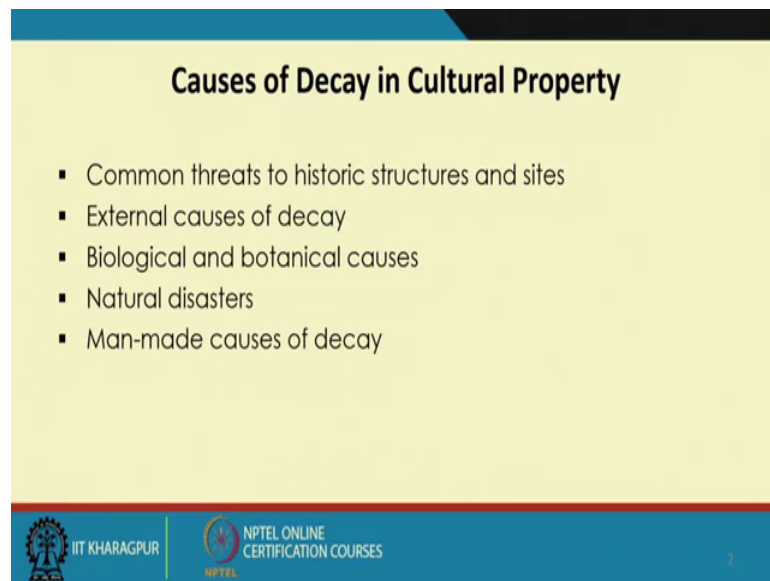


Architectural Conservation and Historic Preservation
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Lecture - 02
Introduction (Contd.)

Welcome back. In the last module, we have discussed about the course structure and we talked about that the purpose of the course and the broad topics covered and we talked about the world heritage sites. Today, we will continue from the next part of that introduction of the topics covered. So, as we are talking about that when we talk about the conservation we have to know when we are talking about any structure historic structure.

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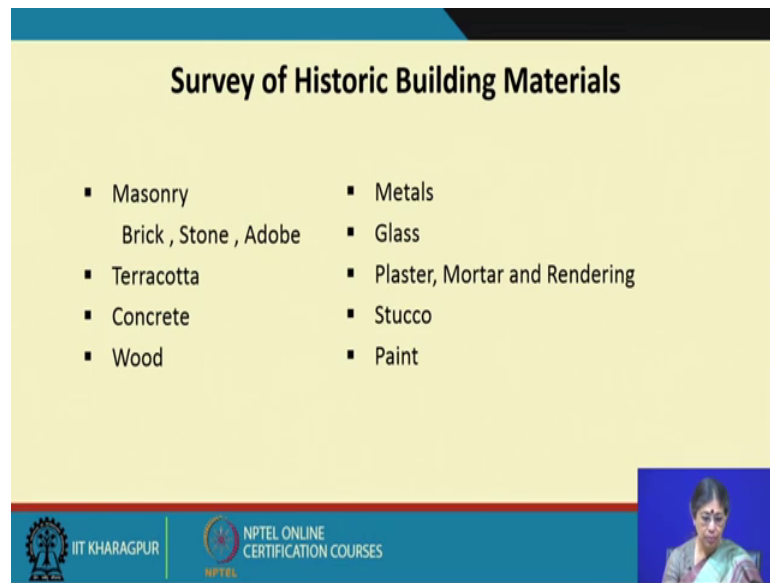
Causes of Decay in Cultural Property

- Common threats to historic structures and sites
- External causes of decay
- Biological and botanical causes
- Natural disasters
- Man-made causes of decay

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What really causes the decay of the structure? What are the common threats? And we talked about the various aspects the man made biological causes the natural factors. And that also is dependent on the different types of materials which are actually there.

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The slide is titled "Survey of Historic Building Materials" and lists the following materials in two columns:

- Masonry
 - Brick , Stone , Adobe
- Terracotta
- Concrete
- Wood
- Metals
 - Glass
 - Plaster, Mortar and Rendering
 - Stucco
 - Paint

The slide also features the IIT KHARAGPUR logo and NPTEL ONLINE CERTIFICATION COURSES logo at the bottom left, and a small video inset of a woman at the bottom right.

Because this depending on the; what material, what type of material? What is the construction technique? The factors have a different impact or effect on this structure.

So, we will take some of the example. while doing that I will try to take the examples mostly from our Indian situation, because that are the different parts of India and talked about the masonry structure which is the brick, stone and other way structures, different types. And then terracotta structures, the concrete wood concrete the lime concrete also the rcc structure, some of the modular structure can be. Then they are the metals, how the metals covered the different types of corrosion affect, glass, plaster, mortar, rendering, the stucco and the paints. So, we will talk about this material was the different and what, how the different types of aspects or factors have an impact on the decaying.

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Documenting Heritage Properties

How heritage properties are identified

- Inventories
- Evaluating
- Researching and Documenting
- Listing
- Inventories of Craft and Skill
- Report Preparation
- Guidelines and Maintenance Strategy

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Once we understand a basic idea about these materials and the causes of decay; what is very important part of the heritage, is the heritage inventory? That how sort of document the heritage structure? How to understand the significance? And because these are very important part of a conservation or before we intervene structure. So, how heritage properties are identified, deciding that which are the structure which will can be preserved and what will be the approach one should take?

So, the inventories there are format of the various types of inventories and various national bodies they sort of from time to time prepare a format. So, the inventories and evaluating; it takes a lot of research and documenting rather what one and it definitely is a multidisciplinary approach, because a historian, structural in engineer, architect conservation architect, landscape architect, an artist, archaeologist, depending on the situation different types of expertise chemist chemical the botanical property is also important.

So, different multidisciplinary approach is required for this documenting process. And based on that listing is done; we will talk about the legal process of listing and also it is not only the tangible structures. It sometimes it can be documentation or the various crafts and skills. So, the inventories of that there may be a different format and then how one prepares a report? And that becomes the basis of any conservation property or

heritage property. And that report preparation also there is a methodology and which also should talk about the guidelines and the maintenance strategy.

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Historic Preservation and Conservation

Selected Case Studies of Preservation and Restoration of Heritage Sites
(Cultural and Natural Properties)

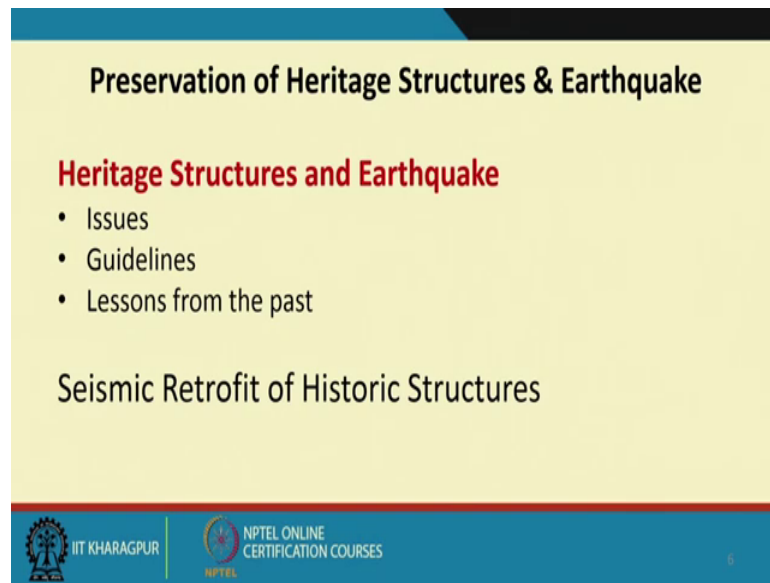
- Conservation of **York Minster, Yorkshire, England**
Investigation , diagnosis and remedial measures
- Conservation Measures of **Leaning Tower of Pisa, Italy**
- Conservation of **Historic Monuments and Sites in India**

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While doing that we will discuss some of those case or the case studies. that what it was done, how the diagnosis was done before the intervention or a particular approach was decided.

I will talk about definitely these 2 heritage structure one is York minister in Yorkshire in England and another is the leaning tower of Pisa which we know that it is sort of an inclined. So, there was a very interesting case that how it was diagnosed and what has been done. And it took almost many years before that. Apart from that we will also talk about other historic structures or monuments from India and abroad to decide that, how this documented documentation process and inventory and the approach was decided?

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Preservation of Heritage Structures & Earthquake

Heritage Structures and Earthquake

- Issues
- Guidelines
- Lessons from the past

Seismic Retrofit of Historic Structures

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After doing that we talk about 2 specific issue like the heritage structures and earthquake because we all know that few years back in Kathmandu in Nepal; there was a earthquake and which really caused a huge damage to a lot of heritage structures and this is something is not only in Nepal, many of the areas or cities or regions all over the world which are earthquake prone zone.

So, there is a discipline by itself that people are talking about this type of disaster and what are the issues, the guidelines and the lessons. What we can learn from the past? And there is also possibility that in the earthquake prone zone we generally do a seismic retrofit of the historic structure.

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Making Old and Historic Buildings and Sites Accessible

- Universal design
- Disabled access
- Services additions to historic buildings

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We will touch on this topic also and another very important part of these heritage conservation is that, making the heritage accessible to a lot of people, the people who are not capable to move their problem with a movement, the old people, not sort of a differentially abled people. So, how we can make the heritage structure sites and pressings accessible?

So, it is talking about the universal design disabled access and what are the services which are required additional services, which will require to historic buildings to make it universally accessible. There are certain restriction, but we have create a balance and how that is done? there is a lot of work is being done at the moment. So, we will talk or touch on this particular issue.

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Historic Cities and Heritage Areas

- Issues of historic cities and areas
- Types of heritage cities and areas
- Delineation of heritage areas

Integrated conservation and heritage areas

- Concept of integrated conservation
- Charters and Conventions

Case studies of integrated conservation in India and other countries

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While talking about this, as I said that there is an architectural and there is a urban or the historic area conservation. As I talked about that it there is a sort of a continuum between the 2 we cannot really differentiate one is an integral part of the other, but we will touch on some of the topics, which talks about a very larger context of the historic areas and the cities historic cities or historic region.

We will talk about these issues of historic areas and cities and we will talk about the different types of heritage city and the areas. And how do we delineate the heritage areas in a city? and a city which is still a living city there are different parts there may be a core there may be a fort area there may be different parts like Delhi in is an example where, there are so many historic areas of the different time period which are there.

So, we will have to talk about that how do you identify and what are the approaches we take in such cases. And that brings us to the concept of this integrated conservation of heritage area this is something which not only talking about the protection and preservation of the historic area. It talks about the integrating the areas or protection or conservation that with the development.

So, this integrating the conservation of the historic areas with the development, integrating the historic area as a part of a larger living city this is what is integrated conservation. And there are various concept about that of integrated conservation there are various charters and convention. we will also touch on those aspects, through certain

case studies both in India and abroad of the various examples we will talk about this issue.

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Then this brings us to another concept which is historic and cultural landscape. Here, the landscape does not mean the gardens landscape, that way is a concept historic concept or calling about the cultural landscape. Where the culture the intangible heritage, the skills, the tradition, the lifestyle, the practices they are all integrated with the built heritage which is a manifestation of the culture.

So, mapping or building up that cultural landscape is a very important part when we try to understand the in the conservation in a larger context. So, this concept and the definitions which are universally accepted, internationally recognized, the charters and conventions and the various example, we will talk about in one of the modules the historic and cultural landscape. or after all these case studies were from time to time we will also discuss the Indian example.

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Conservation of Heritage Properties in India

- Monument conservation and the role of Archeological Survey of India
- Central and State Government policies and legislations
- Role of Indian National Trust of Art & Cultural Heritage (INTACH)

Over view of urban history of India

- Understanding the character and issues of historic cities
- Selected case studies of towns, historic districts and heritage precincts

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We will like to talk about specifically that what is happening in India? What is the framework in India? Who takes care of our heritage properties? What are the guidelines? What are the bylaws? So, we will talk about in Indian situation that, monument conservation and the role of the archaeological survey of India. When you go to an historical site you see a blue sign board when why it is written that is a protected site are protected by ASI. that is under certain legal provision is there.

So, we will talk about that and we will also talk about the not only the ASI the central body, there are state archaeology and there are other bodies who take care of the heritage in a place, in a city, in a larger context. We will talk about that and we will talk also about the legislation which sort of ensure that they are protected and preserved and what are the implication of that in that context, we will also talk about not only the state body.

We will also talk about the certain other bodies which are not purely governments like intach in India Indian national trust for art and cultural heritage which plays a pioneering role in documenting, advising and also taking care of our heritage. ah, but when we talk about that we also have to understand the urban history of India, that what has led to this type of heritage?

There is a very pluralistic society, there are different types of heritage over the years over the centuries it has contributed to see these layers what we have in our ancient cities or even some of the modern cities. They are their layers. Delhi is a very good example of

that, there is Jaipur, there many of the south Indian cities, where there was a temple town. And now, they have crooned. So, while how this layer we have to understand these layers and how it has contributed to what we see today and from there where do you go. So, this understanding the character and the issues of the historic cities and through certain selected case studies of towns and historic district and heritage pressings.

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We will talk about this specific situation in India, just have a glimpse of that. we will also like to talk about take a regional perspective, this regional perspective we will talk specifically this region. sort of where our IIT Kharagpur is based in the Bengal, in a larger context of Bengal. We will talk about the terracotta temples of Bengal, the evolution of the Bengal the issues of that the design philosophy and the problems which are there.

And we also will talk about another type which is the shared built heritage of Bengal because of the colonial legacy we have a different type of heritage. Which is there in all parts of India, but in this module, we will talk about only the Bengal and this too. So, it will give you an idea that what is meant by a regional perspective of the heritage conservation?

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New Building in Historic Settings

- Townscape Analysis
 - Criteria , Guidelines and Tool Kit
- Visual Integration
- Examples

Heritage Impact Assessment

- Methodology
- Selected case studies

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After doing this, as I have already mentioned that we have to understand that, when we are talking about an old city or a old area. It is a part of a city which is living and it is not possible to preserve all the structure.

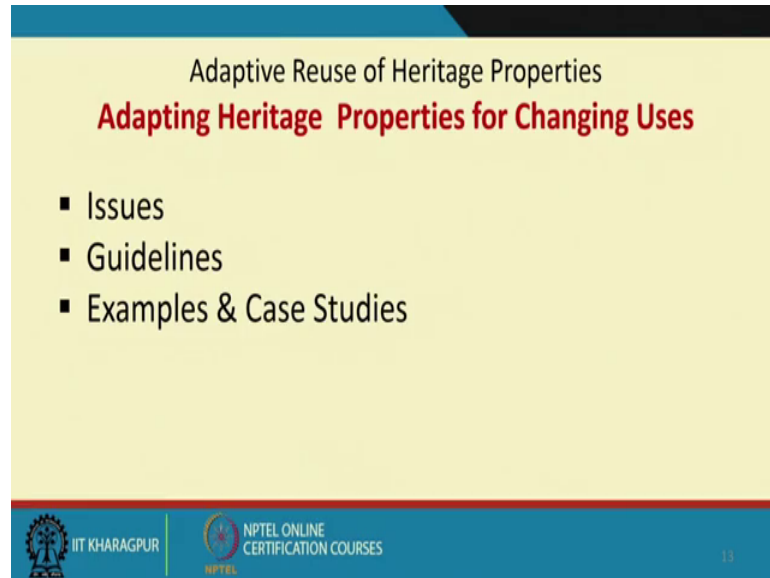
So, it is invariably even if we define an historic area, there will be some new structures. So, how a new structure can come up in an old historic setting? What are the issues? What are the guidelines? What are the toolkit? What are the design guidelines? How it should be done? It is not an we cannot go back in history. We have to go forward, but how do you do this integration? How sort of we designed the new structures in an old setting? How do you do talk about the visual integration with certain examples? Not only from India the various cases.

We will talk about we can always learn from not only the good practices, but we also can learn about the somewhere the things have gone wrong. So, we can take a critical overview of these examples and see that what should be done? Or what can be done? Or what could have been done? In certain cities. in doing that another very important aspect come which is called the heritage impact assessment. This heritage impact assessment is not only the visual integration or the visual aspects.

But in this heritage impact as assessment, which also talked about the users, the people, the community, which are very much a part of this historic areas. So, this heritage impact assessment which is a coming up. very recently there are many formats, which are

available. We will talk about that we will try to see that how it can be also used in some specific context. So, we will talk about the methodology and with selected case study, we will try to understand this concept of the heritage impact assessment.

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Adaptive Reuse of Heritage Properties

Adapting Heritage Properties for Changing Uses

- Issues
- Guidelines
- Examples & Case Studies

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Why are we talking about the new buildings in old setting? I have initially talked about that there are some old structure, probably they have outlived their original use or purpose. So, how we can sort of a whether and how we can sort of use them in the modern context? And what are the implications? How can be done? and what it should be used for? So, this is called the rehabilitating the old properties or the adaptive views of the heritage properties or adapting heritage property for the changing use.

How the decisions are taken? That what it use it can be put to? And what are the advantages? Disadvantages? What are the implication? What are the guidelines? So, some of few case studies we will talk about that and see that how it can input another significance to the old properties? And they become more valuable sometimes.

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Reducing Disaster Risks in Historic Urban Areas

- Types of disaster
- Vulnerabilities of historic cities
- Key principles and approaches for urban disaster risk management
- Various measures for pre-disaster risk reduction/mitigation
- Emergency response and post disaster recovery in historic urban areas
- Recent international initiatives related to urban disaster risk reduction.

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I already talked about the earthquake, but in this module, we will talk about not only the earthquake. We will talk about the disaster different types of disaster which can happen in the historic urban areas. So, we will talk about the types of disaster, we will talk about the vulnerability of the historic cities, the key principles and approaches for urban disaster risk management.

And we will also talk about the various measure way before the disaster can happen, what can be the mitigation or the risk reduction measure? They emerge in emergency response and post disaster recovery in the historic urban areas. And some of the recent international initiatives related to the urban disaster risk reduction.

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Conservation as a Planning Tool

- Financial incentives and legal aspects
e.g. Transferable Development Right(TDR)
- Conservation Committees
- Heritage Acts & Bye Laws
- Heritage Tool Kit

Selected case studies of towns, historic districts and heritage precincts

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Once after all these various aspects, when we see the conservation of historic area architecture and other thing. We must understand that it has to be implemented it is just not keeping it in a protected area and it has to be of certain use, in the modern context present society for the future society. So, and there the implementation is very important.

So, we will talk about this that how conservation can be used as a planning tool? financial incentive and the legal aspects which can be there. So, that because all cannot be a government properties or public properties, there are many of the heritage structures which are privately owned or even if it is public owned government, owned this, this use factor the maintenance factor the legal factor these are very important and who does that there is the importance of a conservation committee? Who are the members of the conservation committee? What is their rule? and what is their responsibility? What is their jurisdiction?

This is a very important part and along with that what is important that whether do we need any special acts or bylaws to take care of our heritage. So, whether they should be just prescriptive? Or they should be proscriptive? There should be a toolkit approach? I will talk about that with some of the selected case study of towns, historic district and heritage pressings. that what are the implication or meaning and how we can take a very proactive role in the conservation? And how we can use that conservation as a planning tool? A very important part of the heritage is just not only protection and preservation,

because it is the awareness is to be shared with not only the present generation, but for the future generation.

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Interpretation and Presentation of Historic Sites

- Urban conservation and heritage tourism
- Heritage Trail
- Signage system
- Planning and designing for heritage interpretation
- Facilities and management
- Awareness programmes

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So, the interpretation and presentation of the historic sites is very, very, very important and with the technological improvement, a lot of these presentation techniques changing that how we can sort of bring the history? How we can interpret the history? How we can make the history more meaningful? And so, this takes care of the interpretation and presentation of historic sites. And a very important part of that is the heritage tourism, heritage trail, heritage walkway, the signage system and how it can be very interesting very creative very innovative.

And that how we can design about the planning? And we can design for the heritage interpretation? What are the facilities which are required? And how do you manage such properties? And what are the different types of awareness program? How are we involved? Or how it can be an inclusive approach? That we involve all types of people all ages of people from a school kid to an old person disabled person.

So, how this interpretation presentation to a person who is, illiterate is an illiterate person with a different levels. So, these is a very important aspect of the heritage preservation.

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Heritage & Democracy

- Community participation and role of NGOs and voluntary agencies
- Community participation in preservation of historic sites and precincts

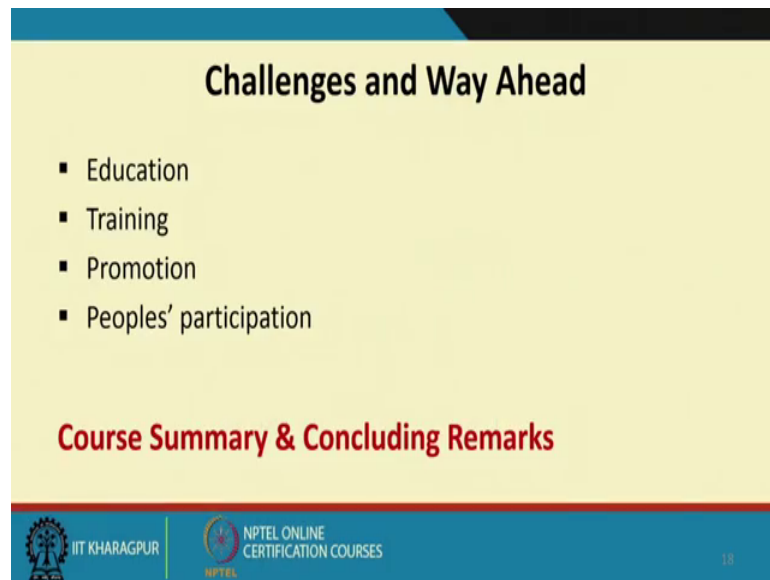
Site visit to a case study area

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So, interpretation and presentation we will talk about that with some of the case studies. while talking about that as I saying I am repeatedly talking about the community. So, heritage and democracy, because the heritage is not possible without the involvement of the people, it is everybody's heritage so, this community participation it can not be a top down approach it has to be done, it has to evolve with the people and with the participation. So, that there is a sense of pride there is sometimes a always there is a sense of pride, but if it is not.

Then how do you can include them? In not only because people or a community is a caretaker of a heritage. So, the community participation and the role of a NGO and the voluntary agencies are very important part of the heritage preservation. So, probably at this stage, we can make a site visit where we can talk about that how these community participation played a very important role, in preservation of a heritage. So, that probably if you can make it can be an interesting one.

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Challenges and Way Ahead

- Education
- Training
- Promotion
- Peoples' participation

Course Summary & Concluding Remarks

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Finally, in the concluding module, we will talk about that what is the challenges and all way ahead and what is the role of education training and promotion? And the peoples participation. And in this module, we will sum up the sort of whatever we have learned. And we will have some concluding remarks, to see that how we can go ahead what are the challenges? And what we have learned, we will summarize that during this course.

Thank you.