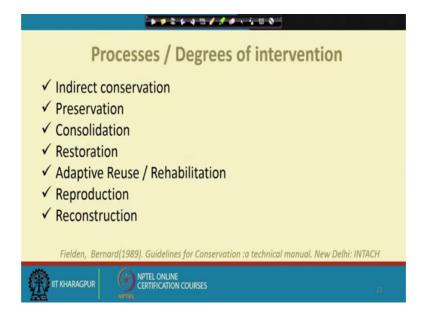
## Architectural Conservation and Historic Preservation Prof. Sanghamitra Basu Department of Architecture and Regional Planning Indian Institute of Technology, Kharagpur

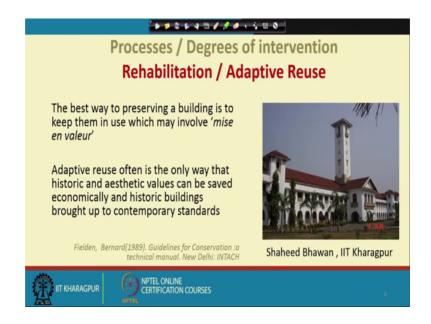
## Lecture - 12 Divergent Approaches for Managing and Rehabilitating Heritage Properties Degrees of Intervention (Contd.)

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So, we have been discussing about the divergent approaches for managing and rehabilitating the heritage properties. And today we will continue with that what we have been discussing. If you remember that we discussed the various approaches of indirect conservation, preservation, consolidation, restoration etcetera. And of this we have already talked about indirect conservation, and preservation, consolidation and restoration. Today we will talk about the adaptive reused, and we will talk about reconstruction, and we will talk about reproduction. Let us take one by one.

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First we will talk about rehabilitation and adaptive reuse of historic structures. The best way to preserve a building is to keep them in use which may involve mise en valeur. What that means, it is a French word which means an enhancement. A structure which is an historic structure which may have outlives its original purpose that means, it is no longer is used for the purpose for which it was built, but the structure is there. It may require some sort of a preservation, restoration and consolidation, but still it can be used. In that case, the best way is to keep them in use.

So, adaptive reuse that means, it has to be adapted to the new use, often is the only way the historic and aesthetic values can be saved economically and historic buildings brought up to the contemporary standards these are a bit tricky issues, but these need to be understood. So, Bernard Fielden gives this as the definition of the rehabilitation and adaptive reuse that when a building has outlived it is original purpose what it can be used for and how it can be used for. If you remember, initially we have talked about the very structure or the building where IIT system started the first IIT Kharagpur started in this building.

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And now if you remember we discussed about that that originally it was designed as a 1917 as a collectorate building, a district collectorate when the district has to be, but it was never used for that purpose. But later on in 1931-1942, it was used as the Hijli detention camp. So, the building was kept in use; and it is sort of a survived. And during the Second World War time, it was an air force base. And after the World War over and during after all independence, when there was decided that it renew system of technological education will be there. So, this building along with this a huge sight the surrounding area we started the first IIT system. So, this is the building where in 1951 IIT, Kharagpur started, the first IIT in India.

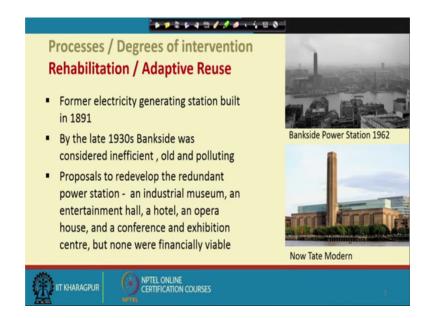
After that over the years this building also was not enough, there were more spaces required, the new building came up; and these building were the original building it was not used. And now it is used as the science museum where the Shaheed Bhavan because there are certain incident happened during when it was a prison and detention camp and in memory of that it is named as Shaheed Bhavan, and it is a science museum which is hosting there. So, you see that the use has been changing over the years from a detention camp, supposed to be a collectorate, then air force base, and then an IIT building where the classes and the administration was there, and now it is a science (Refer Time: 03:57). What is the advantage, the advantage is that this beautiful building has survived and it needs some sort of a special care another, but still it is being continued to be used and that is the purpose of what we call the rehabilitating an historic structure.

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Now, the recycling of a building, so we call it a recycling of building, it has long been an important and afflict effective way, so that the building is not demolished and it has been used as a preservation tool. In initially developed as a method of protecting historically significant buildings from demolition. And there are many, many examples where I mean entirely different type of activities are being used are hosting in this type of structure. A very well known example or there are many as I said there are many well known example which is used as the Tate modern. It is along the River Thames and opposite Saint Pauls Cathedral. And there the Tate modern gallery is hosted there. And you know what is the original use of this building. It was a bank site power station in 1962. It was a designed or used much earlier, but this is a picture from 1962 when it was still being used as a source of energy.

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It has gone through several sort of debate and discussion because a lot of pure conservation esthetic did not like that this sort of the thought is an ugly building opposite Sense Paul Cathedral along the River Thames. And there was a lot of because it was initially a very important landmark for an industrial revolution, where former electricity generating unit was it was built in as I said 1891. And by late 1930s the Bankside was considered was an inefficient, old and a polluting source. So, a lot of people really wanted to demolish the structure and make this a riverside more beautiful and others do this was an example of an industrial heritage in today's context.

So, there were proposal because there were two groups of people, one group of people wanted to keep it preserve it as a landmark of an industrial revolution, industrial heritage. So, they were a proposal to redevelop this redundant power station some proposal there for the industrial museum, somewhere for the entertainment a hall, or a hotel, or an opera house, conference and exhibition, but none were physically or not financially, they were not viable. Because this is a very important thing the physical structure was there intact it was quite structurally sound, but it was not financial viability also has to be tested.

So, as I said there was a group and a strong opinion that the building should be demolished. It sort of changes the hand it went to the private owners; and at one of point of time they were removing all the machineries, and other things from the structure at that point there was some public opinion.

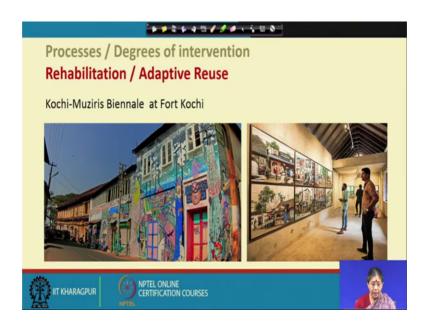
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1990 The BBC television programme One Foot in the Past focused on the impending threat to the building that it is going to be demolished; the reporter, Gavin Stamp, made an impassioned plea for the building to be saved. And as a result we see the building still standing today as a landmark of an industrial heritage, but for entirely different purpose. What happened in April 94 the Tate gallery announced that the Bankside would be the home for the new Tate Modern.

Now, see what a contest area of factory power generating unit and which is for (Refer Time: 07:59) artistic endeavor. And what is happening now the it is a turbine hall which is the huge gallery space where the Tate Modern people come there. And it is a very and this is some of the inside gallery space. And millions of tourists come to this place not only this place. Now, it has really created a sort of a landmark at around the space. And it has it is able to create a lot of not only financial return, but it has really created a space of activity. And this is what it is unthinkable it is a totally contrasting situation, but this is possible. So, the shell or the structure is there modifications were required a lot of internal, but still it is a landmark which is completely changes use. So, this is what is which called rehabilitating a structure or adapting an old structure which is out dated is used for some other use. This some other use also need to be seen and tested and examine and a lot of very sensitive way.

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A very good example in our country which is in Kochi Biennale. Since 2012 this Kochi Biennale has been going on in the Fort Kochi area. So, lot of old structures which are there, the residential area, the commercial area which was very sort of not in a very good state and suddenly there was a foundation private foundation which started this Biennale. And now it becomes a really an activity area. And it has been able to regenerate economy of that area, but keeping the structure is an entirely newer residential area is totally changed to an art center, activity center, tourist center, equational center.

But still it has got some of the people who are staying in that area. And it also creates an generous economy for that area because when the tourists come, the artists come, the interests are created and it also the home stays hotels and the cafes and restaurants galleries artists activating there. So, it is an entirely new environment which happens there and it has been able to create or sort of a new environment not only, but it has been able to keep the original structure the fabric and other, so that is. And all over the world these the creating or converting or rehabilitating the old areas the godowns, and other areas into the artistic endeavor. It is very very popular and in Berlin it has been there are many many other places this type of spaces has been old structures have been reused or rehabilitated as artistic quarter many many other uses are also possible.

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So, finally what is really adaptive reuse adaptive reuse is the act of finding a new use for a building then that is very important that what could be the new use of the building which is should be the sensitive to the original historical use. For example, I suppose the structure has an associational value, and where the interior of the structure the interior layout is also very important; in such cases probably we cannot keep that for adaptive reuse at least not totally if there are some of the places which have a sort of a memory or association we have to keep that. So, one has to see that first what is the value and significance. And in that context one has to find then you use. Sometimes, it can be for a singular structure; sometimes it can be a group of structure; sometimes it can be the part of an entire city like the Fort Kochi area.

So, it is often described as a process by which structurally sound older buildings were developed for economically viable new uses economically viable, but one must remember it should not be and the profit is important, but that is not the sole criteria in deciding that what can be the new use of these buildings. This is how so Bernard Fielden talks about adaptive use.

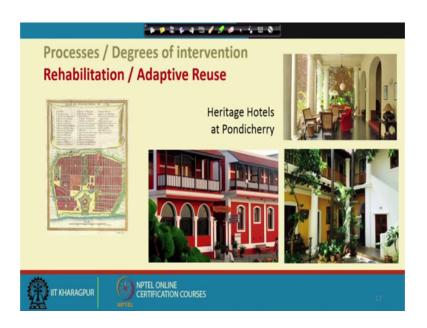
Let us see what Burra Charter the Australian e commerce charter what it talks about the adaptive reuse or rehabilitation. It says the adaptation means changing a place to suit the existing use or the proposed use. So, this is one. And compatible use, this compatibility is very important which means a use which respects the cultural significance of a place.

Such a use involves no, or minimum, impact on the cultural significance. So, this is very important that we have to understand what is the impact of the new use.

For example, we have seen in even in I am talking about Kerala also which is a popular tourist destination. Many of the old structures are being bought by the resource and they are put to as a resource or the luxurious staying places, but the people who are local people they are complaining because they said that which was supposed to be the alter of that house, they are now being converted into toilet or something else. And that is not even if they are not used as the residential purpose these it is also contradicts the sensitivity of those users. So, one has to be very, very sensitive, so that there is no minimum impact not only in terms of use, but also it should not happen that by converting into some other use, it should not intervene too much into the structure that is very important to understand.

Adaptation is acceptable only when where the adaptation has minimal impact on the cultural significance of the places. So, one has to understand before one decide what is the proper use or the compatible use that which type of use really sort of uses or utilizes or explores, the potential of the structure that is very important and so that it has a very minimal impact on the significance for which it is we are valuing that structure.

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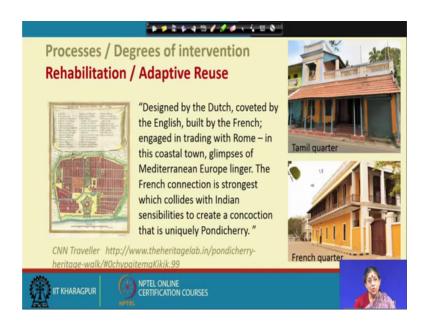


So, this is what is important. As I say there are the many places all over the world which has really, this is Pondicherry, there are lot of heritage hotels you can see that. These

hotels are people come there to sort of appreciate or enjoy these charm's of the old days, charm of this particular type of environment courteous, the verandas, and the balconies of that and. So, they are really or making the place quite outstanding popular and a very unique in a way.

Now, when we talk about Pondicherry, we must understand the Pondicherry was a French colony over the years for a long time it was. So, it has a very unique townscape value. And it is not we are not talking about one single structure or one sort of a very very monument type of structure. We are talking about normal houses and which make up the cityscape, the townscapes and other and then adopting that to the new uses which is sort of is profitable definitely, but viable and also it is also sort of comfortable with the old residential structure.

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And while talking about Pondicherry, there I am quoting that this design by the Dutch, coveted by the English, built by the French; and who engaged in trading with Rome - in this coastal town, glimpses of Mediterranean Europe linger. And this is what is the unique value of this place the French connection is strongest, because it was a French colony and which collides with the Indian sensibilities to create a concoction that is uniquely Pondicherry. And that is the what is the value that is the sort of o sort of u s p Pondicherry that is why the tourists come. And while we are talking about Pondicherry, we must remember that it is not only the French Pondicherry, there is a Tamil quarter

there are also structures where people are staying, there are traditional quarters or people have sort of left that.

So, there is a Tamil quarter is an entirely different architectural style, architectural system and there is also a French quarter it is also the ashram which is their Rishi Aravindas Ashrama other was there. So, a lot of these spiritual activities go on all over. So, we must understand these sensibilities and keeping the sensibilities keeping the values of the local community, keeping the sort of understanding that how sort of it should not interfere with the daily life of the local people these things are there. And it can turn out to be a very very unique experience and this is what we call the adaptive reuse of a structure or a part of a city or a group of structures.

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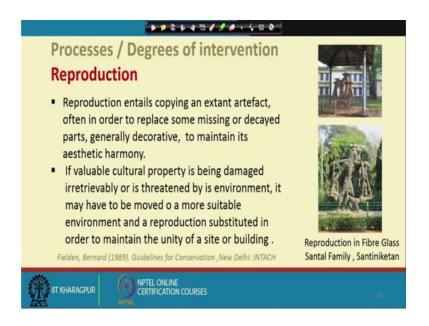
The next one is the reproduction. So, what does the reproduction as an approach means? Reproduction entails copying an extent artefact, often in order to replace some of the missing or the decayed parts, generally decorative, to maintain the aesthetic harmony. So, this is how so Bernard defines that about the reproduction. Now, why and when this reproduction happens if valuable cultural property is being damaged irretrievably or is threatened by it is environment, that means, it cannot be sort of a brought back or cannot be repaired to the original condition it may have to be moved to a more suitable environment sometimes we say that it has to be kept to the side or sometimes it can has

to be moved to a different suitable environment. And a reproduction substituted in order to maintain the unity of the site or building.

If you remember we have discussed about the blast furnace in the Iron Gorge museum, we had talked about Santiniketan you said that they have been kept in the on the sides. But there are situation where it has to be sort of taken to a more safe environment to preserve it. And then probably it has to be replaced with something a substitution. I am for example, I am talking about this is a Shalabhanjika which is a very important part of the Indian heritage structures that this is a lady with a tree, they are important and I mean they are in very of the things. So, you can see on the bottom, there is a Shalabhanjika which is actually from Bharut and which is now kept in the Indian museum.

So, you have been taken there it is not in the site, but when then the upper one we can see the Sanchi Torana the Eastern Terrain of Sanchi Torana the Shalabhanjika is still there which has been kept there. So, when it is not possible to keep on the side we may shift that and we may or may not substitute by a reproduction. And sometimes you can keep it both are possible then sometimes you can keep it as a whole sometimes we sort of reproduce a part of the structure. So, this (Refer Time: 19:44) me very.

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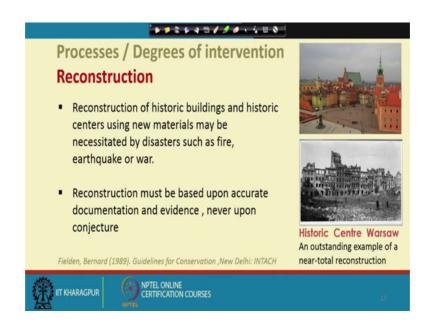


Let us see an example as we see that the same thing with some other example we have talked about Santiniketan. If you remember Ramkinkar Baij, these things I have talked about that how they have just created some structures to preserve it from the

environmental condition and the structures are kept on the side. But in such cases, there would have been two possible approaches, one is to keep a substitute on the side through reproduction and take the original back to a more sort of a safe environment. In this case, the Visva Bharathi authority what they have done is that they have kept the original on the site in situ and given such sort of a protection which may not be aesthetically very pleasing, but at least the original structure is still there.

But in addition what they have done they have reproduced the structure and that is why I am saying they have reproduced the structure in fiberglass the Santal family in Santiniketan few of them has been reproduced, but they are kept somewhere else. They could have been kept on this side and the side. So, these there are various approaches, but as you can see that it is an exact reproduction which has been done in fiberglass which can be kept outside without any shelter and other and it can sort of a completes the thing. In this case, of course, Visva Bharathi authority they have kept that reproduction in some other side, now some other location and clearly mentioning that it is a reproduction in fiberglass from the original structure. So, this is what reproduction entails.

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Reconstruction the finally, we are coming to the final sort of an intervention measure which is the reconstruction. And there is a subtle difference between reconstruction and reproduction. Let us see what reconstruction means. Reconstruction of historic building and historic centers using new materials may be necessitated by disasters such as fire,

earthquake, war, or terrorist activities, you know the Bamiyan Muthu which has been sort of a destroyed, there are many many examples. So, in such cases, reconstruction may be desirable; it can be a fire, it can be the earthquake and other things.

Now, there are certain sort of principles when we talk about the reconstruction. So, it must be based on the accurate documentation and evidence never upon conjecture, nobody can say it could have been like this another. So, there must be authentic documentation to say it was exactly like that. So, people are reconstructing it. Now, we can if seen cases that where reconstruction is being done or they are kept as it is. So, they are the different approaches who decides how it the decision is taken, there are the various criteria for doing that, but when the reconstruction is done it has to be done on the actual sort of a documentation archival.

If you remember we have discussed about Warsaw, that how the reconstruction the entire city core of Warsaw has been reconstructed. We have discussed that it depends on the value and the significance, and it is a world heritage sites not because it what it is it also because of its signify, so represents the spirit of the people that who have decided to reconstruct this. So, Warsaw is a very well known an example of that where the reconstruction has been done according to the actual (Refer Time: 23:33) document that with the original and it is used for some other purpose.

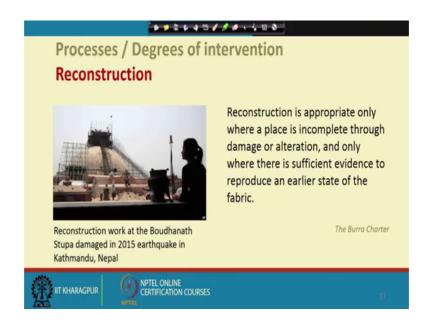
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In some cases, reconstruction may also be appropriate as a part of the use of practice that retains the cultural significance of place. Sometimes, we have already discussed Japan which is their tradition that every 20 year some of the shrines are reconstructed or rebuilt, but there are situation where because of the requirement a particular requirement they need to be reconstructed.

Now, a very good example well known example is the Somnath Tempe in Gujarat it has been destroyed over the history many many times. And now reconstructed in Chaulukya style of Hindu temple in 1951. And it there are sort of a lot of controversy around this that what was actually there and now, but anyway there is a decision because of his spiritual significance or religious significance, it is considered as one of the holy places. So, there was a decision to reconstruct it according to some of the architectural style which they are probably some research was there to say that how it will be built. So, for such purposes reconstruction can be done.

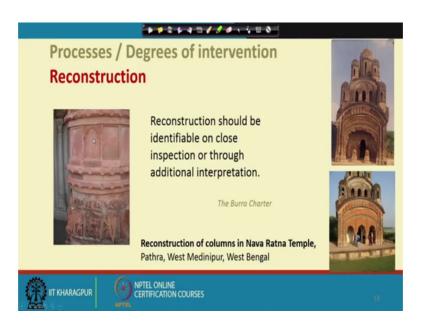
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As I said that there is should be sufficient evidence to reproduce to the earlier state. Now, what is the earlier state which part of the earlier state that needs a sort of a historical archival archeological research. And now one such example we can found that as you know that the in Kathmandu, there is in the earthquake and a lot of structures normal structures, historical structure, religious structures have been demolished. So, as we can see that there the reconstruction work Boudhanath Stupa damage which was damaged in

2015 earthquake it has been reconstructed because entire drawing original documentations are there. And it sort of represents and it has a value to the people. So, it has been reconstructed. So, there are the various situation where reconstruction can be done. Reconstruction can be done for a part of a structure can a part of a building or sometimes for the entire structure, this reconstruction is possible.

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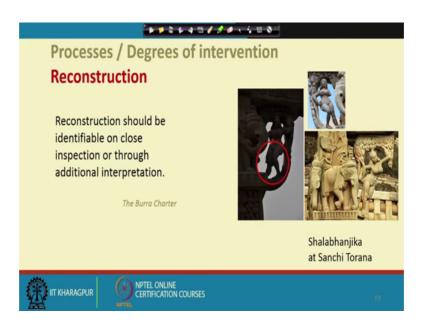


Now, the ethic says or the principle says that the construction should be identifiable on close inspection or through additional interpretation; that means, if it is done reconstruction is done only for a part of a structure or as part of a sculpture thing that it should be identifiable very clearly at least when see in close contact. So, in this case, we are again bringing back the Phatra temple which is in Medinipur as we can see that there the columns were not there, the column has to be reconstructed because it was a load bearing. It had was taking the entire load if the columns were not reconstructed, they are the structural elements they had to be there and how that will be rebuilt say you can see that it has been rebuilt totally and so that the structure has been saved.

Now, while doing this reconstruction according to the original profile and other things and there are also a crucial issue or decision which had to be taken that what will be the decoration of this the bricks were built according to the specification. There were some sort of decoration. As you can see that that from far you cannot make out because the original divisions and the profiler came, but when you see in close sort of from close

quarter, you can clearly see that which part is reconstructed and which is the original. This is very very important maybe because we are talking about the historical structure and the authenticity and interpretation is very important that people should understand that it is original and this is a reconstructed part, so that sort of a clear message should be told to the viewers.

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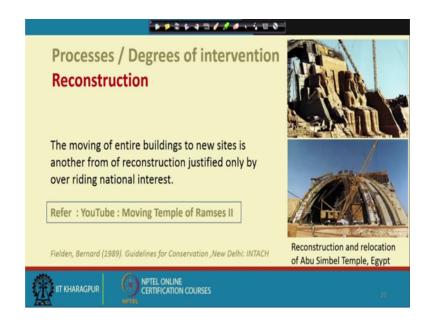
I again bringing back because we are talking about the decoration when we should go for reconstruction. Again I am coming back to Shalabhanjika of Sanchi Torana. You see that in this case these structure is quite intact, it is a beautiful structure. These are part of the tyrannous, but in some of these sculptures, partly, they were damaged. So, what happened that when they were partly damaged what they say did is that they sort of a constructed or reconstructed part of the limb. And you can see that very close think that it is quite distinguishable that this has been a new addition. Now, the question comes were in Phatra we are all saying that that the column has been reconstructed it was necessary, but in this case I doubt whether it was necessary, because it was not load bearing there is nothing sort of it could have been kept without that structure.

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Because you can see that in some of the part that broken part is there, because it was not carrying any load. So, it was really not necessary to reconstruct this part. So, in such cases reconstruction which is really a very extreme step even for that part is not desirable; it could have been kept just like that; it would have been more authentic rather than making it out of fiberglass and keeping it like that. So, there are different sort of a situation one has to see case by case, and see that whether it is really necessary or whether it can be avoided. And whereas, in Phatra it was really necessary in Sanchi Torana it was really not necessary to make that.

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There are more sort of a challenging cases of reconstruction and one of the very very well known example is that the which will of Abu Simbel Temple. The moving of the entire building to new site is another form of reconstruction justified only by overriding national interest. And he said as you can see that Abu Simbel Temple in Egypt, they it was really getting flooded up because that is Abu temples built and that is Abu temples necessary for to change the draft condition of the that country and it will change the economy, so and because of that it was sort of threatened.

And then there was a decision and the people from all over the country many many nations came and extended help and cooperation to really shift the entire temple to a harlot and how it was done not only one structure. It was not only the temple of Ramses; there were many many other structures. And it is a really very very interesting challenging case that how it has been done. And you can see that they are rebuilding the structure, and they are shifting it. You can see that I request all of you to see that because BBC has made four parts movie on this moving temple of the Ramses. And it is very interesting you will understand what that reconstruction means when you are to shifting the entire structure to some other side and again that decision is very crucial that when do you take this decision.

So, we have discussed the various approaches of conservation. We have talked about indirect conservation, we have talked about preservation, we have talked about consolidation, we have talked about restoration, we have talked about adaptive reuse reproduction and reconstruction. These are all various approaches of conservation and under the broad umbrella of conservation. And there is no sort of a specific rule that which approach is the correct one. This is very much related with understanding the significance of the value and which approach should be taken. And in the same structure various approaches can be adopted like Phatra temple, we have seen reconstruction, preservation, consolidation, so these are the things which has to be tested there as I say that there is no universal answer.

One has to go case by case and see that what approach is the best and for the significance or the value which is there. So, this brings us to the conclusion of these part of this that what are the different degrees of intervention and what are the various approaches for the conservation.