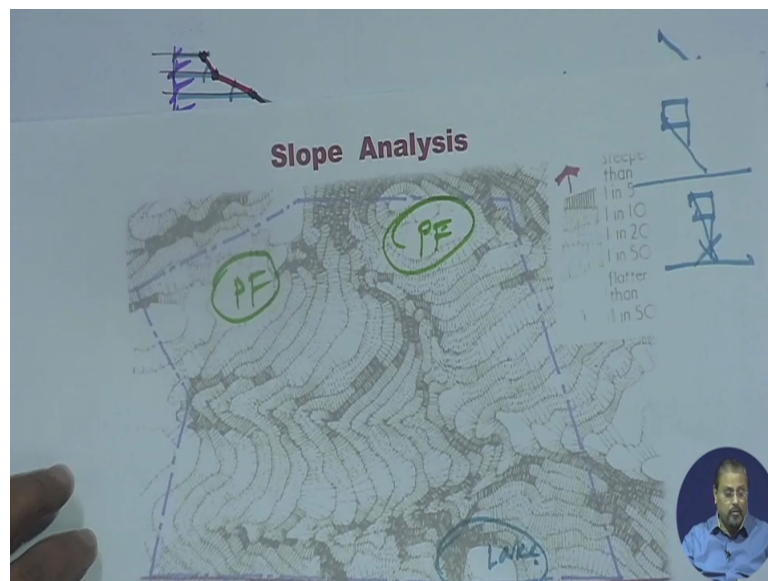
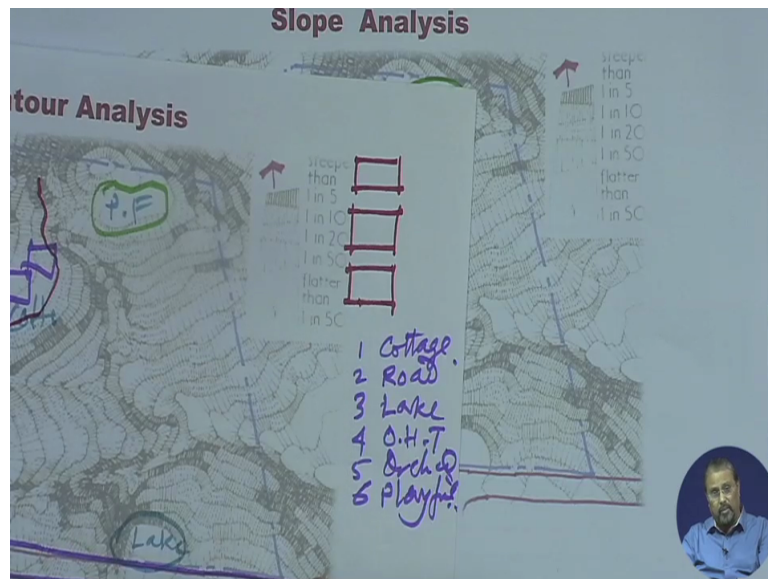
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Now see this is Slope Analysis initially I was doing Contour Analysis in the Contour Analysis I have found out these two locations are good for play field and now when I am checking with respect to my Slope Analysis I still do find this portion is play field and this portion is play field, is not it.

That means when I was doing this I never referred to Contour Analysis, when I was doing this Analysis I never referred to Slope Analysis now I am only I am comparing for our clarity of understanding, I am comparing, ok.

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Now in this Slope Analysis basically what you will do is you will check all the functions that you have listed an example let me take the list that I have shown here, do not look at the Contour Analysis just take the list look at the list. Cottage, road, lake, overhead tank, orchards and play field, play field means flatter area.

So any flat area within this Sloped area I will consider worthy of play field, cottage do I have to really go for flat area or can the cottage be on the steep slopes it can be on the steep slopes because the cottage is which you are placing over here they can be on the steels. So here

essentially this pictorially if I show you with respect to this drawing here itself let me show you, that if I have a Slope land like this with respect to horizon, I can always put the cottage over here with steels, that means technically I will resolve it.

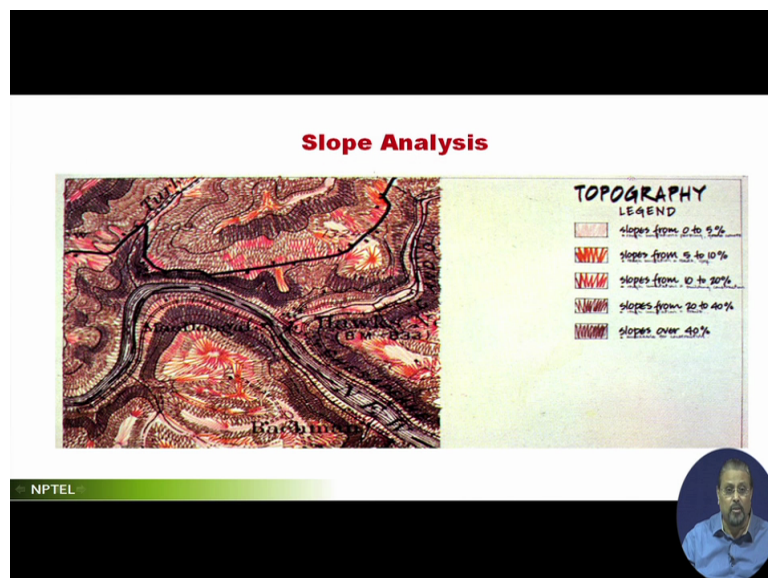
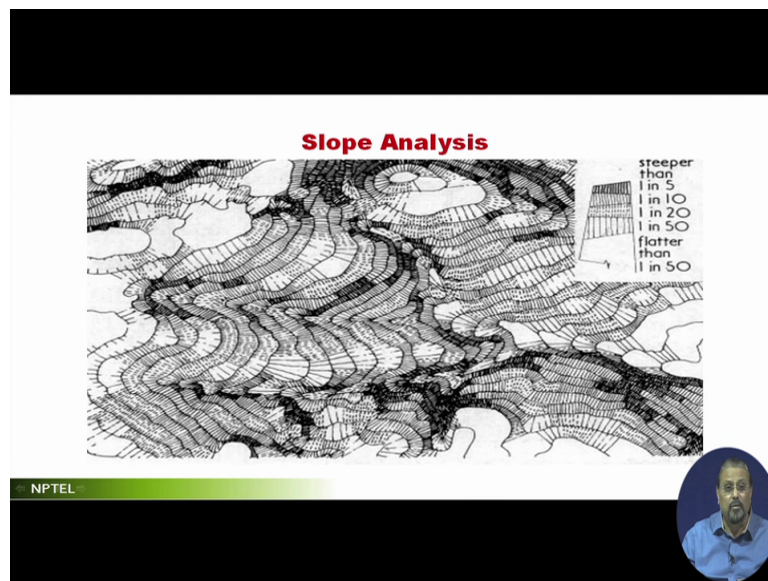
So steepness is not really that a strong criteria beyond the particular limit, if suppose it is far the steep like this where I cannot hold the cottage and I cannot make the props or steels than that particular section will not be selected. So you accordingly take this into consideration, in terms of Slope Analysis again water body, does it have to do really anything to do with the what slope no, because in the water container in the pond it can be very steep slope at the edge or it can be even gentler at the edge.

So the thing is still you can still find that wherever it is steeper and the lots of stepper areas are coming within the periphery, it automatically brings you down to this particular area which is called lake. Overhead tank does it have to do anything with the slope no no, so overhead tank can be anywhere because you are not following the elevation criteria when you are doing this.

But one limitation can you put an overhead tank at this steep slope here like this, can you put an overhead tank on this particular steep slope you cannot. So what happens is automatically all the steeper areas get negated for my overhead location overhead tank location, rest of the areas are fairly good enough.

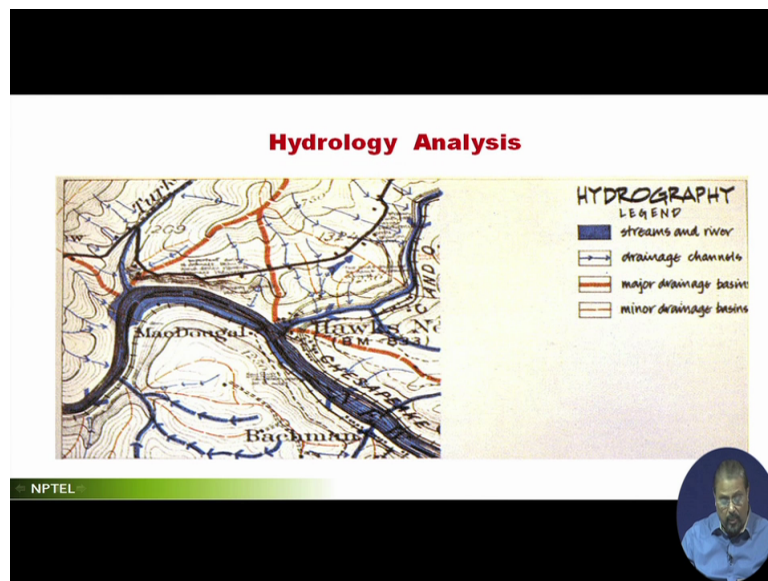
So here the idea is when you are analyzing you are not referring to the Contour Analysis that we have done before and you are not referring to where you have found the potential locations for the rest keep it apart, do it only for the slope and see what suits the best for Slope Analysis and accordingly inferences, design criteria, check list, compliance will come later, ok. If a Slope Analysis has been fairly done then you go for other (12:52).

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Let us see what is next, these are you know different see Slope Analysis this is one level of representation, some people have used this kind of representation is basically how you represent the best, ok.

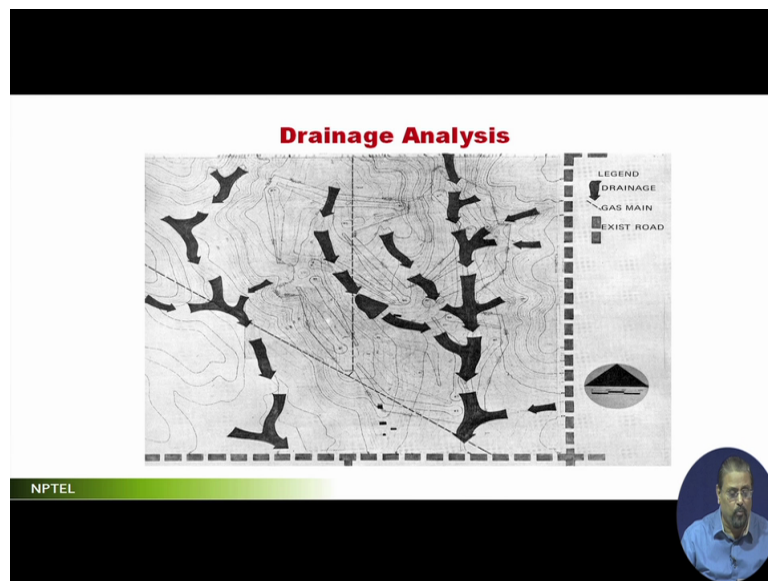
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Then comes the Hydrology Analysis in the Hydrology Analysis basically you know what happens sometimes in the Hydrology Analysis people merge both means people merge both means one is that the Surficial Hydrology and the Subsurface Hydrology they do it with one particular set of Analysis, but I would suggest that you do it so some that is why quite often the (())(13:31) Analysis is synonymously used as a Hydrology Analysis. In my opinion and my experience of communications I would suggest that never confuse this between these two.

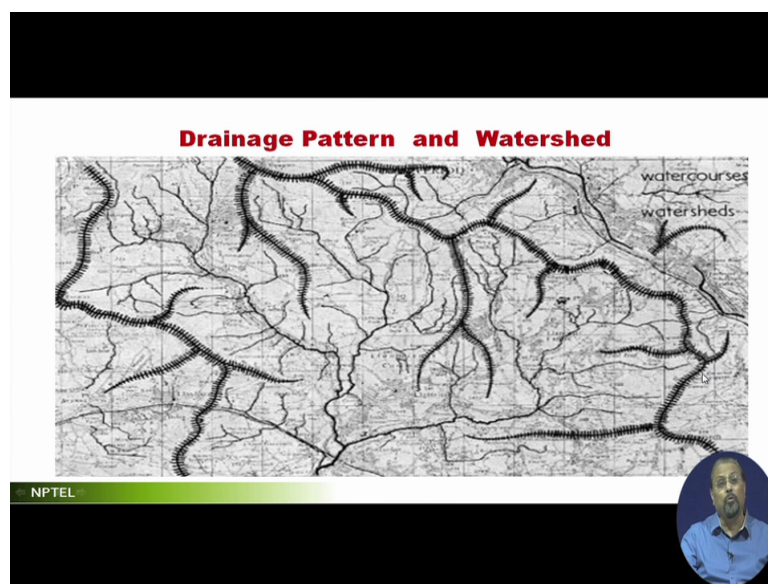
So the Hydrology Analysis you divide one is Subsurface Hydrology another is Top surface Hydrology Top surface Hydrology is the one that you consider as the storm water drainage, ok. But in this particular drawing which I have taken over here it is basically in the hydrography you know what they have shown is the streams and river, then drainage channels major drainage channels and minor drainage channels, so here in this particular Hydrography it is referring to nothing but the same drainage or storm water channels, ok which I generally I am considering.

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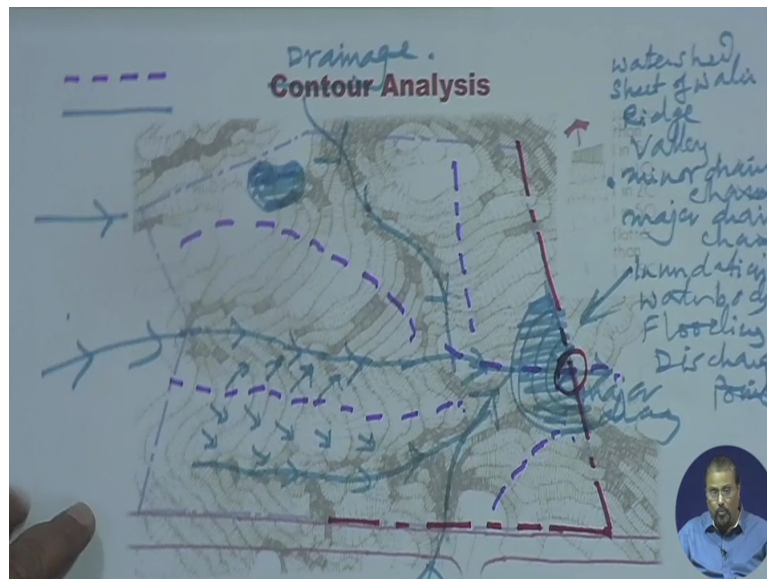
Now let me take this particular picture, in this Drainage Analysis what it is doing is it is in this there are many other items which have shown here the gas lines and the (14:28) road but this is showing the in general the paths of the drainage.

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I will show you another one this is a drainage pattern on the watershed, when your landscape project is regional in such cases you really do not go by the drains, you go by the watersheds. How the entire areas water is now coming into this, if you have seen the full topography maps or toposheets you will understand that that it is a very broad level of information that is given over here this is how the drainage pattern is shown but I will show you with respect to this let us see if I have any more extra sheets, ok.

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Let me let me use this let me use this extra sheet for another Contour Analysis drawing I will rather change this and I will write here Drainage Analysis, ok. In this Drainage Analysis what you do is then what you have to indicate you have to indicate few important things, one is the watershed and sheet of water, the Ridge, valley, ok minor drainage channel, major drainage channel, area for sub suitable to inundation, any water body, area sub suitable to flooding, discharge points, ok. I am trying to write very fast, so you may be able to read properly but you have heard me.

Watershed and sheet of water, ridge, valley let me draw it here on this particular drawing. See whenever look at this particular drawing very carefully whenever you find that your curvature of the Contour line goes outwardly from the top to the lower level, that means if this is the higher level and this is a lower level and the curvature is convexed towards down the hill then all the center points of these curve if you connect they become the ridge.

Let me how it is represented the ridge line is shown with dash line like this. So if I try to identify the ridge over here then this would be my ridge line, this would be the ridge line, this would be another ridge line, this would be another ridge line, this would be another ridge line with respect to this.

See basically why I did not get or bring for you a pre drawn things because I am developing in front of you so that you understand that how you are going to develop in future. So whenever you see this curves in this direction they are the ridge line and if there is a ridge here and then the next ridge then in between is from higher elevation to the lower elevation if

the curvature is inward, here the curve is outward convex in nature, here the curvature is inward contrive in nature in such case you connect all those central point then it becomes a valley, the valley line you show with this, ok.

Now that means if this is my ridge line, this is another ridge line and I am connecting this all these center point is the valley, what has happened over here is just a minute just a minute sorry sorry this line will not remain as ridge because it has gone in. So this is going to go as a valley, ok.

Similarly from here a line that comes like this goes to valley, similarly from here the line that comes like this is goes to valley and interestingly there is another line which will come like this as a valley, atleast whatever I am seeing with respect to this drawing. So automatically you will find one thing, if there is a ridge, next is a valley, next is a ridge, ridge next is a valley, next is a ridge.

If you find any drawing which has a ridge and another ridge in the and there is an absence of valley the drawing may be erroneous, because it is basically look at my hand it is this this particular point ridge, sloping in this direction, ridge sloping in this direction, this is the valley. So the valley then becomes designated as the channels, so whatever is your valley lines the moment you give an arrow it becomes a channel and channel means Hydrological channel or Drainage channel or whatever you call.

And when you have many such channels they are minor Drainage channels and when multiple minor drainage channel gets connected to another drainage channel then this becomes the major drainage channel. I hope I could make the point clear, once you do this you try to find out the outfalls.

Now let us see with respect to my this legend, what is watershed then. If this is the ridge then that water which is falling on this particular surface which is likely to fall on this and then follow the general Contour profile, sometime it may be vertically from here to here depending on this particular profile, this is that watershed and the sheet of water flow.

Now that means water starts flowing from the ridge point to the lower slopes, from here water starts flowing from the ridge point to the lower floor, ok. Once you do this you know that this water has to come here, this water has to come here, then this water is getting connected by this particular valley which is in inner way is a minor drainage channel and this what is coming to this valley which is an inner way of minor drainage channels sloping in

this direction because they are starting from the higher elevation to the lower elevation, so naturally this.

The moment you give an arrow this becomes the channel and the best way to represent the channel is with the arrow. So which direction the water is flowing that you have to be very very clearly stating, ok. Ridge does not have any arrow never by mistake give an arrow to the ridge because ridge will give a wrong interpretation but the valley it is, ok.

Now if I go to this particular legend (watersheet) watershed of the sheet of water flow that I have shown over here, the ridge I have shown over here, the valley I have shown over here and then the minor drainage channel is this and the major drainage channel is this. So major drainage channel also will have to be have arrow, so it is like now my drawing is becoming complete that water is coming from this direction to this, then flowing through this getting (collected) with connected with another one, coming to this getting connected with another one and then going in this direction.

Then if this is so then this is from my site where this particular line say look at this particular line which is very (23:01) at this particular point but let me redraw. I have deliberately kept it (23:06) so that you do not get confused with other lines which I am drawing, ok. This is my syncline and then with respect to this, this is the point where the water is being released. So this is my discharge point.

So if I say this discharge point basically to from my site this is my discharge point none of these because they are all originating points this is a discharge point. Now suppose originating point I am saying with respect to my site if suppose this particular thing, this is my syncline if this line comes from here, this line comes from here and this line comes from here then you have to consider one thing, this is minor drainage channel to your site but this site is also carrying the water from the region from the next lands, the next lands, the next lands, all these becomes very very critical, I will discuss all this things when I will discuss about the drainage design, overloading of this information will not be very appropriate so this is how you do it.

So this is my discharge point in case you find that the discharge point there is not much a good exit of this particular water then automatically what will happen is I am using the colors which may not be really very very suitable for these but however when you find that the water that is not being able to discharge but this is the lowest point of discharge and the water

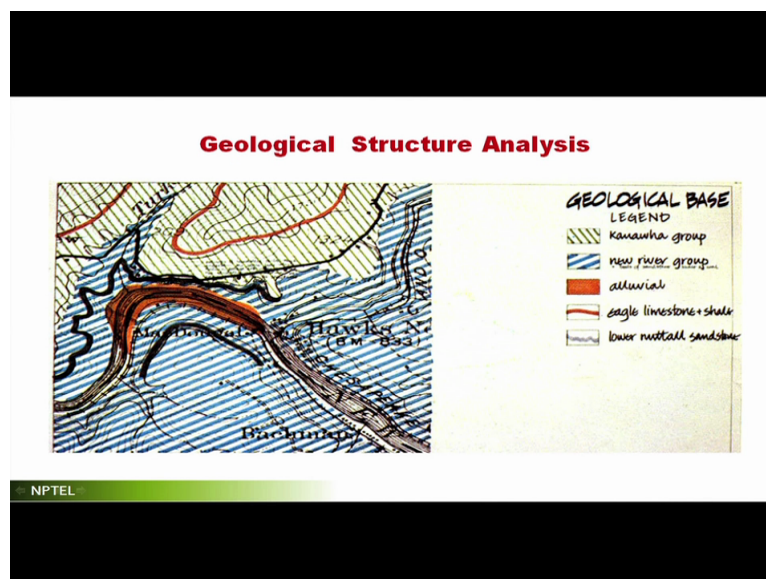
is not getting the exit out in such case gradually you will find that this will start collecting water and this is then the zone which I will consider as the area subjected to inundation this.

If suppose in my site I have found somewhere somewhere I am just trying to draw an example somewhere I have found that there is a stagnant water body in which water is not being drained out it is just contained within, this is the water body which I have listed over here, this is the area which is subject to inundation in the water body the water will remain fixed with subjected to little bit of variation because of the evaporation.

But otherwise although water is contained within, inundation area is such where you will find that the water is now going to go out and in sometime, ok. If the inundation area is not clear over a quick succession then this area will be subsequent to flooding. So when I am going to do the Drainage Analysis of this I am going to check all these aspects, I hope this point is clear, ok.

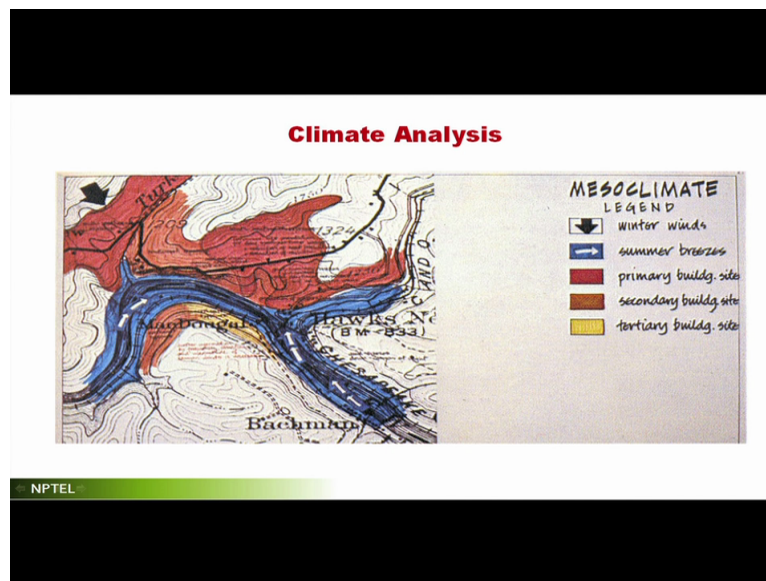
Now so when you do this particular Drainage Analysis the major analysis which I (cons) feel very very important for your landscape project site is one is that it is the Contour Analysis, Slope Analysis and Drainage Analysis is very important.

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Now quickly I will go through the other analysis so that I can conclude this discussion now. Geological Structure Analysis subsoil level at the subsoil level whatever is the straighter that we are trying to find out and at the then at the top soil level that come here.

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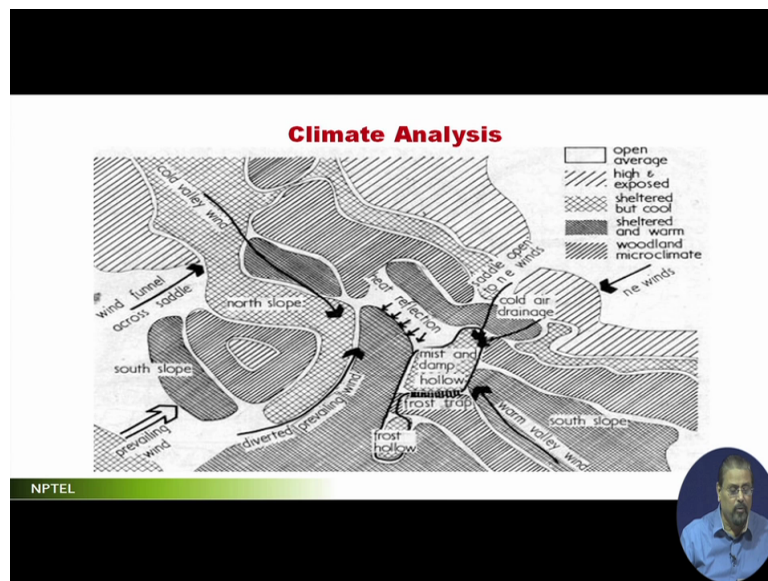
In the Climate Analysis what you are doing is you are trying to find out the climatic factors which are affecting my particular site. So essentially what it is like say it is as listed over here the winter winds, the summer breeze from which direction the summer breeze comes see this particular one is the white is summer breeze that means during summer the breeze is going to come from here, during winter the breeze is going to come from here.

So basically what you are doing in the Climate Analysis very standard which you have done for your architecture projects as well, that you are trying to find out with respect to the site how the sun is radiating is raised to this particular site, which portions are the shadow zones, which portion are the lighted zone or sunshine zones. In terms of wind what is the wind direction, what is the you know the frequency of wind flow.

So wind velocity the variation of the wind velocity in terms of which is represented in the wind rose diagrams that you are going to check. If there is any wind shadow that means the area which was supposed to that the wind but because of the Contours and the profiles you do not have that, so wind shadow zone or is there any wind funnel affects which is regulating the entire wind gently flowing but suddenly entering into your site through some (())(27:22) and ultimately the velocity increases there is a windchill effects so these are the things which you are going to check with respect to your site.

I am not going into the detail of this because for each one of them there lots of discussion which I can do, ok.

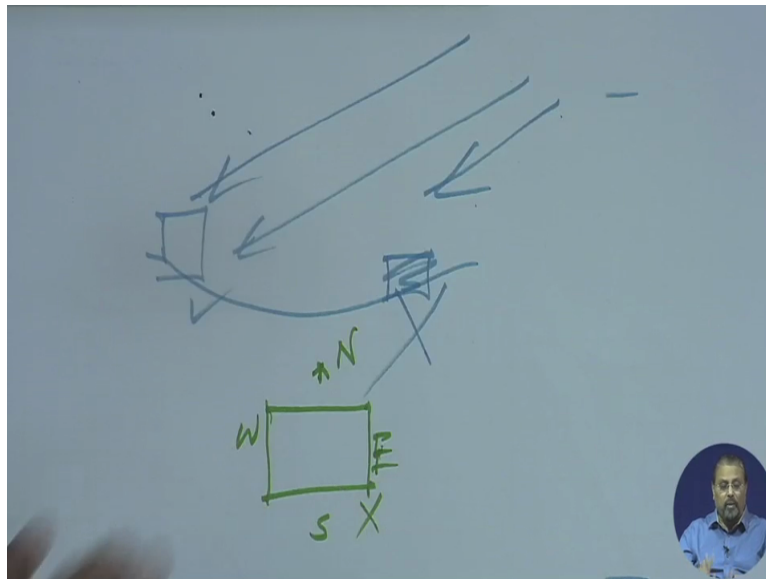
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These are only some representations that is there any wind funnel or if there is any south slope, if there is a Pavilion wind or is you know said diverted Pavilion wind that means there must be something which is obstructing the wind and ultimately diverting.

So this is only a representation, you are knowledgeable enough to find out exactly how the wind is behaving within your this particular site, ok. Now once you do this what will happen is automatically the same site analysis which diagram which had been using for Contour, Drainage and others you can also do it for your wind, you can also do it for your sunshine and then you accordingly decide with respect to say Climate Analysis the position of my cottages at this location which can get good amount of sunshine most of the time of the day then that is the best location.

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And I am sure that if suppose this is the wind radiation direction and then you are placing, I will just show one like say if suppose you have a profile of this particular site in section and you have most of the sunshine period is here in this direction, I am sure that you are not going to put your cottages here, you are not going to put. You will always prefer that this is the area which will be subjected to sunshine at radiation for longer duration.

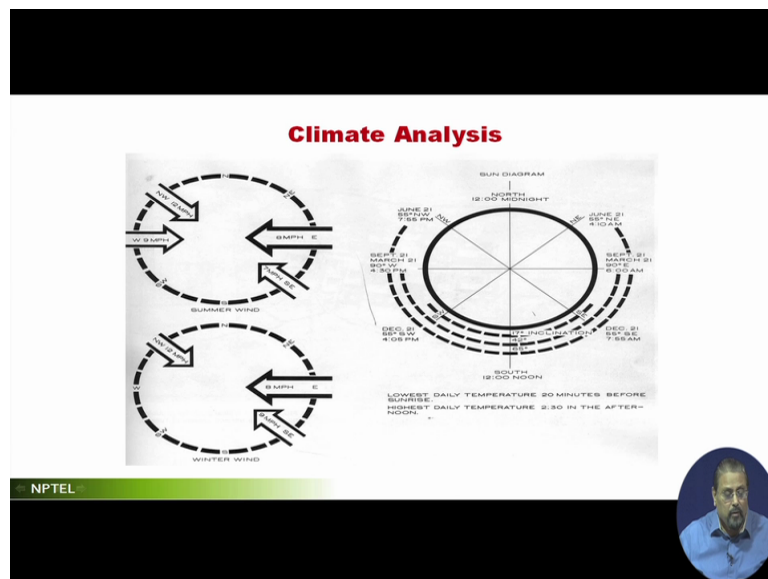
So this becomes selected that is how you do the selection and you decide where all those functions, essentially in this two, three things functions which are very much affected by the climate that is one is the location of the cottages, then also location of the plantations which is supposed to get the sunlight for its you know photosynthetic actions. So you are going to decide rest of the things you do not have to you do not have to decide about the road based on the wind or the sunshine, neither the overhead tanks but the play field you would because the play field has analysis orientation.

In this what happens is if suppose you find that you are actually this is north, this is east, this is south and this is west. Suppose the profile is such that you have got your play field orientation in this direction unfortunately the profile of the land is such in terms of Slope Analysis you have found that this is your orientation of the field, this will become negated reason is that east and the west when the sun is at a lower altitude and if they are at the lower altitude then they are likely to disturb the eyes of the players in this particular field.

So that is why you will find that whichever games are being played in the daylight those game at the linear access the longer access is generally not aligned with east, west they are

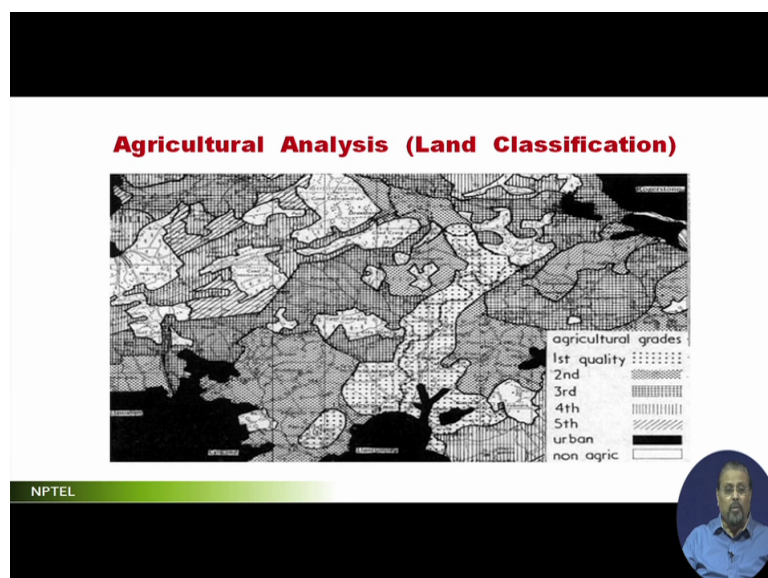
aligned with north, south. But argument is that ok at the south also you have the sun but only thing is the sun goes at a higher altitude. So it does not affect the eye or the visibility of the person never fears glare or anything because sun has gone to higher altitude. So if suppose you find that your sun direction is this but your profile of the land is this then this gets negated that is how the whole thing has to be worked.

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These are typical diagrams of the solar radiation and the wind directions and these are for architects and others you have done it very frequently.

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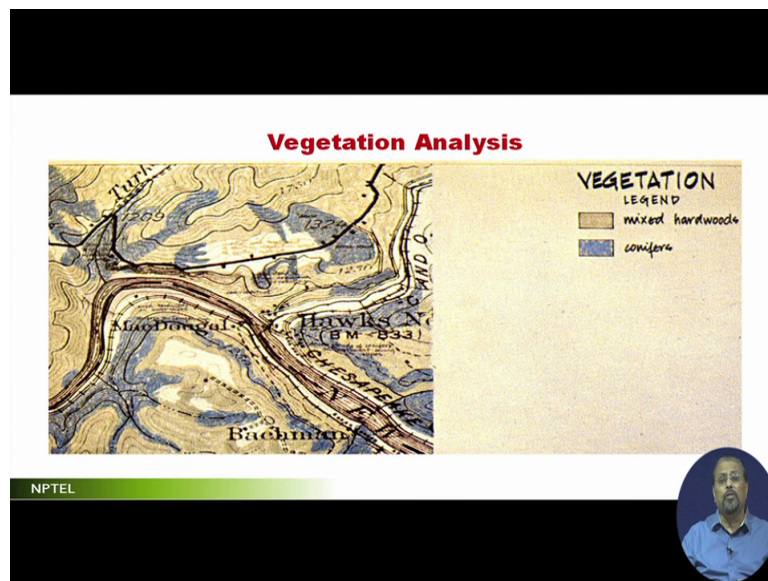
Few more analysis which I are important I will just conclude that, Agriculture Analysis, see landscape you are trying to create in an area which is already if it has the agriculture potential then should you be converting that agriculture potential to a landscape potential probably no, why I am saying probably no if you find that that particular potential is going to contrive to the agricultural revenue generated in such cases probably your suggestion as a landscapist to be that please do not disturb the agriculture lands because it is revenue earning, it has a strong potentials, strong fertility of the soil and the soil quality is good, humidity condition of the soil is also good.

So please do not disturb the agricultural land, this is one option one way of solving the problem. Another option of solving the problem is that you can always say that yes if it is of agriculture potential let us do one thing. Some of the areas I I extract or exploit the agriculture potential and for the agriculture potential I would go for revenue generating crop which is going to be a component in my landscape just like orchids.

If you recall that in the Cordoba Mosque example in the Spanish garden we have said that they have created a garden of Naranjos, they have created a garden for one reason the garden was mainly to provide shed to the people who came for the prayer but why had they converted this to a garden of Naranjos because they could have the soil quality is so good that they could have good Citrus (food) fruits and the whole garden is designed in such a way that it provide shed additionally the citrus fruits.

Similarly here if you find that the agriculture potential is so great that you can some of the portions you can always extract and exploit as orchids you can do that. So take that into consideration.

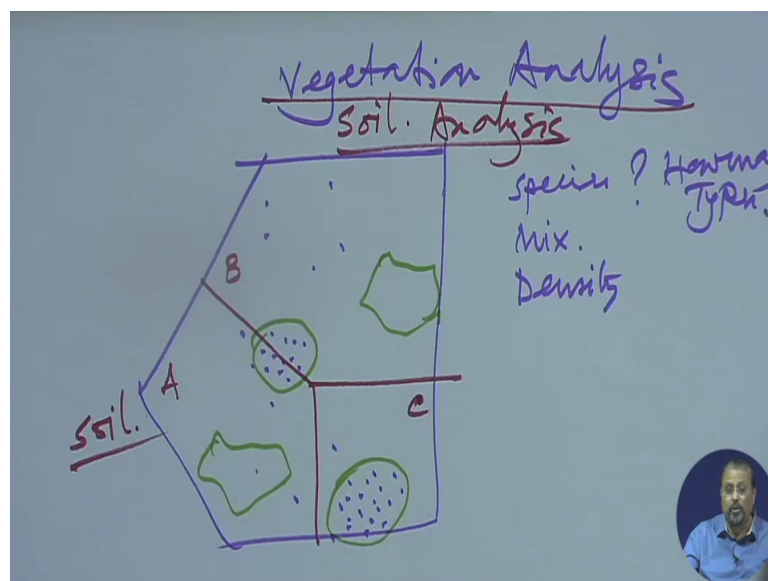
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The Vegetation Analysis is basically what you do let me explain, in the Vegetation Analysis you are trying to find out the Vegetative capability of the soil, so vegetative capability will be given with respect to the chemical properties of the soil.

This I will discuss when I will discuss about the land form more in detail I will discuss, here I am trying to say in the Vegetation Analysis you are trying to find out the vegetative capability of the soil, the chemical property of the soil and what is the density of the vegetation.

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For this you basically know what we do is what we try to find out in Vegetation Analysis is let me what you are supposed to find out I am again drawing a very arbitrary site very

arbitrary site in this suppose these are all plants and then all these are nothing but location of plants each of the plants located. What you are trying to find out what are the species, how many type of species are there how many types that you try to find out.

If there are more than one then what is the mix that means what is the proportion of mix, how are the clustered then (how are) how is the density how are they placed, ok and then you try to find out see if you have found out the density suppose in this if you take this particular area into our discussion then you find that the density of plantation is high density of plantation is high what about this blank.

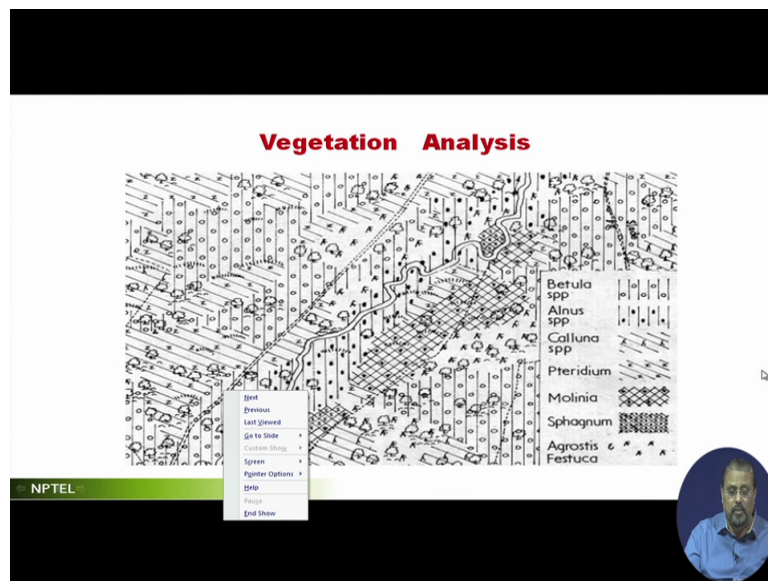
So your analysis is showing this is the area which is very potential for plantation, this is also potential for plantation as per existing. Now you will check the soil quality of this area and then you find out are they also suitable for vegetation, if they are try to find out zone that out and then you decide. In this you know one more analysis that comes in when I am saying the soil, you are trying to find out the vegetative capacity in terms of finding out the existing species, how many types of species mixing under density.

If suppose I say that you also check with respect to the soil quality then what you will do is you will try to find out and make a zone map of this in terms of soil quality, I am just giving you an example. Suppose you have found that this is the zone which is of soil type A, I am saying now with respect to soil, so basically I am clubbing the soil analysis and the vegetation analysis together but you have to do it independently and this is the soil type B and this is a soil type C.

Interestingly soil type A is suitable for some kind of species, soil type C is suitable for some other kind of species, soil type B may be suitable for the other species which are also going here, soil type B may be very neutral that it does not matter it can take any kind of species within. So basically now what you have done is in this you have done two analyses.

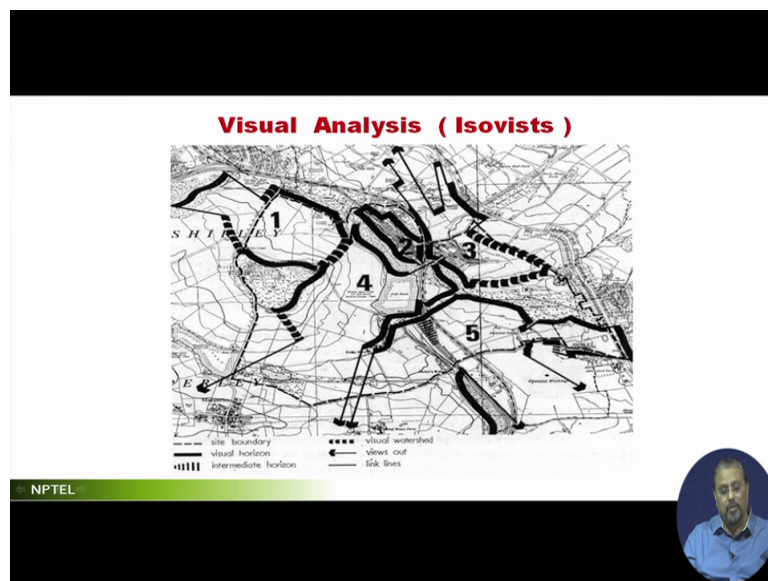
So here as you are doing Vegetation Analysis do a separate Soil Analysis and this Soil Analysis that you will be doing one is going to suffice with respect to vegetation another is going to suffice with respect to your strength of the soil and the decide, ok.

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After that this is another another this picture if you see here this is another representation of the vegetation, ok.

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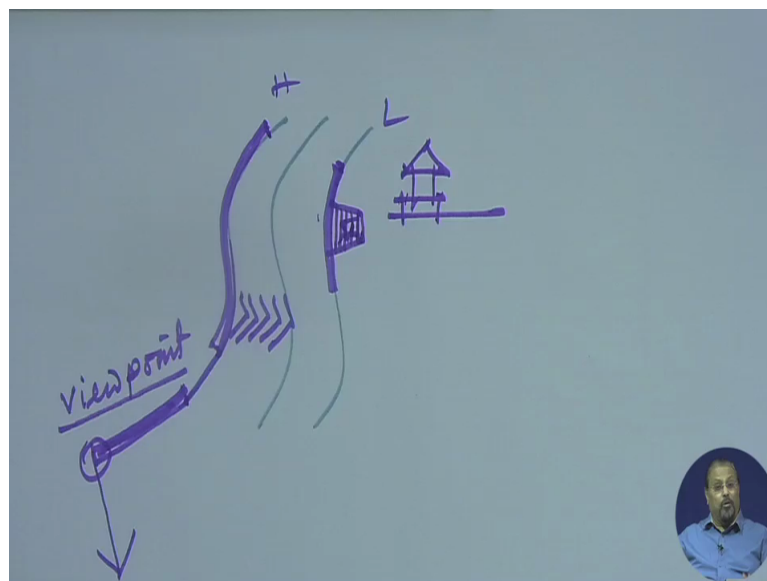


But I am coming to the end of it, very important analysis which you have almost done during Reconnaissance is the Visual Analysis let me explain this drawing very look at it very carefully, basically in the Visual Analysis you are trying to create a Isovisits not everything will be very clear but if you have a closer look you will definitely, if you blow it up you will see.

Basically what you are doing, you have multiple levels, different Contours and you are trying to find out along the edge how is the Visual potential outwardly or inwardly. For understanding this particular diagram you always try to visualize any hill station that you have visited, if you have visited a hill station and then you have walked along the hedges at the Contours try to retrieve that experience and then look at this particular drawing, but there are certain things which has to be recorded what can you see there is a thick line which is like this this thick line this thick line is called the visual horizon, visual horizon is when there are two Contours parallel going.

If you see that along walking along this particular Contour you have a good view, naturally if suppose if this is the Contour higher and then lower and then lower then naturally the good view comes on the lower hills. So if you find that in certain area this is the very strong potential you are getting.

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I will just show with respect to one sketch here, suppose you find that on this on this starting from here to this you have a good view potential downhill, this is high, this is low good view potential downhill if you travel from here to here at a same elevation and you still continue to see that particular good view then this particular stretch is called visual horizon which is in my this map, this this line thick line.

If you find that from here again the view potential starts but at the same Contour line this does not offer any view potential then there will be a thin line drawn and this will be called as link lines so visual horizon next visual horizon link to the link line. Now if you find at this

particular point when you if you step down from here to here you have the strong view potential outward and then you draw arrow like this, this is called visual watershed which is in this particular drawing if you see map this is the kind of thing, visual watershed, this is the kind of thing.

The arrow indicates in which direction the view is ok essentially in this Visual Analysis you have the visual horizon, you have the visual watershed, you have the link lines and also there is another thing look at this map, this particular point when you reach this particular point you stop and then you look outside and you get a view out, ok. Now let me draw from here you have a view out, this this particular point is called view point.

Now do you recall any hill station that you have gone to you have seen this is something called view point and you travel all the way along this particular line to come to this particular view point to see this and you did not stop anywhere else but came to this particular point so wherever there is a view out at this particular point is called the view point, ok.

Now that makes it very very clear very you know you have the site boundary look at this map now, I am again relating this, you have a site boundary naturally any drawing that you will have, ok then you have the visual horizon, you have the visual (inte) ok intermediate horizon I will tell you but you have the visual watershed, you have the views out and you have the link lines.

What is intermediate horizon, in case you find that there is a place let me draw here in this follow this, if suppose you have found that this is the visual horizon and suddenly at this point you have a zone which is at the same level it can happen and then this is the intermediate horizon that means at the same level you can come here, these are the points where generally in the hill station you will find there are sit outs or gazebos people make it.

That you come to this particular point there is a gazebo here you sit at this particular point and you see the sunset, sunrise or the hills and other things. This is Visual Analysis in fact you will find when you will do the Reconnaissance survey your Visual Analysis generates at that time only and you start recording all these things.

And the last thing that will now remain in our this particular analysis is the Laws and Regulations, what you do is if you follow all these analysis one after another how do you correlate collect each analysis is independent for with respect to the different functions. Now

you super impose all these one after another and whichever function you find has satisfied the maximum number of analytical position in this analysis that earns the point and that is the point at which it gets the location fixed, ok.

So that means if I see the overhead tank location with respect to all analysis is coming at the same point then that is the overhead tank location. If you find that in one analysis the cottages the best located here, in another analysis the cottages the best located is here. Now you are trying to weight that which one gets the best benefit may be slope vice this is better, but the thing is sunshine was this is better and sunshine is more important than the slope because in slope time you negotiate it then this one wins the race and this gets selected.

This is how the whole thing is very very analytically can be done. If I try to conclude this particular discussion, you know if you see during the Site Analysis and Appraisal you have fairly taken intermediate decisions and say I would say tentative decisions. But when you really try to detail out the whole thing you will find that 50 percent of your decisions are done at the analysis level itself.

When you have made the Appraisal and made the Check List and design criteria 50 percent of the design decision you have taken after this if somebody takes it up we only details it out, try it yourself you will realize this, ok. Now I will put one disclaimer on this, do we every time start with all these detail analysis before you go into it, mind it all analysis that you have done so far whether it is landscape, design or your personal decisions you have gone through a process only thing is you have never recorded, you have not done it sequentially neither you have recorded.

So to save this process let me ensure one thing, this is the process which I have theoretically and very systematically explained to you, even if this were not given to you if you make a landscape plan you will find that you have been doing the same thing at the back of your mind but not to the process.

So my suggestion is when you are doing a very technical professional work do by process, follow the process I hope you have understood what I have tried to communicate to you please go through it in detail, study more, ask me more questions through forum so that I can clarify in case you have any (44:25) of doubt in your mind, enjoy the course thank you very much.