

Culturally Responsive Built Environments
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Lecture – 19
Understanding the Cultural Context in Disasters and Development

Welcome to the course: Culturally Responsive Built Environments. Today, we are going to talk in the series of culture and risk, and we are going to discuss about Understanding the Cultural Context in Disasters and Development. So, in the culture and risk series, we did talk about my own work of in a tsunami reconstruction areas in Tamil Nadu, and also the theoretical component of the relation about culture, disasters and development and vulnerability.

And in the 3rd lecture, we did talk about the cultural heritage re-assembled. So, in the relocation context, in the resettlement processes, what are the various issues and the theoretical aspects of it. So, here I am going to bring to you, especially because we are talking about the from the cultural domain, we are going to talk about an important contribution on the cultural discourse that is from the Paul Oliver's work of 'Built to Meet Needs: Cultural Issues in Vernacular Architecture'.

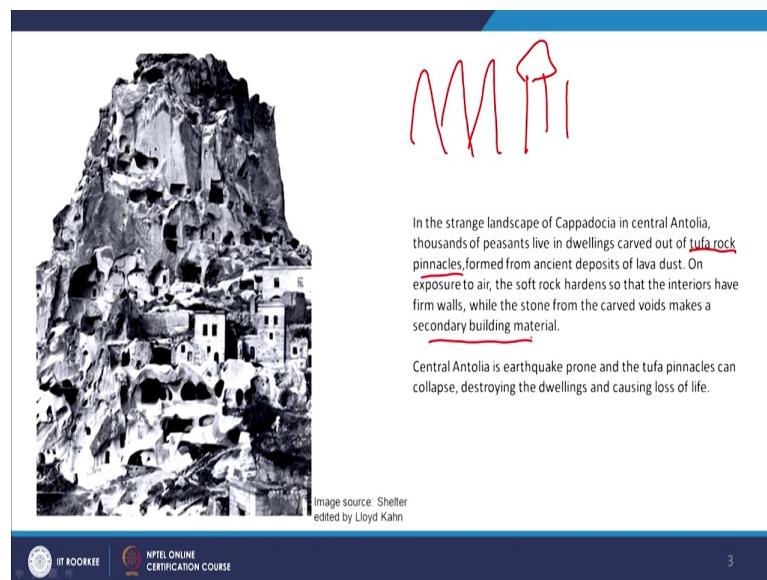
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So, in this I am touching upon part IV, cultures, disasters, and dwellings. So, in fact, it covers a wide range of understanding, but in parallel to it, I am also bringing my own

ongoing work of Hudhud cyclone affected areas, and as well as apart from what Paul have described his work. So, I am giving and little addition to it what is the current status from various other resources. So, of the same cases, how various other resources also talked about the same thing, in a different way.

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In the strange landscape of Cappadocia in central Antolia, thousands of peasants live in dwellings carved out of tufa rock pinnacles, formed from ancient deposits of lava dust. On exposure to air, the soft rock hardens so that the interiors have firm walls, while the stone from the carved voids makes a secondary building material.

Central Antolia is earthquake prone and the tufa pinnacles can collapse, destroying the dwellings and causing loss of life.

Image source: Shelter
edited by Lloyd Kahn


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So, when we talk about geomorphology, especially how the changes and how the conditions of the geographical conditions is an asset for the habitat evolution. So, one of the important place, which we should talk is the Cappadocia; and it is in the central Antolian region of Turkey, and where there are thousands of peasants live in dwellings carved out of its called tufa rock pinnacles.

So, mostly will have a pinnacles like this, some even like this, and which are actually form from ancient deposits of lava dust, so because they are exposed to the air and the soft rock, because being when the lava got deposited and the soft rock hardens, so that the interiors have firm walls, stone from the carved voids makes a secondary building material.

So, in fact this particular Antolian region is an earthquake prone, and the tufa pinnacles can collapse, destroying the dwellings and causing the loss of life. So, what you can see is a picture from the Shelter, and where in Paul Oliver's contribution was mentioned.

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Cavusin village (Old Greek town)

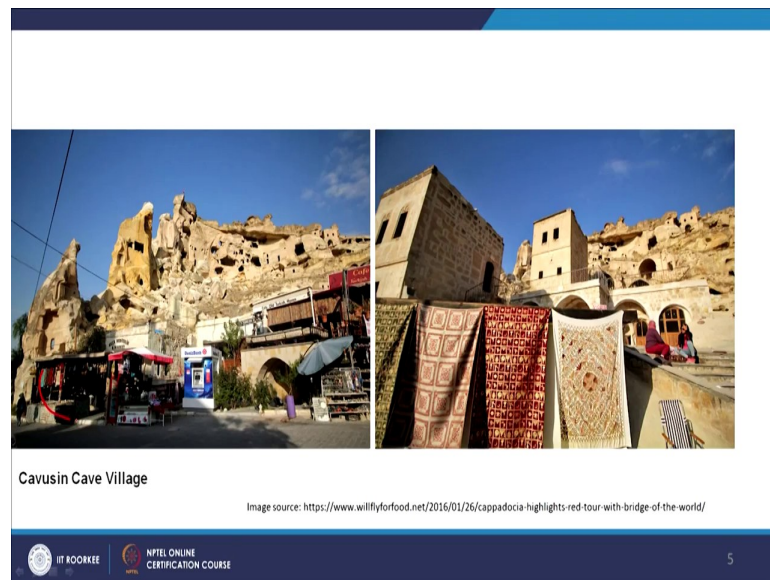
Cavusin is 4 km away from Goreme-Avanos road. Basically houses surround a mountain like massive rock. It is all messed up as a result of the erosion of the rocks over time and earthquakes.

Image source: <http://www.freelancetravelturkey.com/tr/turkiye/11/cappadocia/cavusin-village---old-greek-town-.html>

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So, in the same aspect Paul touches upon Cavusin village, so old Greek town, where which is about 4 kilometers from Goreme Avanos road. So, in fact this is the huge massive rock, and the dwellings you can see a part of dwellings embedded within it. And this whole thing has been got messed up, as a result of the erosion of rocks, because in time, due to the exposure to the air and wind. So, obviously, the rocks are getting eroded and also due to earthquakes, many of them are collapse what you can see is a rubble here, what you can see is a part of rubbles, which are falling down day by day. So, it is also a continuous tremors earthquake being in earthquake zone. So, obvious is lot of damage in this area.

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So, despite of this earthquake, and like 1960s or 70s and people started you know building on nearby itself, because that is where the municipalities agencies have really bang their head why you are why do you want to live there, because it is already you have seen a destruction, we have already face, you know enough of problems, but why you try to settle there like what you can say here is the new after the recovery you how the cave cafes, and the dwelling have been built up.

So, what was surprising here is how and why the people have denied the safe location somewhere far away, and why they have tried to settle down here. So, this actually shows you know how the people's attachments to their ancestral land, the tenure aspects of it, and their lifestyle, and how they can also take this as you know settlement process.

So, today if you look at it you know this whole new additions into this old fabric is a times it looks a kind of interference in that fabric, but it was a people's decision to go back and settle their itself that is where there deep roots, you know where their family roots or where their neighborhood roots. And you know, this is not just only the surface fabric which they were thinking of, but their emotional understanding of the place.

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In 1968, a violent earthquake destroyed a vast area of western Sicily, leaving about 100,000 people homeless. The small city of Gibellina, one of the most affected places in the Belice Valley, was razed to the ground, and its community of shepherds and farm labourers relocated to temporary tent camps.

Source: <https://failedarchitecture.com/village-life-persists-in-sicily-empty-utopian-artspace/>

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And similarly in 1968, this in Sicily is called the Gibellina, a small city of Gibellina, which was most affected places in the Belice Valley. And may lot of damage have occurred, and almost 100,000 people the homeless; so, and this community, basically the community of shepherds and farm labourers and those who have relocated to the temporary tent campuses.

So, what you can see is this mountains behind and you can see the damaged houses here, and some houses which are left abandoned. So, this is whole story of Gibellina. And why this is a very interesting stories, you have to see how people have rebuilt it, and what are the consequences of the rebuilt process.

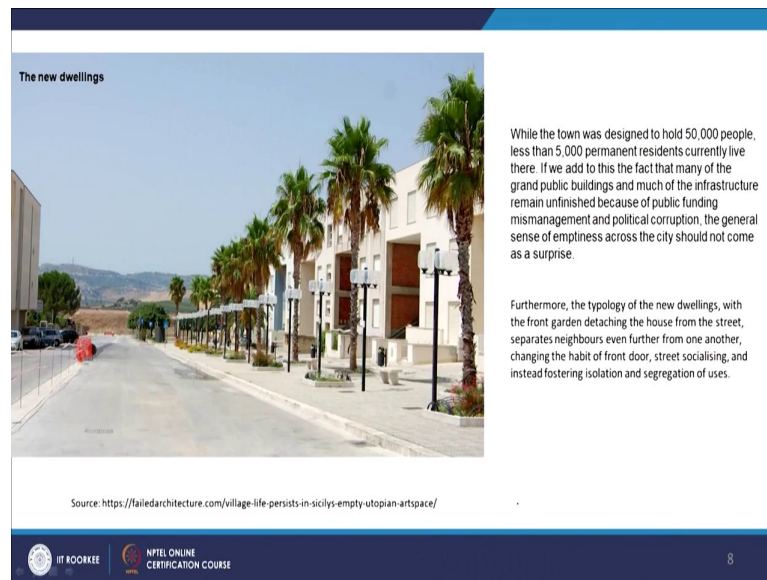
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So, after the earthquake, the Mayor Corra that time Mayor Corra, he have developed an idea you disasters as an agents of change, you know, disaster should be an opportunity, and how to take it forward. So, in fact is idea was to promote the cultural renaissance, which is a kind of rebirth through the urban reconstruction of Gibellina. So, this project actually has been conceived as a showcase of modernity, and it also is a kind of role model, which has to be a symbol of emancipation for a region, so that you know everyone can take lessons from it, and take a role model as this particular approach, and follow a point that was the idea behind it.

And they have involved lot of artist, architects, and also the lot of intellectuals from all around over Italy have come to say that say and it become a kind of laboratory of ideas on new forms of urban living. And what you can see here is you know kind of auditorium, the cathedral and the plazas, which of the massive scale and heavy investment of concrete, it is almost like a kind of concrete jungle, so that is how it has been framed.

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The new dwellings

While the town was designed to hold 50,000 people, less than 5,000 permanent residents currently live there. If we add to this the fact that many of the grand public buildings and much of the infrastructure remain unfinished because of public funding mismanagement and political corruption, the general sense of emptiness across the city should not come as a surprise.

Furthermore, the typology of the new dwellings, with the front garden detaching the house from the street, separates neighbours even further from one another, changing the habit of front door, street socialising, and instead fostering isolation and segregation of uses.

Source: <https://failedarchitecture.com/village-life-persists-in-sicily-empty-utopian-artspace/>

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But similarly, you can see the new dwellings. So, they have oversized it, and in fact, the town was designed to hold 50,000 people, and now it is like only 5,000, less than 5,000 people only reside, so that actually shows you know the over estimation of the actual requirement, so that has contributed to almost an empty silent scenario.

So, many of the grand public buildings in much of the infrastructure remain unfinished, because of public funding mismanagement and political corruption. So, this because though in the initial level plan, you want to start this kind public building, the auditoriums, any many other things, but then because that also has to pull up money, you know, in the process.

So, the lot of other issues, the mismanagement of public funding, and the political corruption is all added together, so many of the buildings have been unfinished. And that actually left many of the whole environmental kind of abandoned buildings here and there, or unfinished buildings. So, the whole land has been almost full.

So, what you can see is this dwellings, the typology of new dwelling, with the front garden detaching the house from the street, and it is looks a very scenic atmosphere as we see in the European cultures, we have this segregated street and long width at the pathway, and then the dwelling, the fronts and backs.


So, but in this process access attaching the neighbors, you know one neighbor to another neighbor, and the changing the habit of front door, street socializing, because you know in a Italian culture is very much social. The Mediterranean cultures, they celebrate the life much in the verandas, in the open spaces having a cup of tea, having you know various social activities would. But, what you can see in this photograph is absolutely added facades, no one is your, you are not able to see anyone, and as a kind of isolation and segregation of uses.

And in this whole process what they thought first bringing art, because art as one of the tool, how we can we regenerate these all at know you know these distractions. And because they want to come out of it, and have to regenerate the life of the people, so that is with the applied so they many of the children have painted on the walls of about the memories of the earthquake or the destruction. So, Paul was wondering why they are actually trying to bring back those memories, which no one would like to see that or no one like to think about it.

So, the people, but there was an art teacher and how he have helped them in the community, and that is where when we portrait all these, so that people are engaged in it, people are trying to bring back the memories that is how they want to you know encourage the youth. So, as so that they can overcome into it at the same time reflect the past, and the they know the past as well.

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Hidden and abandoned sculptures.



Few locals understood the connection between the artwork and the reconstruction of the city, despite the fact that artists and inhabitants closely collaborated in their realisation.

The attempt to initiate a participatory process remained limited to the passive involvement of the population in workshops and activities, organised by the artists. Indeed, rather than fostering active engagement for the co-creation of the artistic landscape and the city, the institutions washed their hands of their responsibilities, leaving the artists to try to fill the gap.


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So, there are many reasons, but in the same process, they developed some kind of sculptures, many interesting artwork has been established, but unfortunately, very few locals understood the connection between artwork and the reconstruction of the city and despite of the fact that artist and inhabitants closely collaborated in their realization. So, it was an idea; yes, the art work is going to help in the help them that get into kind of creative models of living, but unfortunately, very few locals have understood that connection.

And what you can see is this whole process, because much of the engagement into art work, community engagement, that actually the idea used to participate the local community, encourage the participatory process, and that has been remained limited to passive involvement of the population in workshops, and organized by the artist. So, in the process what happened was the institutions washed their hands off their responsibilities, leaving the artist to try to fill the gap. So, in the process you know the supporting institutions, they try to come out of it and then, so that the artist can fill the gap.

So, this whole process what happened is the sometime the location of these artistic work, and as well as the maintenance of it, some of the funding issues, so all together jumbled and what you can see is it is, in fact the some of the art works are abandoned and sometimes it becomes a hindrance also.

The Cretto by Alberto Burri.



The Cretto, by artist Alberto Burri, spans 12 hectares of concrete cast covering the ruins of the old city. The blocks, just over one meter in height, occupy the areas where buildings once were. The trace of the street network is preserved for people to walk and navigate through the sculpture. The intention is clear: giving a spatial dimension to the collective memory of the old city, turning a place of devastation and pain into a work of art.

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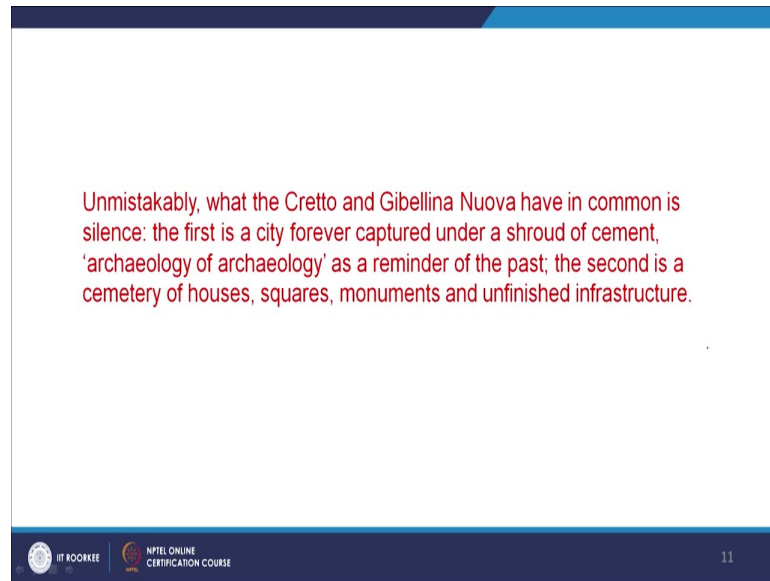
So, another important work which I would like to bring here is the Cretto by Alberto Burri. So, this was the site, what you can see is a kind of junks of concrete about 1 meter height junks of concrete lied on it, but it is actually spans about 12 hectares of concrete cast covering the ruins of the old city. So, in order to cover the ruins of the old city, what they did was the artist have developed a kind of concrete structures about 1 meter height.

And what you can see here is a kind of passages of the existing passages. So, in fact where these blocks were basically the areas with buildings once were, and the trace of the street network is preserved for people to walk and navigate through the sculpture. So, this, itself, becomes a kind of artwork. And these are actually the spaces of the passages, so that you know one can understand. And so, they have, it is a kind of giving the spatial dimension to the collective memory, because the whole city have seen a destruction, a mass destruction, and that is where this is a kind of collective memory turning into a place of devastation and plan into a work of art.

So, in that way, if you are talking about 12 hectares of concrete; so, maybe if you are talking about the time of 1970s, that is where the concrete constructions are of booming up and maybe the ideas are flown like this. But, today if you if you talk in the green sense of it, but you are actually covering the 12 hectares of land with concrete, so which will be a mass, I mean that is where you know the art thinking, and as well as the green thinking also could relate somewhere.

Now, if there is any better alternative, even with using minimalistic concrete and as well as some kind of green infrastructure, if today is that kind of scenario works that is where we have to think both from the environmental aspect of it, until the cultural aspect of it, and the historical aspect of it.

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So, unmistakably, what the Cretto and Gibellina Nuova have common is silence, in both the things. What you say is the silence, there is not many people around, there is no voice, there is no active life. So, the first is a city forever captured under a shroud of cement, archaeology of archaeology as a reminder a reminder of the past and the second is a symmetry of houses, squares, monuments and unfinished infrastructure that is where the blog which I collected all these photographs talks about. So, in both the cases, there are almost vast infrastructure, but absolutely silence, not much of active life.

So, there is always in this kind of situations, what is the future of this kind of places is there is always a good scope of urban design, and how we can activate these places through regenerative programs, through redevelopment schemes. And so, when we talk about I mean, this kind of rebuilding, and with a very overhyped positive ideas of rebuilding with massive investments, and with a very modernistic visions. Sometimes, they do flop in the way we discussed in terms of Gibellina and as well as in Antolia, you know how they rejected these houses.

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There is never just one cultural context for the providing of shelter following a disaster -there are always at least two.
They are just distinct:

- the haves and have-nots,
- the powerful and the powerless,
- the relief organizations and the victims of disaster.

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So, when we talk about the cultural context, first of all, we always talk about it was only one, but there are at least two components in it. One is the haves and the have-nots, the powerful and the powerless, the relief organizations who comes to support and the victims who are the beneficiaries. So, these are the three, they are just distinct you know they are quite opposite; and one have and one have not, and one powerful and one powerless, the same thing one who support someone who takes it.

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Allen Barton's (1969) perceives disasters as part of the larger category of 'collective stress situations' which occur when many members of a social system fail to receive expected conditions of life from that system'.

During the relief operation, the traditional, local systems of organization are likely to be rejected in favour of the systems familiar to and exercised by the relief culture.

A victim culture is made aware of the failure of local, traditional, indigenous systems to either anticipate the disaster or be able to cope with it when it happens.

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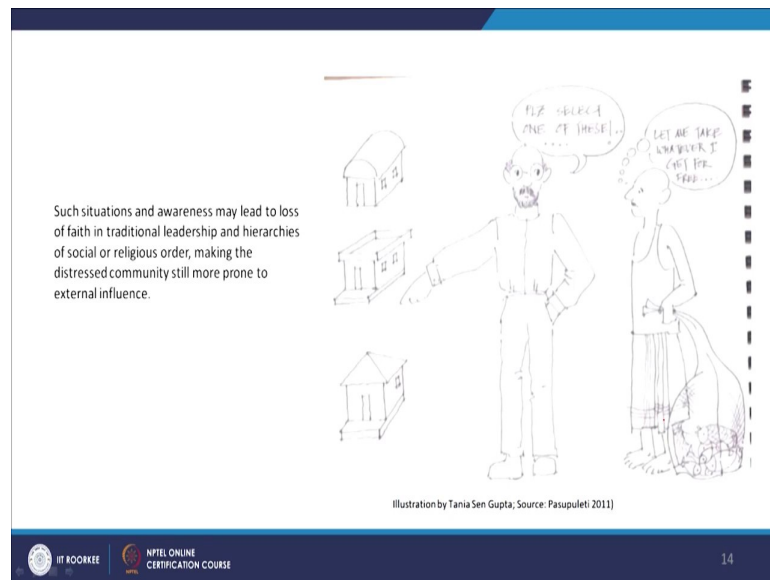
So, Paul brings in Barton's perception of how disasters as a part of the larger category of collective stress situations. When we call about collective stress situations that actually brings back to the external issues, and which occur when many members of social system fail to receive expected conditions of life from that system, so which talks about the internal disorganization of the society, and how the management systems.

So, during the relief operation, normally what happens, there is a very immediate need of getting a shelter, getting a food, getting a livelihood or getting the immediate health facilities, you know health support systems. So, most of the relief organizations like Oxform, World vision, any other NGOs, who come forward to help these effected communities for the benefit. So that is where when the conduct these operations, most likely the traditional and local systems of organization, they are most likely to be rejected in the favor of the systems familiar to and exercise by relief culture.

Because you know when we talk about the agencies, they talk about the fast track methods, immediate result, because they are on contract you know that they are for 6 months, 1 year and or max is 2 years. So, they have a different strategies to help them, and the material contractors how fast track material procurement systems. So, the whole culture of the relief operations is very different.

And when they are made aware of this kind of different materials, different technical inputs, different aspects of the relief cultures. And that is where the victim culture is made aware of this, and failure of because they were in the disaster situation, and that is where this victim cultures are made aware of the failure of local, traditional, indigenous system to either anticipate the disaster or to be able to cope with it, when it happens. So, you know that is the clear evidence that you know when they are in that phase, so obviously, that lacks that takes away the confidence in them, how their system is unable to cope up with that.

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And this whole processes is the two way process; one is the external support shows influencing the internal aspect, and the internal supports gradually you know they are also diluting their own system. And that is where we can see, you know, people tend to lose the faith in the traditional leadership, and hierarchies of social and religious order, making the distressed community still more prone to external influence, so that is why the moment you are losing faith in your systems, you are becoming more prone to the external influence.

So, that is why is a small cartoon of one of my colleague Tania, where she helped me in my own work. She talks about where the professionals comes from different cities and towns to help them, and even somewhere from different countries, and then there is this is the alternatives you have, but there are poor fisher man is unable to you know decide on what because you only feels that whatever the better at this point of time, it supports me. So, he never understand that realizes that this is may not be suitable for me or this may be suitable for me. So, he just take let me take whatever I get for free, you know that person is helpless condition.

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CYCLONE HUDHUD
Joint Rapid Needs Assessment Report
Andhra Pradesh
12-19 October 2014

**MEMORANDUM
ON
VERY SEVERE CYCLONIC STORM
'HUDHUD'
(11th - 13th OCTOBER 2014)**

**GOVERNMENT OF ANDHRA PRADESH
REVENUE (DISASTER MANAGEMENT) DEPARTMENT
NOVEMBER - 2014**

LOSS OF LIFE & PROPERTY

Due to Cyclone and high speed gale winds, the following losses/damages were caused (Annexure - 4):

- Total No of Deaths affected : 4
- Total No of Maimed affected : 138 (Severely - 52, Partially - 86)
- Population affected : 92,77 Lakhs
- Total No. of villages affected : 7285 (Severely 1148, Partially - 5831 & inundated 206)
- No. of people evacuated : 22,960
- Human Lives : 41
- No. of Persons injured : 182
- Total Cropped area affected : 3.30 lakh ha
- Estimated crop loss : Rs. 2287 crores
- Area with more than 50% crop damage : 3.26 lakh ha
- Replacement of fish damaged Fish Carts : 814
- Stead Structures, Rickshaws, Replacement of fully damaged Rickshaws : 3625
- No of Auto Rickshaws damaged : 150

House Damages

- Total no. of houses damaged : 20873
- Fully damaged (pucca+kutcha) houses : 2470
- Severely damaged (pucca+Kutcha) houses : 11087
- Partially damaged (pucca + kutcha) houses : 16316
- No. of huts damaged : 49363
- No. of Cattle sheds : 1,150
- Estimated value of damaged houses : Rs. 1236.32 crores (including commercial organizations and houses belonging to AP)

Animal Mortality

- No. of Live Stock Lost : 1406
- Big animals : 468
- Small animals : 468
- Poultry : 468, 14,206

They can only be concerned with the surface structures of society and such structures are further compromised when they are reduced to statistical terms.

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And when we take about any accountability of the damage after the disaster, for instance of I am just showing you a small example of Hudhud cyclone in 2014 near Visakhapatnam in coastal, east coast of India, so that is where when the agencies come, and they calculate how many districts affected, how many houses have been affected, how many roads have been affected. So, these are basically the surface structures of the society. So, and mainly what happens is that is much more worse, when actually these surface structures in the society are further compromise, and then they reduce the numbers statistical terms, they only say this 88 houses in the Kovalam case in the previous lecture we talked about, in 88 houses have been damaged. So, the government gives only 88, so which means that actually marginalises the way of thinking, what how we can build back better.

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So, in the same Visakhapatnam area in the Bimilipatnam village, and we could see the traditional house, because of the coastal just in front of the sea the Bay of Bengal. We can see the kind of the traditional herds with the low eaves, in order to protect them from the cyclonic, and the heavy winds, and how even they put the net on it, so that even if the of the heavy winds come, how it can still protect without the the roof does not fly as well as you know.

But, what you can see here is a new constructions, even the yes, they given a toilet or a kitchen or something like that, but you can see here the whole water is just left over there, so which means it is again resulting to the vulnerable conditions, again the there was some village, which I have not there I cannot remember, but then in 1980s if the scheme of housing. So, people the government have built housing for that. And after few years, then some people, some agencies came and they lay the road. And after few years, some people provided the water supply, and after very recently and the Swachh Bharat mission, there again forwarded the toilets, but the surprising thing for me was in every house was written contract for septic tank, so and so number. I was wondering what happened, because they provided the toilets with the septic tank connections or the pits were not connected properly, so obviously it becomes into a private contract.

And now, with all these layers of refurbishing you know one side the house after house, then after 10 years is the road, and after 5 years there was a water, and then after that 5

years there is sanitary systems. So, in all together the whole network of drainage pattern has been ignored. So, the today if you go to that village, full of mosquitoes and people are unable to survive properly. So, this is where the coordination between agencies and the schemes does not collaborate with each other.

So, and one of the important aspect which we commonly with the abandonment of these houses, because on the immediate impact of the disaster, obviously the implication of coastal regulation zones or any other regulations, people tend to move away. But, what happens to these old buildings, who takes care of the rubble, what how it is made because that whole things talk about the fabric and the memory of that place, and how one can think about. Neither the panchayat can thinks over it or any other agency, because their job was done.

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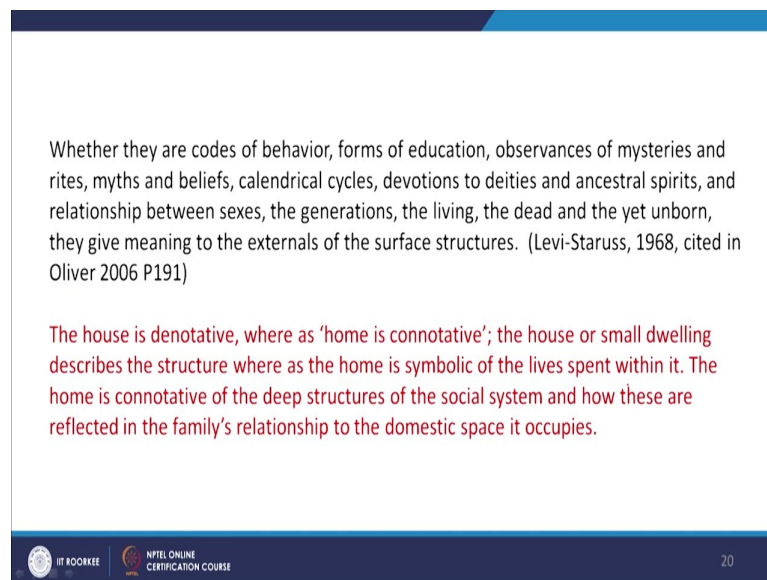


So, what you can see is a photograph, which was again in Hudhud area. So, the government that time, they have given for the people who have got houses, they have given about 5,000 rupees for their repair of the house, but I will show the same photograph how many people live in this house is about three families, and an elder mother lives in this house even today.

So, this shows that what the government schemes we are talk about giving a financial support just 5,000 rupees, which has nothing, not even supported to cover their roof. And still how people are able to still live in those houses, and in the rainy seasons, they try to

borrow some space from the neighborhood well built houses, and then they sleep that is how with a good relationships within the neighborhood locality, they're able to survive. So, all these dynamic and underlying structures, how people operate. And so these things one has to understand.

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So, that is where we talk about various codes of behavior, codes of behavior, forms of education, observances of mysteries and rites, myths and beliefs, calendrical cycles, devotions to deities, ancestral spirits, and relationship between gender and sex, the generations, the living, the dead and yet unborn, they give meaning to the external soft surface structures.

But, what we have to understand is a deep structures, because the house is just a physical form, it is a denotative, whereas the home is a connotative. The house of small dwelling describes the structure, whereas the home is symbolic of the lives spent within it. The home is connotative to the deep structures of the social system, and how these are reflected in the family's relationship to the domestic space, it occupies.

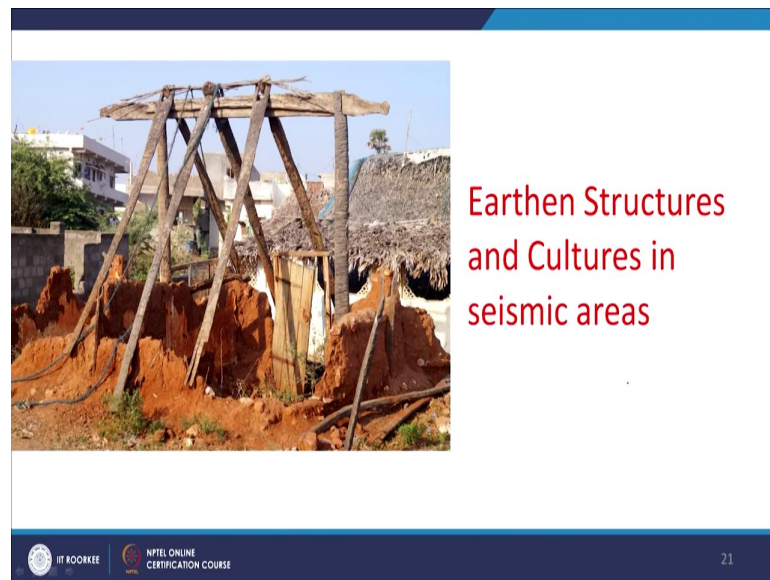
So, what when we are talking about understanding the cultural context, we are only assessing the surface structures: is it a building, is there material, where it was damaged, and how it was damaged, how much we have to pay him that is only mechanism, but how we can enrich the deep structure, how we can consider these.

In fact, once I was in the Switzerland, the conference in ideas in Davos and I met a member from Pak one of the Pakistan agency, and there was the dog training workshop conducted, and then within that the they what the agency have demonstrated was how dogs can be trained, so that they can go into the debris and collect show a way for the rescue team, so that if there is any, you know people alive or dead, it can get hold of that. But then, immediately one of the lady said I will according to our culture we do not allow dogs to with us, but we do not mind dying, but I do not want a dog to come in search of me inside my house.

So, look at the kind of the way different cultures of pursuing about different ideas of rescue, so that is where the big gap, you know some people are ready to die, but you know how you can actually made aware of these things, and how we can interface in between. So, this is what one has to think about from the cultural context. So, even the small belief system is hindering the development.

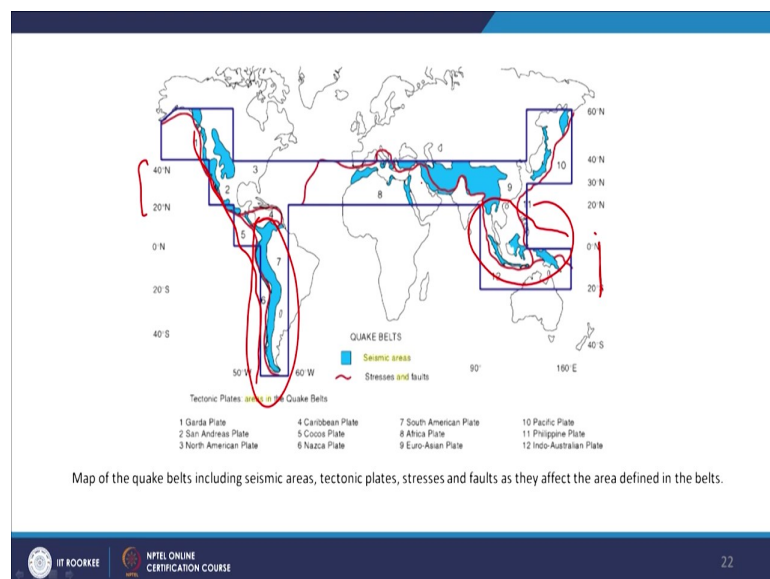
In fact, when we talk about disasters and development, this was the same period, before that, in 1980s when Frederick Cuny have developed this idea of disasters and development, which he brought the connections between the disasters in development. Whereas, before when the disaster happened, the rescue team or relief team go on and they do their work, so which means which was completely disconnected from the what actually it was: the development. So, the usual development process and the after the disaster, how the rescue and relief operations work. So, they are very much disconnected in terms of their temporal nature, in terms of their financial instrument, in terms of their legality of it. But, what Fredrick Cuny talks is yes, there is a indigenous way of vulnerabilities, and which is existing system which makes them prone to this particular condition, so which means, the development we have to go back and look at what is existing development scenario.

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So, he also talks about how the macro level understanding also helps in the decision-making of micro level decision-making. So, in fact and with the next chapter he talks about the Earthen structures, and Cultures in seismic areas.

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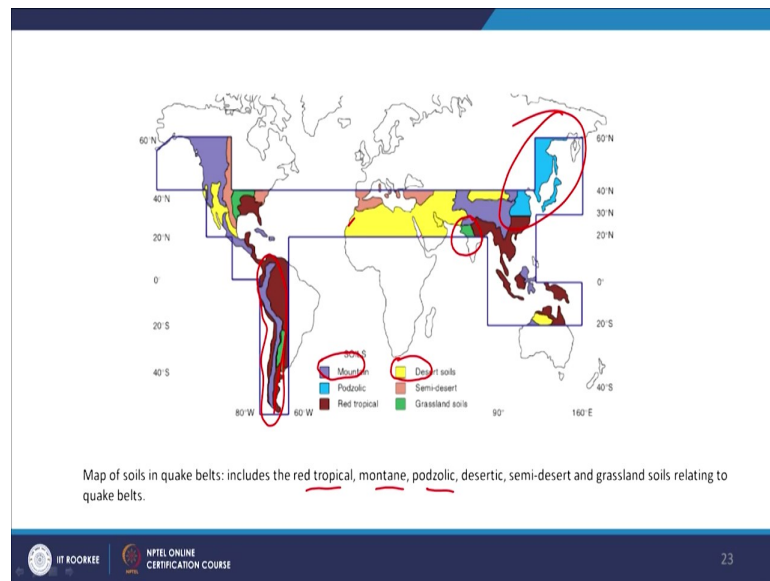


So, he develops and mapping techniques, what you can see is basically you can see the fault lane fault lane, which if the measure of this along the fault lane, what you can see is from 20 degrees north of latitude in the northern hemisphere, and 40 degrees. And

whereas, in longitudinal, you can see from the Peru and the South American, whereas in the Malaysia, and this places you can see from 0 to 20 from the equator all sides.

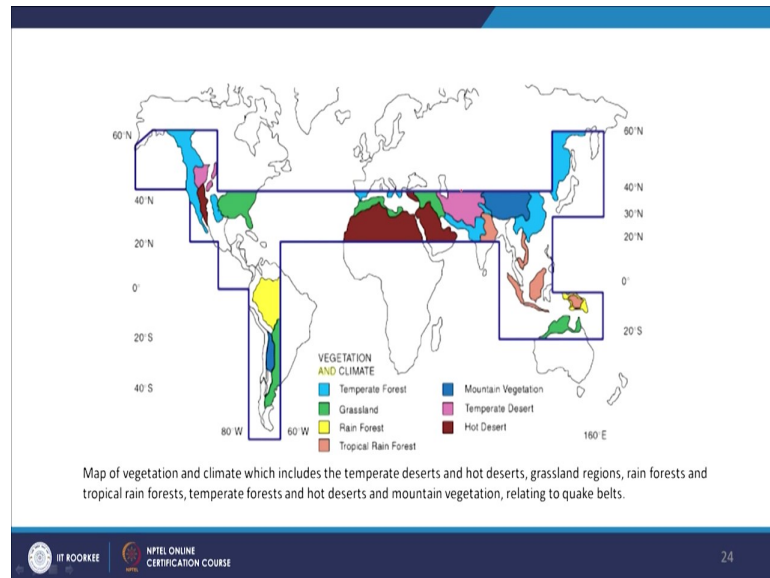
So, and this is how the seismic areas are mapped along with the fault line. And you can see the tectonic plates, the stresses, and the faults, and how they are defined, how they're geographically mapped. But, one can actually notice you know how our different mapping tools can actually relate to one set of data to another set of data.

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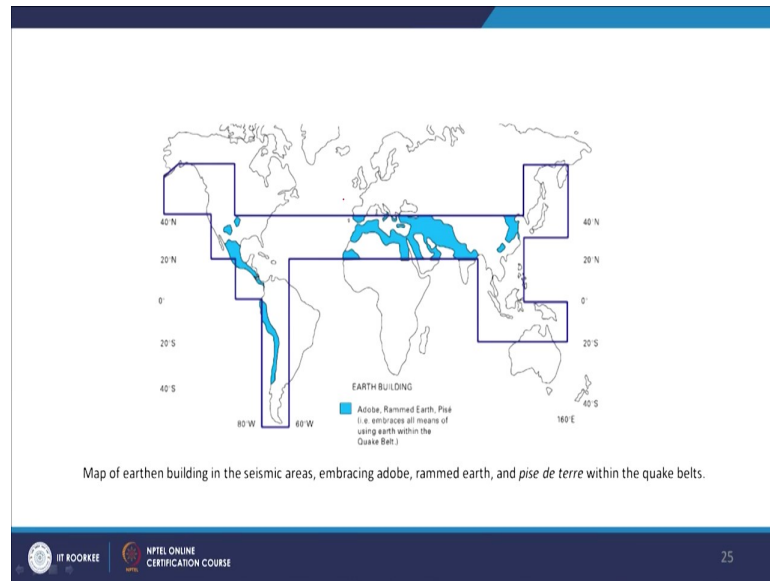
So, what you can see most of the earthquakes do happen in mountain area, and also in a kind of desert soils. So, what you can see here is the mountain area, it is a map, which is showing the type of soils, which is the red tropical, the montane, the podzolic, which is basically a kind of fertile, the low valley civilization, which is much more fertile soils, and the desertic, and semi-desert and grasslands. So, you can see the Banni grasslands in the Kutch area; so, in fact most of the earthquakes to occur in these kind of region, where you have the Northern African and as well as the Middle Eastern part of it.

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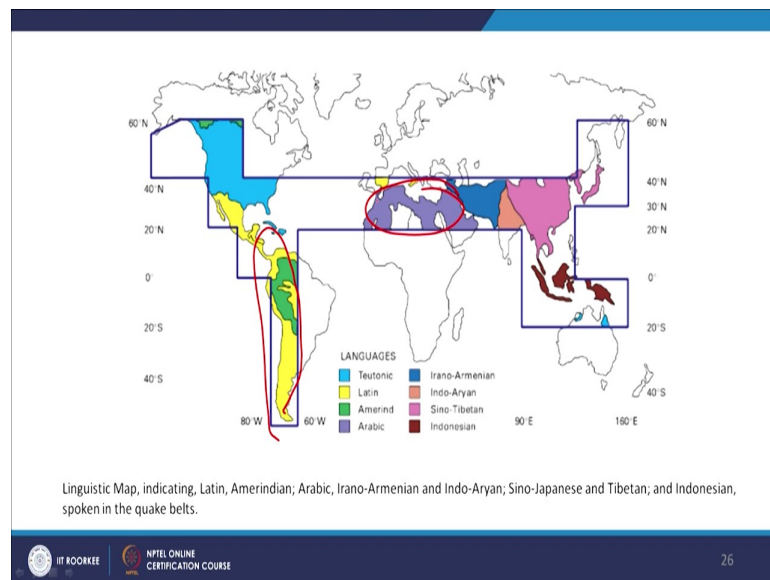
And similarly, if we map to the vegetation site of it, and the kind of nature of natural vegetation, it talks about a temperate deserts, hot deserts, grasslands, rain forest. And what you can see here is the kind of hot deserts and so, now again you have the mountain vegetation here. So, if you then lot of overlap in what we can see from the nature of soils, to the type of vegetation, and the types of disaster. And if you look at the overall earthen buildings you know the adobe reconstructions, which are not burnt. And that you can see in these areas actually, where we can find in China part of Mexico, and part of Peru in the most of the African and the Middle Eastern belt, in the Northwest of India and Pakistan.

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Now, for any culture you know language plays an important role. So, if you look at, if you map the dominant languages into it, and that is where the Latin American languages and you can see the Amerindian, and you can see the Arabic.

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But what it what this map talks is the most of the people who are hit by the earthquakes is the Muslim, because if you look in the overlays of all the maps in terms of the montane soil, in terms of the desert soil, in terms of the vegetation, in term. So, and if so, this is most of the in the Arab culture, and especially in the Iran, where Iran and even the

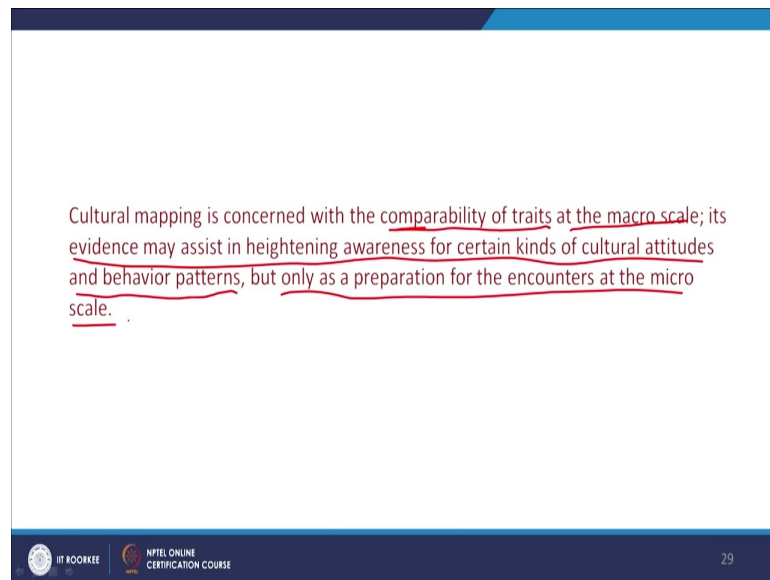
Northern African belt that is where you can see in the Pakistan, Irano-Armenian side of it. You can see that is where most of the communities, which means it is talking of the target group of the based on the linguistic analysis, one can even see the relate of that data to this data.

And similarly, the religion when you talk about the language, but the religion is much more even focus determinant of one of the culture. So, the moment you map of the religion, you can see again the Muslim, which is again majorly hit, so which is again lying in that fault area. So, so in what this whole process is talking is mapping is an important tool, the cultural mapping especially the GM Wundrock, the world atlas you know how he prepared. And especially he is work in Africa, and this mapping tools the cartography is an important technique.

And similarly, the agriculture, here, what you say is a nomadic tribes right, so where they leave the family in the houses, in the sundried bricks constructed with sundried bricks, and the how the travel around, and basically there is a wars into it. So, if you can associate many things, obviously this is the belts which more prone.

So, there is one set of information from linguistic, one set of information in the religion, one set of information on the type of it constructions available. So, there is all interrelated. So, it is a very important technique, you wants to map at a macro level mapping. So, one can able to understand to and to come to it will help in your micro level decision-making.

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So, that is where it is called cultural mapping is concerned with the comparability of traits the macro scale. And its evidence, whatever the evidence may assist in heightening awareness of certain kinds of cultural attitudes and behavior patterns, but only as a preparation for the encounter set micro scale. So, at least you understand that yes, these are the target group community, which is mostly affected. So, you can actually you know plan for it, how what strategies can go in that level you know, so that is where this cultural mapping is also an important technique.

Thank you very much.