

Indian Art: Materials, Techniques and Artistic Practices
Prof. Rajarshi Sengupta
Department of Humanities and Social Sciences
Indian Institute of Technology-Kanpur

Lecture-11

Hello everyone, welcome to the session module 3 and that is also week 3 and this week and in this module will be talking about pigment. So, as you can see that I mean our modules are arranged according to the materials and not according to the chronology even though we are loosely following chronology. So, for this module what will do is will go back in time, so if we have started with our module on clay and that had started around like in the third millennium B.C.

But some of the first or the earliest examples for this module that will probably come from 30,000 years back. So, this is something very interesting that we find that I mean from the very early stage of the human civilization as well as the times from when human beings started expressing themselves pigments have been very important part of it. And what are the pigments I am talking about?

So, here in terms of that I can mention that there are many mineral-based pigments that we find around us. And those are the ones became the vehicle for the people from the prehistoric times until very recently to express themselves in form of different kind of paintings, drawings and so on. So, what all material that we find is that, for example if there are iron or ferrous have the minerals.

So, from there we can extract yellow if there is a less of iron content or black and gray if there is more of the iron content then we also have manganese and manganese also produces rich colours. So, for example for the dark brown or for umber colour we find that manganese and iron or ores. Those are the ones which are used for it. So, there are different kind of this mineral ores and those are the ones we find they are been made into the pigments and they are processed in certain ways for them to be used as part of the paintings.

Now in the earliest examples we certainly do not find that kind of sophistication in terms of processing the colours or adding them with binders and so on. However this materials which started being used from 30,000 B.C. As we can see in these examples they were continued to be used until very recently at least until the early modern times and so on before the advent of industrial paint and dyes.

Now this is also something that we have to understand that when I say pigment I am specifically talking about the mineral based pigments. So, for example if I am thinking in terms of yellow and then also if I am thinking in terms of white that will be calcium carbonate and so on, so all of them they are from the mineral sources. Then there are also some of the other mineral based sources that we can find for example terra verte that is the source for green colour and that has been found in abandons.

And such as like the red ochre or the iron oxide and in which we also find that there have been this rich sources which are found around us and all across in the Indian subcontinent which are profusely used for making different kind of drawings as well as sketches and tracings and of course in the paintings and murals. So, these are the kind of materials we will be talking about more and more as part of this module.

And then in the early or in the formative period we will see that how these materials are used in almost as pastel or almost in the raw form and then with time there have been more and more experimentations. And that is how different kinds of this usage of these materials and these minerals had been improvised and they were there in the practice of the people. Now we will start our discussion with some of the earliest surviving examples of these drawings. And they come from the cave shelters or the rock shelters of Bhimbetka in Madhya Pradesh today.

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So, the Bhimbetka caves that we find they are all sandstone rock shelters; we should not be calling them as caves. As you can see on screen that in the left side of the image that they are very specifically they are the rock shelters, so they are the rock formations and for weathering and for different kind of climatic condition there have been these recessed areas which are created in this rocks and that is how the shelters were created there.

So, they are not as deep as a cave can be, so those are the reason why this these particular formations are called rock shelters and not caves as such. But there have been around 700 rock shelters, and which are all made of sandstone. So, these are the sandstone structures that we find and there have been 700 and more or around 700 structures those are there scattered around this place in Bhimbetka which is around some 45 kilometers from the city of Bhopal.

Now what we find there in this rock shelters there have been images and something that we find in the right side of the screen. And all we find that there have been uses of the colors like black, white and red. Red has been used profusely and one can also imagine that why red has been used there so much because if we also see that the location of how minerals are found, so these are some of the areas which are the mineral rich areas.

And for that reason, perhaps the red ochre or this ferrous oxide those kind of materials will be found in this areas without much of effort. So, that is the reason we can find that how these

materials were some of the earliest surviving drawing tools or the drawing media those were employed by these people in the prehistoric times and what kind of images that we find in these cases? So, what we see here for example here we find that there are mostly stick like figures.

And if you can focus on these images that there are those stick like figures and there are animals as well as human representations. And the forms are simplified in which we find that the body is almost an inverted triangle and then there are sticks like the limbs like the hands and feet and then there is also a part which is added to that for suggesting head. And for the animal forms we find that there are clear signs of how those 4 legs are shown as well as the horns and the ears and so on.

So, that is how we find that some of those earliest surviving examples of what we can understand as Indian paintings. They had those ideas about how the forms are different in nature, how a human being is even in its basic geometric form appears very differently from that of an animal. This is also a time that we find that this in these cave shelters between 30,000 B.C to 5000 B.C it is a long time period in which all these images were made.

And when we are saying 5000 B.C it is actually before when the Harappan civilization or the advancement in Harappa actually took place. So, one can imagine that this actually predates the Harappan times and so during this time in the early phase of these paintings in Bhimbetka we find that there have been more images of the hunter-gatherer communities. And slowly there are also transitions in terms of how people they perhaps started moving towards agriculture, so different kind of images started surfacing in these rock shelters.

And of course that how these also became a very important document for us to understand when there was the advancement in the agricultural knowledge for them and when they were more kind of nomadic people and the hunter-gatherer communities. So, in this image that we find here this is perhaps it is about the communities whose lives were dependent on animals. So, interestingly what we find that I mean there are animals but there are also figures who are riding on the animals.

So, it is a sign that I mean these are perhaps not the wild animals we are addressing here but they are much more kind of the domesticated animals. So, they can be horses they can be donkeys and different other animals who can be domesticated, and people can ride on them for whatever purpose. So, this is also something that we find that can be distinguished from many other hunting scenes in which we find that the contestation between the humans and the animals and that goes on.

So, those kind of images that can also tell us that I mean even though in both cases where the animals are domesticated and in the scenes where the animals are seen as the wild ones. In both cases there are humans and animals but their relationship those are also changed and those kind of suggestions are made by this very simplistic drawings. So, even though these drawings are simplistic but they also carry this much of information that tells us about their social cultural setting at those times.

So, from there I wanted to get little more into the use of this material that is the red or the red oxide or ferrous oxide whatever you call it.

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So, what we find here that I mean this red oxide which is one of this earliest surviving pigment that we find in the Indian subcontinent which had been used from the early phase of the Bhimbetka paintings until today. Then there are different kinds of use of this particular material and. So, for

example as we have already mentioned it that this is then used as you can see that I mean in the image in the left side that there are 2 hands which is employed in pounding the red oxide.

There is this object it is a solid object and when it is pounded and grounded then it is made into this fine pigment. So, with this particular object as you can see it is slightly brittle in character and that can be used as a crayon to like draw directly on the surface. So, this is perhaps been the way in which this images were drawn, so this was used as a crayon that how these are found in nature.

And that the suitable objects like this red oxide, these pieces of red oxide those were collected and then those were used with hands for drawing them on the sandstone surfaces. For the chemical reaction however we also find that I mean these images almost became permanent which also made them available to us or else many other images were lost. Now when this particular material that we find that red oxide it was used and how this can be used as a crayon.

At the same time when it is grounded and then that can be made into pigment and that can be used with water or like I mean other binders for applying them onto the wall surface. Similar kind of things we also find for black, so for example there are many sources for black that we have seen. And for example if there are iron rich materials and if there are carbon rich materials, so for example if there is graphite and then burnt tree twigs and so on or charcoal.

So, those are the ones which are also used for as a crayon for drawing onto this walls in the rock shelters and so on. So, if this is one thing and then also the black is something like from the graphite, from all the other like carbon based material. So, those are the ones which also we can find them to be made into pigment and then those are the ones which are used with binder for painting them onto the walls.

Now the other thing we also find that in the later times lampblack is another material that was used and that was also collected from the shoot from the lamps. And that is again it has a tremendous amount of carbon residue for which it is evident that I mean how it produces the black colour. Now apart from black and red which are the prime colours that we find to be used in these images white also appears to be another source.

And for example like calcium carbonate which is found in the nature and there can be gypsum or like I mean materials which has zinc content that those can also be utilized for making the white pigment. Now in this image that the image that we have on screen here in the right side, in this one I wanted to show it for one reason that how this same material that is of the red or ochre the red ore that is used here.

And how this crayon like substance is used here for making images and on the top of that someone else has drawn on it. So, there are some of those overlapped images for example here we can find that how there are these images which overlap with each other. So, this kind of images or the superimposed images they perhaps indicate that this places like this rock shelters were inhabited by people at different stages of time.

So, it is not just like that if there is one group of people who draw on the surfaces and the other people just appreciate but if there are other needs which need to be served. So, in that case we find that people have superimposed their new images on to the old ones. And this is a tendency that we find those started being in practice from this very early times and that had also been there in the later times as well.

And perhaps we can also find this kind of tendencies even today how certain paintings and how certain murals are made on the walls and then they are repainted and those images are renewed with time,. So, these are some of the tendencies that we can find those where they are in the prehistoric times that also makes us think about some of those the similarities between our practices.

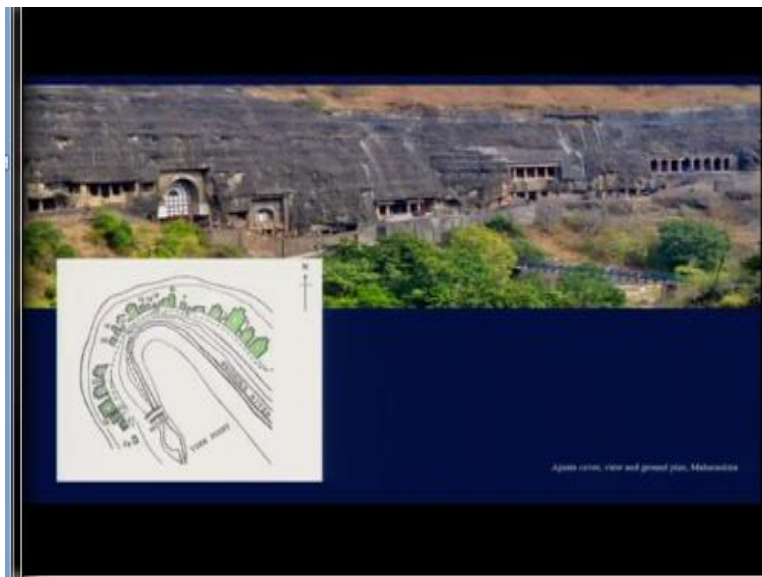
And also how to make correlation between something that we find from this very early historic times and with something that we do even today. And apart from Bhimbetka caves we also have there are few other cave sites mostly in the central India and in part of like I mean for example in southern U.P in the Bandar district as well as in Chhattisgarh we have Jogimara caves and so on. So, those are some of the areas in which we find that there have been this tremendous amount of the images and traces of the pigments which are used.

And it goes without saying red, black, and white these are the ones which also have been very prominent in those sites as well similar to what we find in Bhimbetka. Now from Bhimbetka we will take a leap and then we will come to a particular site which had been tremendously important in understanding the development of Indian paintings and that is the site of Ajanta in Maharashtra.

So, we find that I mean there have been some of these painting activities and even though the pigments or the paints which do not have a lasting lifespan like the ones we can think about for stone and so on. So, some of the traces those are left in the sculptures and there are different other kind of materials. So, from there we know that the painting practices they have flourished and they have persisted.

However a comprehensive set of images that we find from one site in the early phase of Indian art that will be in Ajanta. And Ajanta has been very important in terms of making us or like I mean providing us with this plethora of images. At the same time telling us about the range of different kind of experimentations that the Indian artisans and the artists have performed.

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So, what we find about Ajanta? So, Ajanta is a site from where we find that there has been the development of making of the Buddhist monasteries as well as the Chaitya halls and viharas. So, the Chaitya halls are the ones where we find that I mean the Buddhist monks and nuns and

practitioners they will gather for prayers. And the viharas will be the ones where apart from the halls for gathering there are also individual cells or the places for them to stay.

So, those are the different kind of structures that we find in the site of Ajanta. And something we can also relate to the cave sides that we have already studied in Karla and Bhaja caves. And also that can also be related to the Jain caves of Khandagiri and Udayagiri where this living rock structures served the similar kind of purposes of giving shelter to the monks and the nuns during monsoon and other times.

Now what we find the very typical or like I mean the very specific character of this site of Ajanta is that there is this Waghora river and this entire site it has this horseshoe like character, the shape of it. And there is the river and by the river we can see that I mean how those rock shelters were started being built one after another. And that is how we find that how there have been all these shelters they came into being.

Now all these caves which are the excavated caves and we have already discussed the importance of excavated caves in the Buddhist context in which the living structures are already utilized and not really a new structure is added to these sites. So, this is one of the sign of this excavated caves that we find to be also prevalent in the site of Ajanta. Now what we find here interestingly is that the caves which were there and around 32 caves were built over time.

And the formation of these caves they started being built from second century B.C and it continued at least until 7th to 8th century A.D. So, it was a long time period in which all these caves were built. So, of course they did not really follow the numericals the way we find it like the cave 1, 2, 3, 4 and so on. But there have been this numbering of the caves have been done by the archaeological survey in the 19th and early 20th century for our convenience. Now what we find in this cave?

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So, for example that I mean if we see some of the earliest surviving caves from this site. So, for the earliest ones we find that cave number 8, 9, 10 and 12 those are the ones which are perhaps been made during the 2nd and 1st century B.C. And in those ones, we find that I mean there is cave number 10 which is one of the mightiest caves that we find there. And there we find there is a Chaitya Hall within the cave which you can also compare it with the ones we have already studied in Bhaja and Karle.

And here we also have this Chaitya or this trefoil arch motive which marks the entrance to this Chaitya Hall. And then in the inside we have the series of pillars or the columns which are all excavated from this rock surface and that makes a space for people to gather. And then at the center or not at the center but I mean we can say that I mean towards the end of this Chaitya Hall we find that there is this stupa like form.

And here what happens that I mean it is a memorial stupa; this is not a real stupa which would have the remains from Buddha's body or Buddha's any objects that Buddha had utilized. But this is a stupa which is a reminder of the sacred practice of keeping Buddha's relics in this structure. Now there are those columns and there is also a space in between the stupa and the columns which we can think that I mean that is the place which is utilized for circumambulation.

So, as we have already mentioned that always the circumambulation or the pradakshina that happens keeping our right shoulder towards the structure and then circumambulating it. So, this is something that also allows us to do it here in this Chaitya Hall, it starts from that from the left side and then it goes to the right. And if this is what we find there, there is another thing that is what the worth remembering for all of us that most of the surfaces were perhaps been painted.

So, now we do not have much of the painted surfaces there but some of the places. For example here if you can see that there are some of the remains of the pigments those are there on this columns and there have been paintings in this parts of the wall as well as in the ceiling as well. So, that gives us a sense of the amount of details those were included as part of making this Chaitya halls.

And from cave number 10, the few places where the images are surviving. So, from there we find the image that we have in the left side of the screen and that is there are some of the royal figures that we find that they are perhaps reaching the Bodhi tree for worshipping it or paying homage to them. And so what we find in this image is that I mean this is a huge leap from what we have studied in Bhimbetka.

Because I mean mostly the kind of images that we found there those are the stick figures and from there, there is a huge leap. Of course I am not suggesting that there had not been any other experiments. But based on the kind of evidences that we have, so in that one what we find that I mean by 2nd century B.C and by 1st century B.C around this time the idea of the human being, the idea of anatomy, the idea of how to represent the human beings had been transformed drastically.

And what we find in this images is this images have tremendous amount of naturalism, the all the physical features of this royal figures have been depicted with outmost care and detail. And that the eyes, the expression that they have on their face, this peaceful expression around this divine tree perhaps, the Bodhi tree. All those things that we find to be embedded in these characters and then they are also done with all the details.

So, for example the details of their turban, details of their ornaments, their dresses and everything else and we also see that there is a high degree of modulation in their skin. So, for example how the three dimensionality of the faces and the body parts are shown by showing the slight hints of shadow beneath their eyes by their noses and so on. So, that gives us a sense of this three dimensionality on this two dimensional painted surface.

So, something that is these are the things that we find that during this 2nd century and 1st century B.C. The artisans in Ajanta had already been informed about the minute observations of the human beings and different kind of beings around us and how those can be implemented in their superbly drawn and painted images. Thank you.