

Disaster Recovery and Build Back Better
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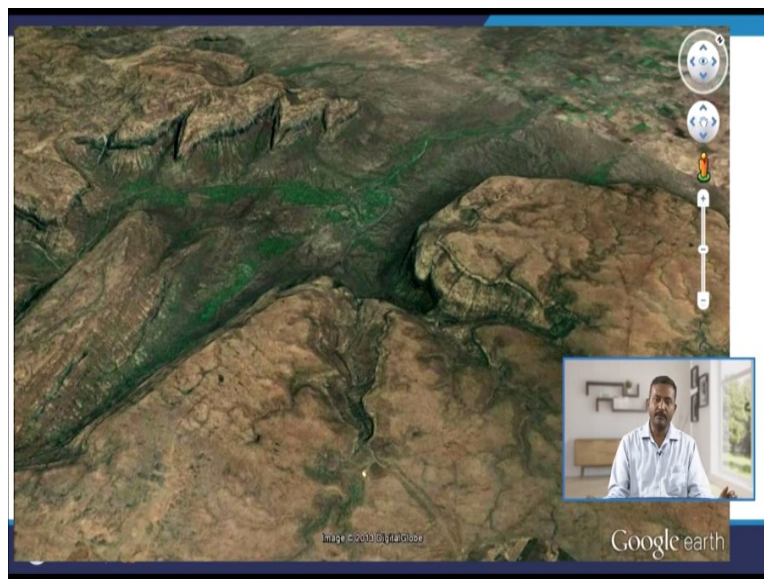
Lecture - 10
Rock Shelters at Risk

Welcome to the course 'disaster recovery and build back better'. My name is Ram Sateesh. I am an assistant, Department of Architecture and Planning, Indian Institute of Technology, Roorkee. Today, I am going to discuss about a heritage component, how it is subjected to risk and how one can analyze from a very multi-disciplinary perspective and also how the conservation plan works along with the risk management plan.

So, this is about rock shelters at risk; and in the whole world if we look at the ancient man's shelter, the very basic form of shelter is the caves, you know the cave dwellings and the rock shelters. And different parts of the world still carry some evidences that how the earlier man have lived and some images of their paintings, there have been some images of their nomadic or pastoral life or hunting life you know.

So, these are all some learnings of how the today's generation can also learn from our historical records and the anthropological aspect of human life.

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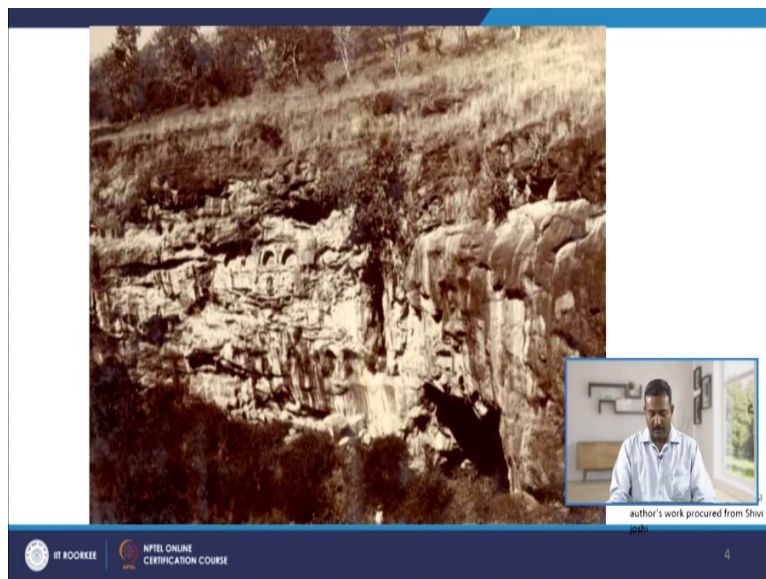


So, when you see at this image, I am not talking about as an historian, I am not talking about as an architect, I am talking from a risk perspective, how this heritage component subjected

to risk and how one can look at from a multidisciplinary perspective. So, when you look at this image, obviously one can notice that there has been some kind of liquid, lava or something which has been flown around this region and it has got settled down.

And that is how from the Google Earth map you can see that the whole gradients and the slopes and aspects which are formed by the way it has been cool down. And then you can see some cliff kind of environment here and a valley sort of thing. If you go little closer, the same cliffs, it looks like this where there is mountains around it, a very plateau sort of mountains.

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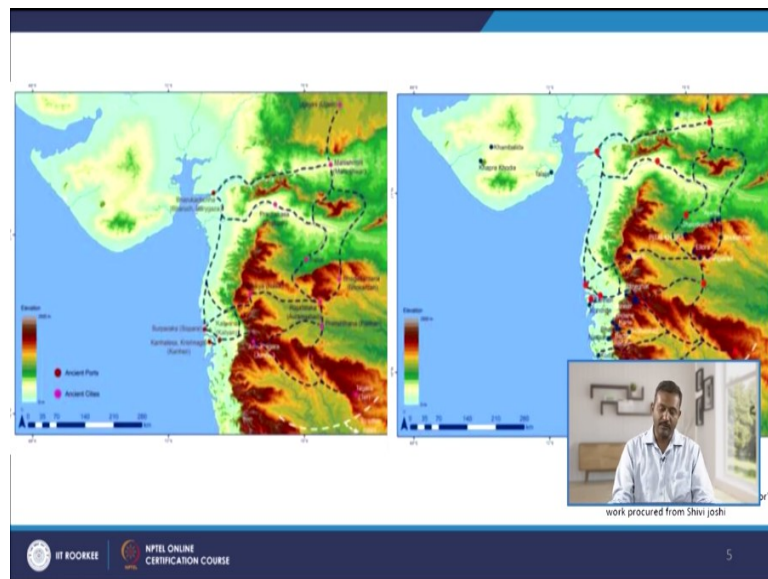


And if you go further closer and this is what we can see the Pitalkhora caves. This is in the Western Ghats in the Satmala range of the Western Ghats in Maharashtra state of India and in fact I want to give a credit of two important people like this is most of the information this has been from the source of Prabhakar Nandagopal. That time he was a superintending archaeologist in the Archaeological Survey of India.

And his work has been, he has been working on this projects and also Deshpande's work, so this I have able to procure from Shivi Joshi's, who was my student earlier in SPA Bhopal. So, many of the photographs and many of the details which I am learning from their work, Dr. Nandhagopal's work. And what you could see is the cave dweller settlement, and in fact this was also a kind of excavation site where people realize that there has been a human settlement here.

And in this, you can find many nomadic tribes you know roaming around and one is it is also just not only in the name proximity but they do travel.

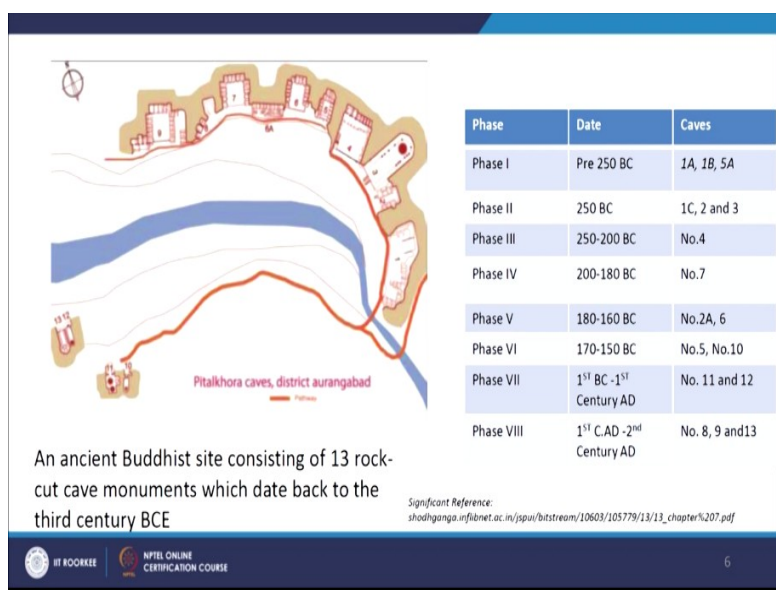
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If you look at their networks, the trade networks, it goes back to Mahishmati, it goes back to Ujjain, it goes back to Bhimbetka in Madhya Pradesh you know, so Ellora, Ajanta. So, like that there has been a network how people have traveled and migrated and settled in different parts of central and the western part of India and also their expansion in the port cities like you know on the western side of the port cities how they have settled down.

And you can see some similarities of how these cave dwellings have some similarities in the African continent as well as in the South American continent, some kind of similar depictions of how man has lived.

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So, this is the layout of a Buddhist site which is a Pitalkhora caves which is in the district of Aurangabad. Now, initially these sites goes back to almost pre 250 BC which is almost to the 3rd century BC as well and they are not done. If you look at there are about 13 caves which has been discovered in the excavation process and some of them have been discovered much later and some were discovered in the beginning.

And if you look at the phase wise, and what you are able to see here is the cave numbers which has been written on 1, 2, 3, 4, 5, 6, 7, 9 and 6a and on the bottom side you have 10, 11 and 12 and 13. There is also they are not the same form, they are not of the same alignment like you can see from number 3 which is a kind of Chaitya sort of thing and here again in 13 as well you can see a kind of Chaityas and Viharas for Buddhist style.

And whereas where we talked about number 1 which is of a very rudimentary stage of a cave which is about dates back to pre 250 BC and then the phase II which talks about the 1c and 2 and 3 which is a smaller one and the third one is a kind of a Chaitya which is an elongated corridor. So, that is again goes back to 250 BC's whereas number 4 which is supposed a huge square base which is between 250 to 200 BC's.

Whereas in 7 which has a similar, which has again a smaller components, smaller compartments around it and that is dating back to phase 4 which is about 200, 280 BC and similarly you have number 6 and 2a, they are all again getting back 180 to 160 BC and if you come like that number 11 and 12 where you can see on the bottom side on the other side of

the caves, you can see that they have dates back to first century BC and first century AD as well.


And number 8, 9 this also again goes back to 13 which is more refined stage in the second century AD. So, this is how it took almost about from pre 250 BC onwards till the 2nd century AD. So, that is a kind of timeline of how these cave dwellings have been developed in this region in the Satmala range of Western Ghats in Maharashtra. Now, how do they able to figure out this process.

You know there have been evidences, there has been some iconographist who have studied how their paintings were done, how the symbolic representations on their pillars, who have donated it, when it was donated. So, there has been a linguistic understanding, there has been an artistic understanding in it, and you know the style interpretation of it. Now, for example when we talk about how they have identified.

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According to the Palaeographical grounds we find five phases of inscriptional records at Pitalkhora.

Phase	Date	Inscription
Phase I	250-230 BC	Mitadeva and Sanghakasa
Phase II	250-200 BC	Rajavejasa family
Phase III	200-180 BC	Dhenukataka (Samasa-putena) and Bhutarakhita
Phase IV	180-160 BC	Nun and Kanhadasa
Phase V	170-150 BC	Avesena



The pillar is a donation of Mitadeva (Mitradeva), of the Gadhika (perfumers?) family, a resident of Patithana (Pratishthana, modern Patthan)

पतिथान सचकस पु
तान यमो दानं
पतिथान मितदेवस
घधिकस कुलस
यमो दान

Image Source: Ms Sarah Welch
11 September 2016

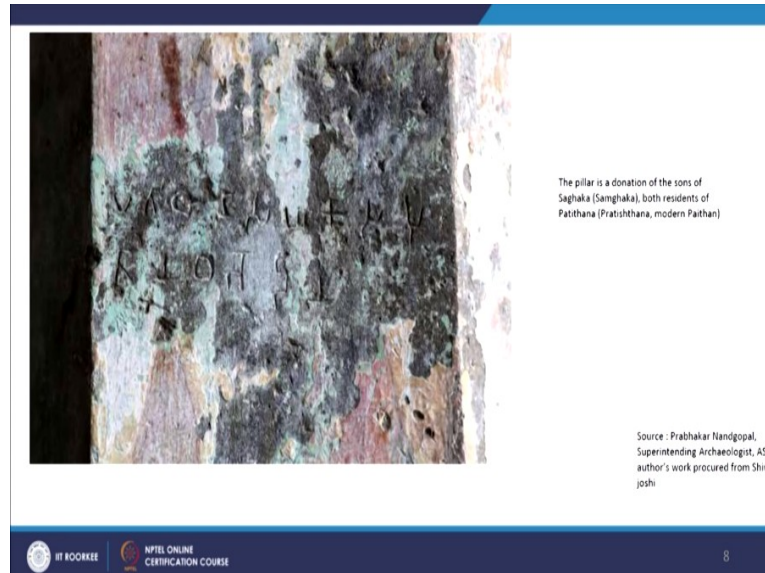
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On the right-hand side in the photograph, you can see some small text which has been written in either Pali or and this is saying that the pillar is the donation of Mitadeva which is a Mitradeva of the Gadhika family, a resident of Patithana which is Pratishthana the modern Python. So, it says, these inscriptions are telling actually about who is the family who have donated to the construction the pillar, so which means and from where they belong to.

So, all this process has been become a very rich evidence to know that what kind of families used to live around, how they are connected, what kind of time they were talking about and

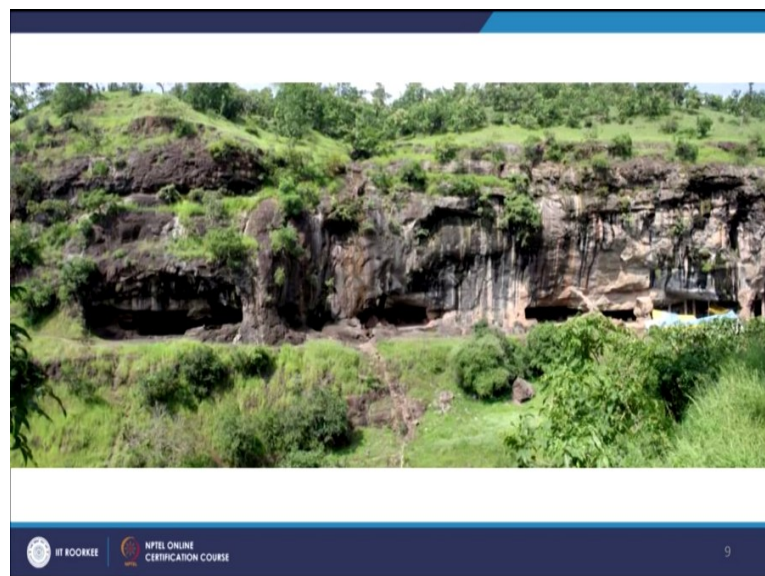
like that if you look at the phases, we find nearly 5 phases of inscriptional records at the Pitalkhora. One is the Mitadeva and Sanghakasa, Rajavejasa family, Dhenukakataka and Bhutarakhita and whereas phase IV it talks about Nun and Kanhadasa and phase V Avesena.

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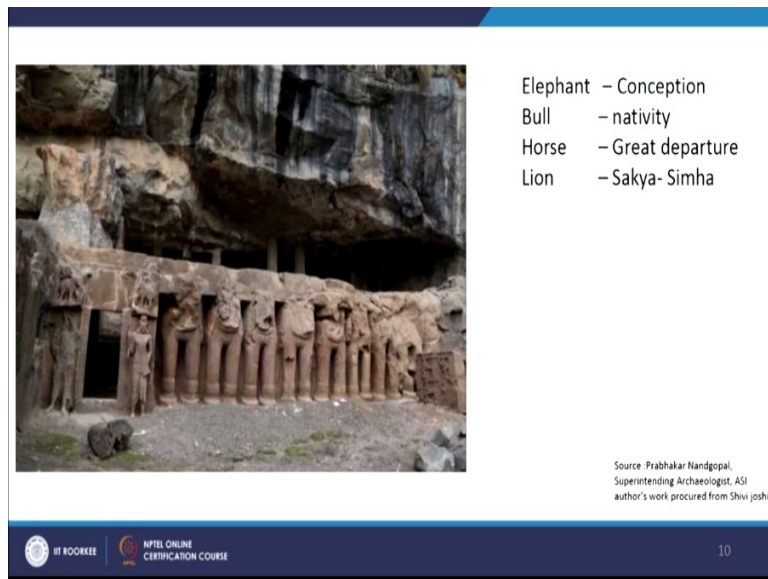
So, this is how some of the evidences and similar to this you can see that this is also donated by the Saghaka both the residence of Patithana.

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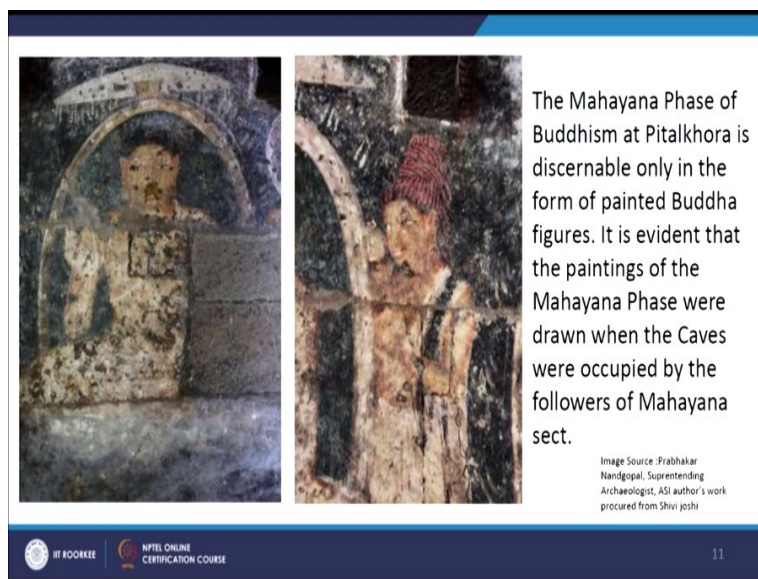
And if you look at the panoramic view of the whole caves, what you can see is small small caves which are actually located in a very linear pattern and has been embedded under this mountain Big Mound which has been covered.

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And there are also some iconographic aspects of science and symbolic aspects of it where you can find some sculpture as well where in their time elephant is referred to the conception, bull is referred to nativity, horse is referred to great departure, lion is referred to Sakya and Simha you know. So, like that there are some different meanings associated to these symbolic expressions.

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In the Buddhism, one of the important phase we talk about the Mahayana phase of Buddhism at Pitalkhora. It is also the paintings which also depict with the time like if you see the left-hand side one which actually both of them they are talking about the paintings of the Mahayana phase were drawn where the caves were occupied by the followers for the Mahayana sect.