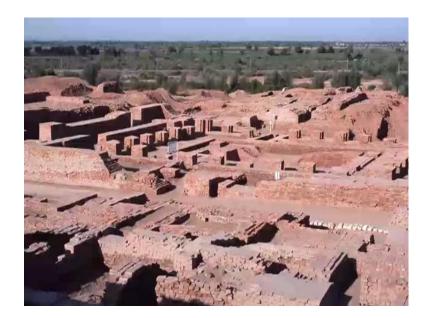
Introduction to Indian Art – An Appreciation Prof. Soumik Nandy Majumdar Department of History of Art Indian Institute of Technology, Kanpur

> Module – 03 Forms of Indian Architecture Lecture: W1 – L3

Welcome to MOOCs on online course on Introduction to Indian Art and Appreciation. Today is the third module of the first section known as Introducing Indian Art, and this module is on architecture. Well, Indian architecture manifests itself in varied ways. There are cave architectures, there are structural temples, you find huge Stupas, you find forts and fortresses palaces, residence buildings so on and so forth. And it is known that Indian architecture is as old as the history of Indian civilization. However, the legacy of Indian architecture goes back to one of the earliest civilizational periods of India known as Indus valley civilization.

And interestingly the kind of examples of architecture we get there is hardly anything to do with either temple or cave architecture or Stupa. Of course, remains of houses, dwellings, residential buildings have been found, but perhaps the most striking aspect of Indus valley civilization architecture is with regard to their innovation in terms of building, not just one or two architectural pieces, but a whole city and not one, more than one and two of those cities are very well known to us known as Mohenjo Daro and Harappa.

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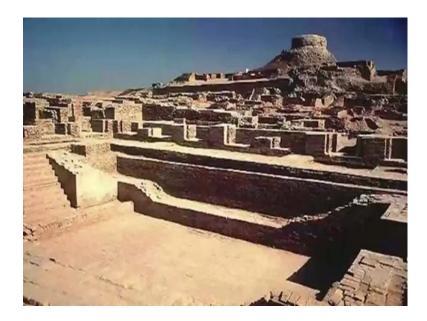


So, when you look at the ruins of Indus valley civilization, whether at Mohenjo Daro or Harappa, you find within the remains and made a lot of bricks structures, lot of small little walls, lot of brick barriers, various remains of architectural spaces built to satisfy very specific purposes. In fact, we must remember that throughout the history of Indian art, let us look at the 5000 years of history, this is a very exceptional example of architecture, where you get the ruins of one whole city.

Now beside the two very famous ones Mohenjo Daro and Harappa, off late, we have also began to discover ruins of Indus valley civilization cities also this part of a country in India, for example, in Rajasthan in Gujarat and one particular called Dholavira in Gujarat, has emerged as another very important sight, if not as big as Mohenjo Daro Harappa, but as rich as Mohenjo Daro and Harappa of course.

So, the very first image of the ruins of Indus valley civilization, gives us an impression of a huge city, a huge urban setup. And obviously, the demands of an urban life, required the people of Indus valley civilization to come up with extremely sophisticated technology, may not be what we understand technology in the modern terms, but the kind of technology, they require to develop to meet the demands of urban civilization and they did it. So the ruins of Mohenjo Daro Harappa are testimonies to the technological development, the technological knowhow, as well as their architectural know how and of course, their impeccable knowledge of city planning.

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In fact, apart from the remains of house, building, dwelling places, storage buildings, granaries, we have also come across one of the major attractions of Indus valley civilization, in terms of it city planning and architecture innovation and that is known as the great bath.

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## Houses

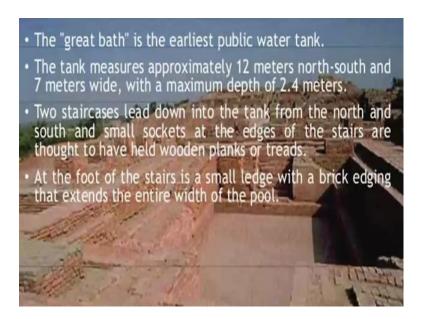
- The houses were of different sizes varying from a palatial building to one with two small rooms.
- The houses had a well, a bathroom and coverd drain in the street.
- The houses were furnished with paved floors and were provided with doors and windows.
- The roofs were made of mud, reed and wood.

Now, before we talk about the great bath. Let us look at that is some of the significant features of the architectural ruins that we have discovered in Indus valley civilization sites. Now it appears that the houses in Indus valley civilization and particularly in

Mohenjo Daro and Harappa, where of different sizes varying from a palatial building to very small houses with only 2 small rooms. Most of the houses had a well to draw water from, a bathroom and a covered drain in the street.

And it is known that Indus valley civilization and particularly Mohenjo Daro and Harappa had one of the oldest drainage systems in the history of the world. And most of the houses were probably furnished with paved floors and were provided with doors and windows. The roofs were made of mud reed and wood. This is just a very brief description of the evidences that we have found in these two cities in terms of architectural and city planning.

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Coming to the great bath, once again the great bath definitely served the purpose of a public space. And to maintain that public space, in order to make the public space not only active, but a usable space they have looked at all the meticulous details of an architectural complex with the kind of knowledge and understanding which is enviable even today.

In fact, the great bath is considered to be the earliest public water tank. Interesting! The tank measures approximately. Now look at the dimensions, the tank measures approximately 12-meter north south, and 7 meters wide with a maximum depth of 2.4 meters. That is a huge space. 2 staircases lead down to the tank from the north and south and small sockets at the edges of the stairs are thought to have held wooden planks or

treads. Look at the technological details they have gone into in order to make this great bath and user friendly space.

Now at the foot of the stairs is a small ledge with a brick edging that extends the entire width of the pool. There are many such details found in this great bath which still being studied by the architects and historians from all over the world. And they are yet to fathom the fact that how did 5000 years back people could actually come up with technical innovations of this scale.

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Now, we can move further and look at a few examples of one of the major categories of Indian architecture known as cave architectures. Now this of course, does not mean that straight away they were using the caves either as a dwelling place or as a religious place. No. Most of what we know or call cave architectures are actually rock cart or scooped out spaces from level rocks solid living rocks. Now that is a kind of incredible task. Because you have a monolithic rock solid rock, no cave, no natural cave, then the tools that, you have that your disposal are very simple chisel and hammer with that you start scooping out portions of rock from a solid inert huge rock or a mountain. And you create caves with architectural details, with interior details, including even pillars ceilings beautiful walls all with carvings integrate carvings.

And later on you also have like, for example an Ajanta, not only carvings on the pillars or on the gate ways, but also paintings. So cave architecture this whole tradition of cave

architecture in India emerged as a very important architectural tradition despite the fact that building or carving cave architecture was definitely a difficult task which engaged not only lot of labor lot of time, but also lot of energy, and a very clear conception of the entire architectural design. Because we need to remember, that when we go further down the chronological line and look at what we call structural temple architecture, there you always have the option to correct to revise to go for certain remedy, if there is any mistake, but as far as this cave architecture are concerned, you cannot rectify your mistake. Every hammering every chiseling has to be correct perfect and it should be the last chiseling.

So, this makes a whole task of building or scooping or carving cave architecture immense the difficult, but still it went on. This tradition was alive for almost 1000 years in India and it is interesting also to note that most of the cave architectures belong to Buddhist religious faith. Buddhist monks with the help of probably hundreds of labors and carvers and architects made this cave architecture mostly either to dwell to be used as places, where they would live, or as places of worship. Those cave architectures; I mean Buddhists cave architectures which are meant or built as a worshiping place are known as Chaitya caves. And those Buddhist cave architectures are meant to be used as dwelling place are known as Viharas.

So, basically in India as far as the Buddhists cave architecture is concerned, we have two kinds of cave architectures, Vihara where monks are to live and Chaitya where monks used to pray worship. So the moment you find an icon and in most cases it would be an image of Buddha inside a Buddhist cave architecture, immediately you can say that this is a Chaitya cave. And if you find caves without any icon without any image of Buddha it has to be a Vihara, where monks used to live and practice Buddhism. Now this image is interestingly one of the earliest examples of cave architecture, and that is from Bihar.

Once again remember, what we were discussing in last 2 modules geography and chronology. Though most of the famous well known and most of the clusters of cave architectures are found in western India and particularly in Maharastra, one of the earliest cave architectures, Buddhists cave architectures known as Lomas Rishi cave is interestingly found not in Maharastra, but in Bihar. This is that this is.

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Now, the next one is also an example of a pretty early example of cave architecture Buddhists cave architecture, but this is again found not in Vihara not in the eastern part of India, but in the western part of the India in Maharastra. And this is also pretty early let us say 2nd or 3rd century AD, but by then the architectural ideas and the architectural abilities the technological facilities have improved to an extent, where the cavers could actually make 2 storied cave architectures with lot of details ornamentations and if we have a chance to go inside and see the interior of the caves, the interior of the caves have also become very gorgeous very elaborate. And it is unbelievable once you are inside any cave that you are actually inside the womb of a mountain. This is another example of another cave from western India.

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Now, this image this particular photograph gives us an idea or an impression, that each of this caves this carved caves are actually built inside the womb as it were of a huge mountain, within the solid rock. And this makes these cave architectures kind of marvels of the history of architecture.

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This is another incredible historical sight in the history of Indian art, very well known as Ajantha. And here from this distance you can see not one or two, but a series of caves carved one after the other of varying sizes and also in different scales. And this was built

in 5th century AD most of the cases in Ajanta built in 6th century, 5th and 6th century AD. And just 2 or 3 were built in the first century AD. So by 5th century AD this Buddhist cave architects knew how to handle elaborate spaces and very decorative interiors as well as exteriors.

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This is from south, talking about the geographical expansion which we discuss in the last module. While we were talking about the western Indian Buddhist cave architectures the very next slide that we are looking at now is from south from Karnataka, a place known as Badami, and interestingly this is not a Buddhist cave. It is a Hindu cave architectures built in 7th and 8th century AD.

So, though it was started by the Buddhists faith, but it was adopted by the Hindu religious sects as well. And that is a reason why we find some of the exquisite and wonderful Hindu cave architecture as well. For example; in Badami the image that you looking at right now and another very well-known example of Hindu cave architectures will be found in Ellora on which we have a separate module all together in the later part of our course.

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This is Ellora. Just to give an impression of the fact that slowly gradually cave architecture or let us say the cave architects are now able to handle huge spaces. There able to manage massive rocks and not only to conceive, but also actually to execute not just an interior of the cave, but they were able to now, scoop out huge temples out of this mountains and rocks with elaborate designs ornamentations and sculptures on their walls.

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We move away from cave architecture, and begin to look at a few examples of the next very important category of Indian architecture known as structural temples. So the distinction is very clear. Where is in cave architecture you find that the architectures are actually carved out from a solid existing rock or a huge mountain. In case of the structural temples the architecture is built up. Literally built up unit by unit probably most cases by using bricks and in certain cases they have also used stone slabs. Whatever it is, it has to be built up so elevation now becomes a very important aspect for these structural temples.

The image we are looking at is considered to be one of the earliest examples of structural temples in Indian art history. Though this is from Gupta period that is as late as 5th century AD and this is located at a place called Bhitargaon very close to present day Kanpur. And you can see already that the architects, they are now able to handle conceive and finally, execute and materialize their idea of structured temple in a very perfectionist way. They have already perfected the art of structural temples in 5th century AD in this small temple at Bhitargaon.

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This is also very early example of a structural temple found at Sanchi though originally Sanchi belongs to Shunga period, but because that site was active over the long period of time. So when or during the Gupta period, when the Gupta kings found this place still active so instead of building more Stupas which was the main objective of the Shunga

dynasty kings as far as the Sanchi was concerned, the Gupta kings at the same site they started building structural temples, again in 5th century AD.

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Quickly it is the same place at Sanchi, we also get to see Stupa as Stupa is another form of architecture which is neither a kind of space where you can go inside like cave or a structural temple usually caves have a huge interior, at least a quite a big interior in most of the caves you find interiors. In structural temples if the interiors are not big, but at least you will find and in a sanctum or what in Indian term is known as Garbhagriha.

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But, in case of Stupas; Stupa is a peculiar architecture which is absolutely solid huge big with no space or no possibility to go inside the circular dome. You can of course, have what they call a circumambulation. You can make a round around the Stupa. You can look at the railings you can look at the gate way which is known as Gurana, but you cannot go or enter inside the solid Stupa. Stupa is found in more or less similar or slightly varying shape not only in India, but also in other parts of south India, South East Asia also where Buddhism spread and Buddhism became a very popular religion later on.

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All along the structural temple the tradition of structural temple also gradually improved, and it kept improving itself not only in terms of it is technological or architectural knowhow, but also in terms of it is design that is very important. So this is one example not very early, but still an early example of a structural temple in Bhubaneswar.

Where you see that now the structural temple does not mean just one simple block of building, but it can also have an entrance, it can also have a surrounding wall, and it can actually develop itself into a huge complex. And this is what most of the architects of the architects of structural temple in ancient India where looking at. Not just to make one simple block of building, but to develop the space into a huge temple complex.

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The one that we are looking at right now is known as Mukteshwar temple in Bhubaneswar Orissa. Next one is in south India in Karnataka known as the Aihole, durga temple at Aihole. Here it is modern days following the principles of structural temple, but look at the shape a very peculiar shape, where you have a kind of circular movement all around the building, not a rectangular shape. So experiments now are happening all over India right from 5th and 6th century AD onwards, which regard to how you conceive design and build up the structural temples in different ways.

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And then we come to extremely elaborately designed temple architectures like this one known as the Lingaraj temple in Bhubaneswar Orissa. As I was saying that now, these structural temples are evidences of this idea, that these are no more conceived as just mayor blocks of buildings, but as elaborate architectural complex.

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Hence various kinds of details are coming up in order to fit the bill. And we also have very peculiarly shaped architectural specimens from isolated places like Orchha. They are very royal; I mean they are not strictly so religious they are like palaces belonging to the kings of Orchha.

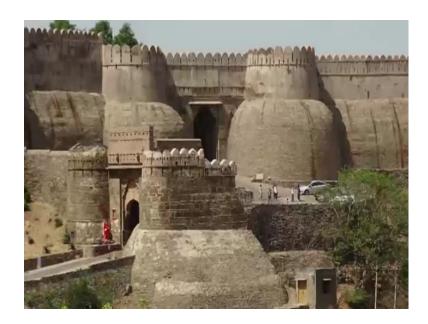
So apart from religious buildings in the history of Indian architecture we can also expect to see non-religious secular buildings as well like palaces Hawelis and various kinds of architectural structures without any religious purpose. In fact, Hampi in Karnataka would be one such wonderful site to visit where you can see the co-existence of religious architectures and non-religious secular architectures within one single place.

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This temple known as the Virupaksha temple is located at Hampi. And beside this temple there are also several a numerable architectural pieces which are not religious at all, but meant to be used in a social life in the secular life in the royal life of the people.

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Apart from the temple architectures cave architectures and religious architectures, we also have this kind of what to say political architectures. I mean these are not religious, but these are meant to protect the kingdom, which are generally called or known as forts. This is one such example of forts Kamalgad fort.

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This is of course, very well-known Agra fort. Again this is another fort very well known as Daulatabad fort in Maharashtra. And then of course, we have this wonderful tradition of Islamic architecture in India.

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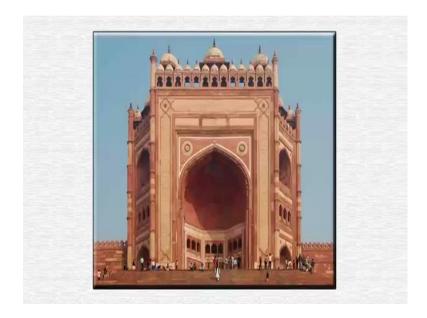
And one of the most famous and world renowned examples is of course, Taj Mahal, but not only Taj Mahal thought this period that is from Sulthanic period onwards, through the Mughal period on which we will have a separate module very soon.

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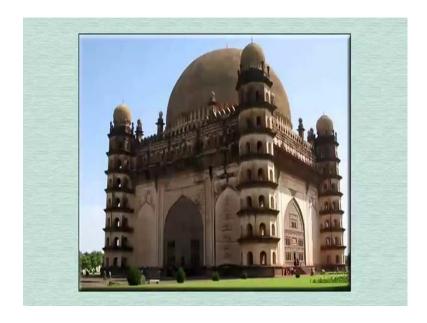


We find some of the most marvelous and most intricate architectural pieces either in the form of a mausoleum or in the form of a Buland Darwaza like this one Infatehpur Sikri.

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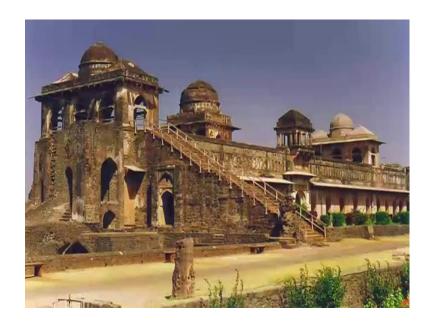


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Or in the form of a tomb like Gol Gumbaz, or in the form of a beautiful palatial building called Jahaz Mahal in Mandu.

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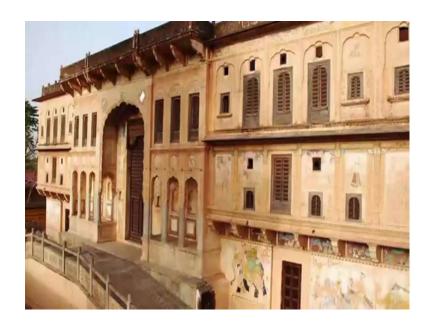


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Or in the form of what is known as Bara Imambara in Lucknow or simple palaces can also be considered as what studying when we are looking at the history of Indian architecture, which are neither a kind of let us say testimonies of huge political authority, they are not reflections of great religious authority, but they are simple palaces belonging to very powerful and of course, rich feudal lords like this one Padmanabhapuram palace in Kerala.

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And of course, India in particularly the western India Rajasthan and Gujarat have number of this beautiful buildings architectural worth looking at architectural pieces known as Hawelis.

And I would suggest given a chance all of you must visit at least one place one place in Rajasthan called Shekhawati in order to see the elaborate decorative and innovative examples of secular architecture, which kind of draw our attention and not only in terms of their architectural variety and design, but also in terms of their zeal, zeal of the patrons their owners, to keep on building beautiful Hawelis throughout 17th 18th and 19th century.

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And what we are not discussing not mentioning today, but I must let you know that whenever we get a chance, we should also look at that that is the rural architecture, because throughout India from north to south, from east to west we have wonderful variety of rural vernacular architectural examples.

Thank you.