## Disaster Recovery and Build Back Better Prof. Ram Sateesh Pasupuleti Department of Architecture and Planning Indian Institute of Technology - Roorkee

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## How to Teach Disaster Recovery & Build Back Better in Build Environment Education

Welcome to the course; disaster recovery and build back better, my name is Ram Sateesh, I am an Assistant Professor in Department of Architecture and Planning IIT, Roorkee. Today, we are going to discuss about how to teach disaster recovery and build back better in built environment education. So, this lecture is being prepared based on my own experiences for about 2 decades how I have been involved both as a student and as a faculty in different cultural and environmental setups.

So, how disaster has been integrated in the curriculum, in the education and the methods which were adopted and in fact, some of the courses which were actually executed by me and where I keep testing different methods of how to teach the disaster risk reduction and build back better for the built environment professionals especially, for architecture and planning students in India, UK, Mediterranean countries and in Sweden.

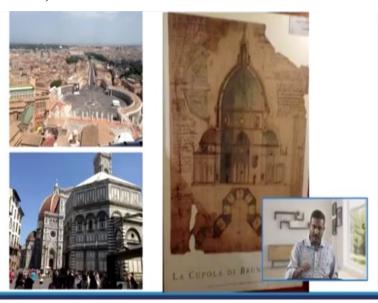
So, that has given me a good exposure of working in temperate climates and the tropical climates, Mediterranean climates and the arctic climates so, I keep testing various tools and methods in teaching this DRR so, I am trying to bring a kind of concise understanding of what I have implemented and what I have learned through that, so before that I will give you a brief theoretical understanding of the educative component of it; the education component of it.

And how it is relevant in the architectural phenomenon and especially, in the present age how it is drastically changing and what are the threats and as a result how this DRR has to be looked into it in the built environment education. When we start about architecture or planning or urban design any of these studies which are related to the built environment orientation, in the past, we mostly have talked about the monumentality of the architecture.

You know, whether it is a Vatican city plaza, whether it is Duomo, you know the Bernard smith work; so the great architects, the great master builders who have actually made these spaces to happen and that is what we all studied about architecture and in fact, when we were studying

these architectural courses, there are different segments of the training starting from your design component and as well as the construction component, the structural component, the service component and the historical component.

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So, somehow we end up studying in most of an isolated manner like each component in a different aspect, so there is always a need to integrate and how we apply the learning of this to that so, this is the missing component and if you take ahead from the historical times of architectural understanding, where people used to work under the master builder and that is how they learned architecture.

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But coming into the modern era where the Frank Lloyd Wright or Louis Khan, you know people that is again, it's a kind of a friendship, how they learn from these masters, learning

from masters, even Bauhaus you know, that has that is just not a school of thought, it's a vision and right so, that's what Louis Khan states; schools began with a tree with a man under a tree, who did not know he was a teacher, discussing his realizations with a few who did not know they were students.

So, this is a very intimate relationship which he brings up and as a result of this interaction, the architectural friendship or the student he tried to test a few ideologies and then come to a particular decision-making process, so that is where this whole education is unlike the engineering subject which happens in a classroom, we as an architects and the planners we deal with the real situations and the psychological aspects of it and the behavioural aspects of it and the financial aspects.

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Prof.Lous I Khan talked of the idea of an individual communicating to several individuals, who after due deliberations, accept the ideas, only when these are found "acceptable" through the process of checks and counter checks over a period of time, intelligently, sensually and the level of performance they generate in patterns of life and living.



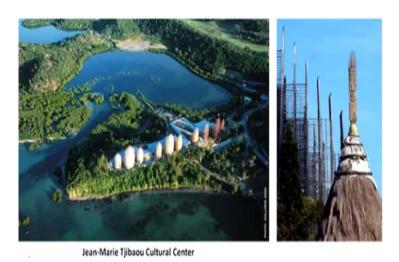
There are various dimensions which are involved in the built environment studies, so that is where this kind of training has been followed upon and Louis Khan talks about this idea of an individual communicating to several individuals who after due deliberations, accept the ideas only when these are found acceptable through the process of checks and counter checks over a period of time intelligently, sensually and the level of performance they generate in patterns of life and living.

So, this is all about the trade and error process of how you develop this idea and how you communicate this idea and how you check this, how you countercheck this and how you see, how it has been experiencing it, how it is behaving, what is a responsive pattern of it, how

people are responding to it, you know that is how the learning process happens. When we talk about an architecture study, we mostly orient our students into the building orientation.

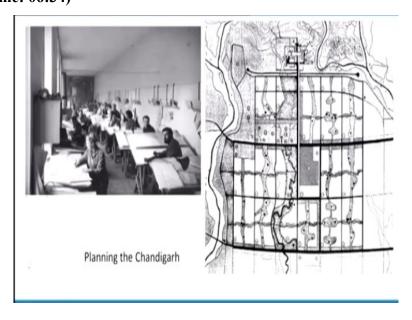
But one has to understand that the building is not just an objectified form of an architecture, it is also the cultural setting you know the cultural setting which makes an important contribution in understanding giving meanings to that place.

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Like for instance, we called about the Jean Marie Tjibaou cultural centre, Ranger piano, which talks about an ecological setting and the tribal understanding and how bringing that into the architectural aspects.

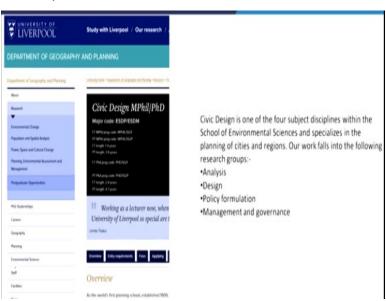
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And similarly, when we talk about the post-independent architecture where Chandigarh; planning of the Chandigarh where western philosophies have come and worked in an Indian with a modern vision and the visions for democracy and equal opportunities and how the method of working and how they have understood the site and how they have understood so, this is all a transition process in the way the architecture have understood with the community, have dealt with the communities.

And earlier, it was very singular process but now it has gradually changed from a singular to the shared visions. When we talk about the shared visions, in fact, today, we are talking about many important courses like urban design or architecture masters.

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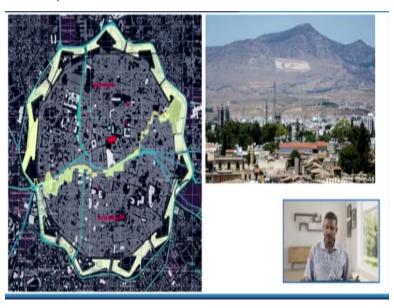
But you see way back in early 19th century and 1850's, Liverpool which have started the Civic design courses, even today this particular course do exist, so that is where they talk about bringing the stakeholders into the design process in the planning process so, this is very important that we have to move from singular vision to a shared vision because many at times they notice that a singular vision process have failed apparently.

And one has to look into and take into the account of different user groups, the stakeholders, the decision-making authorities in the process. In our present context, the globalised so, if we look at the time frame of how our society have moved at least from India, what I mean Srinivas talks about from the Sanskritization, to the westernization and to the colonization and to the industrialization and to the modernization and now today, we are living in the globalization.

But still the gap between the rich and the poor is ever increasing you know, there is a challenges for poor and there are challenges for the rich, it is a very diverse challenges, it is a very incomparable challenges which both the groups are facing today, right so, the poor obviously the poverty reduction is one of the basis of the disaster risk reduction and when we have to talk about the rich, whether it is in the form of a well-planned settlement, well-planned city obviously, it is been organized well.

And whether it is in a building, whether it is a city, one also has to look at in what conditions this city has been planned and what would be the impact not only today but how it will make an impact after hundred years as well, so this is important setting how the for planning has to be taken care of.

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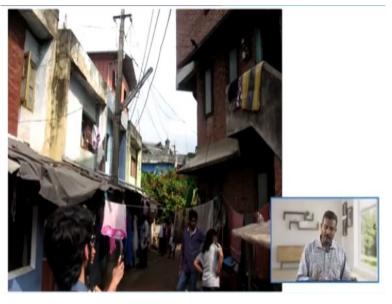
We are also living in the state of wars, we are living in the state of contestation that is where an example of Nicosia, you know how a cities broken into 2 countries, this belongs to two countries; one is the Turkish Republic of North Cyprus and Greek part of the Cyprus which is a Nicosia and the left coast side in the north and in this conditions obviously, how to channel the services, how to have a holistic understanding of DRR, you know whether it is the natural made or a man-made disasters, how we need to have bring back consent.

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These are some of the challenges which we have and the great people like Laurie Baker who actually worked with the poor and especially, developed the low-cost technologies, how we can actually work with local masons, how to train the local mason, so these are all some of the bottom-up approaches of how we can engage these communities or we can you know develop some indigenous methods to construct, so this is one of the idea.

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But then the same aspect, we also have to look at the long-run adaptation of these efforts like for example, in Jungle Chula, what you can see is what Laurie Baker have designed on the right-hand side but what the communities have developed their own initiatives later on and today, one have a very great difficulty even finding out the locating what the Laurie Baker have designed exactly.

So, this actually shows that there is also some gap between what the architecture on that day a vision; made a vision and today how communities have responded to it, maybe due to various schemes coming into the practice, maybe due to the various financial inflows and maybe various needs and demands coming into, so I think this is all a very complex phenomenon.

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Similarly, some NGOs like Hunnarshala, where they are also organizing various summer training courses for the people and students of architecture, that how one can learn with the communities you know, so being with the communities and working for the communities, it also benefit not only the student who is there and learning interacting with the outside world, it will also benefit the community, it will reduce the cost, it will you know certain; there is a win-win situation in both the aspects.

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**SINGULAR VISION TO SHARED VISION**