

Disaster Recovery and Build Back Better
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Lecture – 09
Cultural Heritage: Reassembled

Welcome to the course, disaster recovery and build back better. My name is Ram Sateesh Pasupuleti. I am an assistant professor in Department of Architecture and Planning, IIT Roorkee. Today I am going to talk about cultural heritage re-assembled. It was one of the project where I was familiar with, and I was also partly part of the ongoing project of the moving Kiruna in Sweden.

And today I will explain you that how the whole city has been moved and what are the challenges involved in this moving as town, and what kind of participatory approaches has been adopted, what kind of concerns it has the development authorities have shown, and what kind of confusions they have ended up with. So this whole thing I am going to discuss briefly about the Kiruna project.

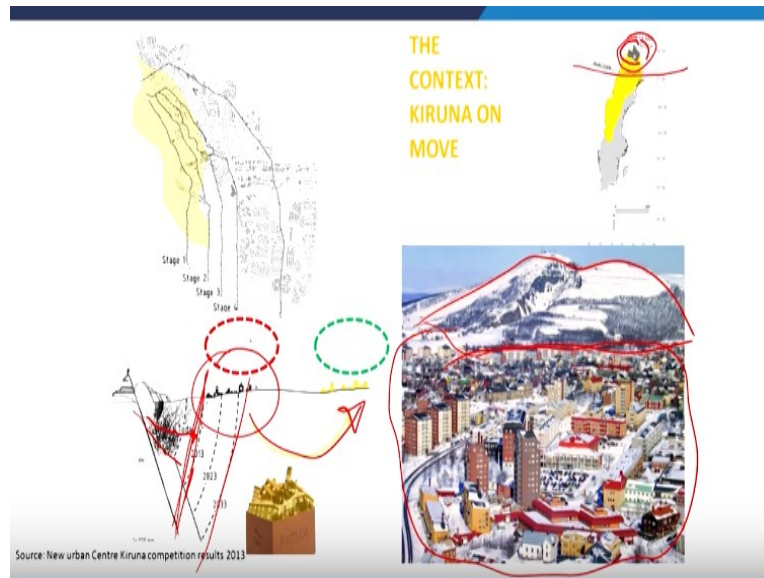
Where I was working with professor Kristina L. Nilsson and my colleague Jennie Sjöholm from Lulea Technological University where she did her own PhD as well. So I will be referring to their contributions on their academic work also the project work. So it will give you an idea of what are the various challenges in the relocation context. So when we talk about Sweden we always see thinks about the Scandinavian geographies with very harsh climatic conditions.

If you ever go to Stockholm up south in the Swedish part, it is much more closer to the European landscapes, but the northern climates are much harsher. I used to live in Lulea Technological University place called Roneo which is 35 kilometres from Lulea, and here the temperature goes off to sometimes -20, -30, -32 so this is how the variance in the winter times and many of the months we do not see even the sunlight.

It hardly comes for one or two hours and then disappears very gently and in summer we do not see it all the night, the sky never gets darker. So it is very extreme kind of temperature either -30

degrees, -20 degrees, -10 or maximum the +15 degrees sort of thing. So this is a place somewhere in the arctic circle after the polar circle on the border of slightly in the border of Norway and the Sweden, the Finland. So this is the place where I am talking about Kiruna and this is the arctic circle.

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So in the photograph what you are seeing here is mine, you know countries like Sweden the rich by means of mining investments you know the mining resources. So whereas in Norway it is rich in oil resources so similarly this particular mining town has been not a very old town, but it is hardly 150year old town. So this is iron-ore mine what you are seeing and this is the Kiruna town.

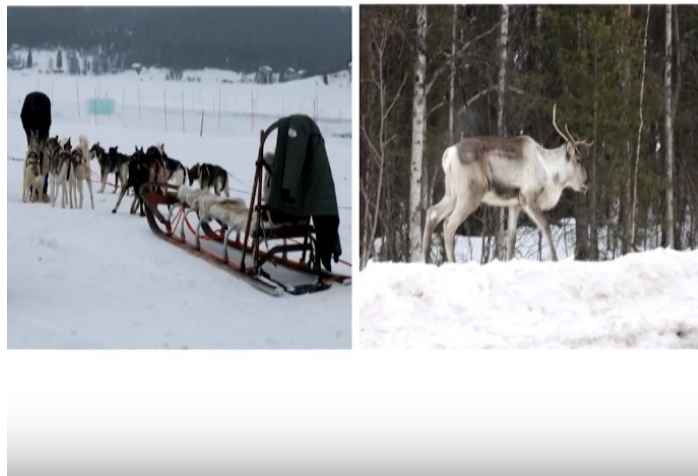
Now, just imagine any mining town in these kind of harsh climatic situation it exists the people are existed because of the iron-ore. Because there is a business sector involved in it because there is a livelihood component involved in it why would people go all the way to -30 degrees and start living there if there is no employment opportunities? So when this iron-ore have started just 150 years before and that is where people started developing a small habitat for them.

And the problem with this mine I mean it is one of the richest ore. They started digging the mine, and they are going underground when I was living in 2013 it came almost down to the city centre close to the city centre. So now they thought that this is going to you know because the mining

activities may hamper the living of the city, you know the city life it may anytime it can bring danger to that whole habitat.

So then they thought why not we move the city into a different place a safe place so in that way they started analysing the geotechnical analysis have been done and they looked at how you see this mining activity keep on going in different stages and by 2033 it will almost reach here. So in that way you are actually living on the whole cities on an iron-ore which is not safe for living.

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So that is where the thought process of why not we relocate to a better place; a safer places. If you look at the Kiruna context, first of all, there is also Sami tribes lives around this region and whose main occupation is about reindeer herding and they have this dog sledges and what you are seeing is the river which gets frozen completely and it is used the dog sledges uses as a kind of passage.

So here the winter climates one has to understand a barrier becomes path, and a path becomes a barrier in a different season you see. So here a barrier as a river has now become a path it is connecting different spaces and similarly the Sami tribes their traditional livelihood is all reindeer herding, and that is how the tourism has been enhanced like ‘ice hotel’ is one of the place and also the Lapland near to the Finland side.

They have also some tourist attractions of Santa Claus village which we call it as Rovaniemi. So that is how this whole winter experience is and very authentic, and it is unforgettable experience for the tourists who come to this particular place.

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Now when they start deciding to move, where to move, so finally they have identified another place A and place B. This place is basically next to the Luossavaara mountain which was earlier a mine has been closed, and there is no mining activity going to happen there, and it is much more safer. Obviously when we think about if it is a safer point we always prefer yes we may move to A because in B the problem is the mining activity is going in this direction.

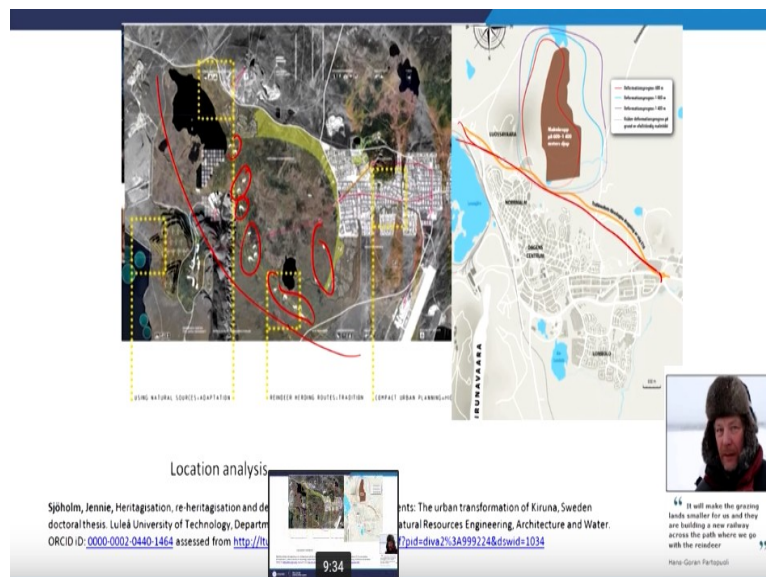
So sometime later it may reach to B as well so we may have to go somewhere else, but in reality the authorities have chosen this. How they have chosen? Because in order to move a city you need to think of moving the services you know the whole underground services service infrastructure has to go and also there is also some uncertainty how after 50 years what is going to happen with this mine.

So a lot of reasons they prefer to go for the B because it is easy to expand the extend their services part of it then the Kiruna Kommun and the mining company the state-owned mining company LKAB all together they have actually floated a competition and for the new city centre

for Kiruna and finally the winning entry is the 'white architecture' with Ghillaradi + Hellsten architecture Space Space AB and Vectura consulting and evidence BLW AB.

So like there is a 'white architects' and his partners have won this company they developed about a 100 year master plan how from 2018 how it can be gradually improved like for instance first you move this and then later on this whole thing is built up you know so in that way gradually how this city has to be progressed and about a 100 year transition plan they have developed.

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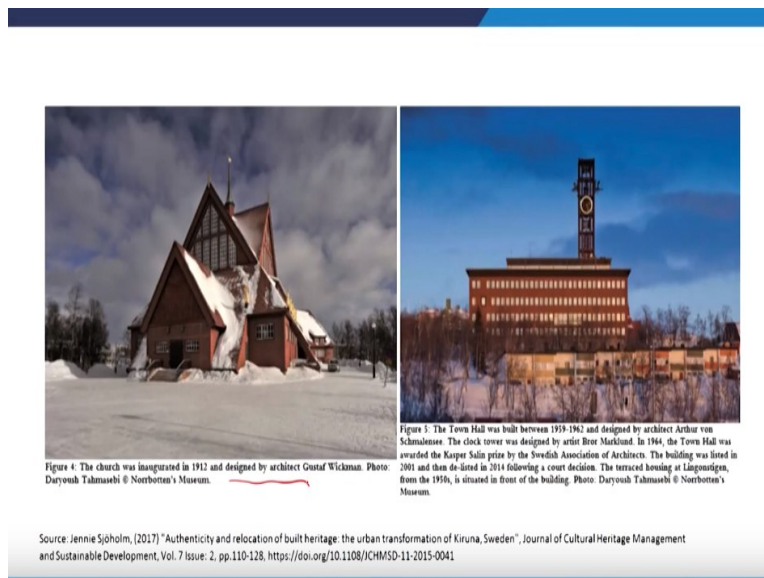
Now when they started developing you know one of the important aspects is they talked about these highway corridors if you ever happen to make these corridors onto this line then what kind of impact because the Sami tribes they says that you know the moment you are making these highways and the whole development it is going to take the reindeer herding routes you know these are the what you can see is reindeer herding routes.

And you know these grazing lands become smaller because the moment you are taking out the whole city from here to there and this whole transition is going to have an impact on the ecosystem you know and that has been the animal you know grazing sources where do they graze so that is what the Sami tribes have actually understood the whole process and then finally they have decided of they moved this whole highway corridor.

Which is connecting to the railway station and the new location as well so the highway corridor has been constructed and this is how they even showed the concern of the tribal people and their livelihood resources and also the natural resources as well.

Now comes the problem yes we are moving to a new city maybe the whole housing sector can be rebuilt again maybe we can demolish the whole housing. But what happens to the culture because a lot of emotions which are attached by these people, one is the Kirunavare Church and the Town Hall and there are also many other buildings which are all listed buildings in 1984 so what happens to these particular historical buildings you know the listed buildings which have carry a lot of emotions and society have laid upon these emotions, and it has created an image within the society.

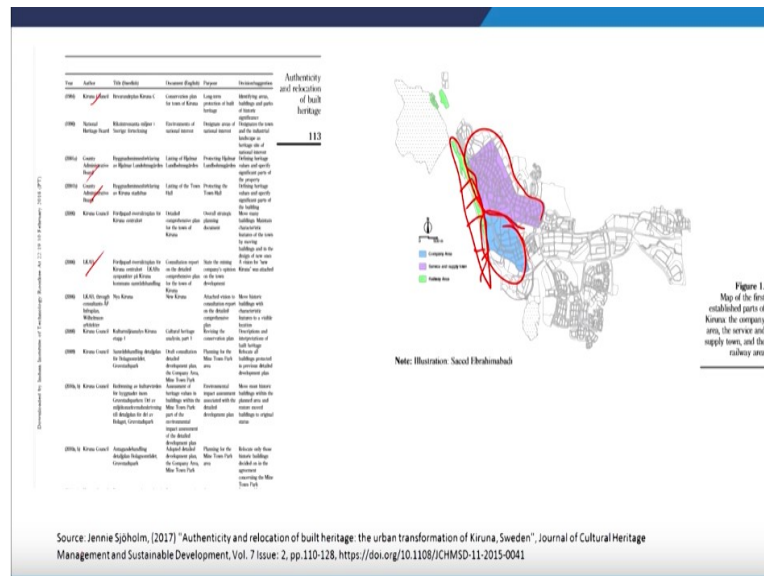
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So now, in fact, this church was actually designed by architect Gustaf Wickman, and also the Town Hall where Arthur Von have designed this, and in fact this is a place for a kind of civic centre you know the civic engagement centre is all, this is one of the image the cultural image of this particular Kiruna. It is not very old like 14th or 13th century, there are hardly 100 year old but still they carry a lot of meanings to those people who live there. So the problem is how to move these heritage buildings.

We cannot, it is not easy to demolish these important buildings and then we are going to construct a new set of image because it is to play with the peoples emotions peoples belonging. And Jennie Sjöholm what she did was because in this particular point of time there is a huge jargon on you know who is doing what and there are many reports coming on reports and reports.

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And in fact there also to understand the Kiruna character and the belonging of it like you can see this is the LKAB company land, and this is the Kiruna Kommun this is the service and the supply town and wherever the railway aspect is there this is the railway land, so you have these 3 are the major stakeholders of the Kiruna one is the railway the other one is the LKAB state-owned mining company and the other one is the Kiruna Kommun to serve the people.

And a lot of documents a lot of heritage board there is lot of documents coming in Kiruna councils country administrative board, and LKAB and a lot of consultants which are developing all the reports but then Jennie what she did was she tried to really put together and she tried to analyse you know what is the purpose of this whole document and how are they related to the conservation of these heritage buildings.

You know what are they talking about to get the jargon of what is happening so I am just showing a gist of her work.