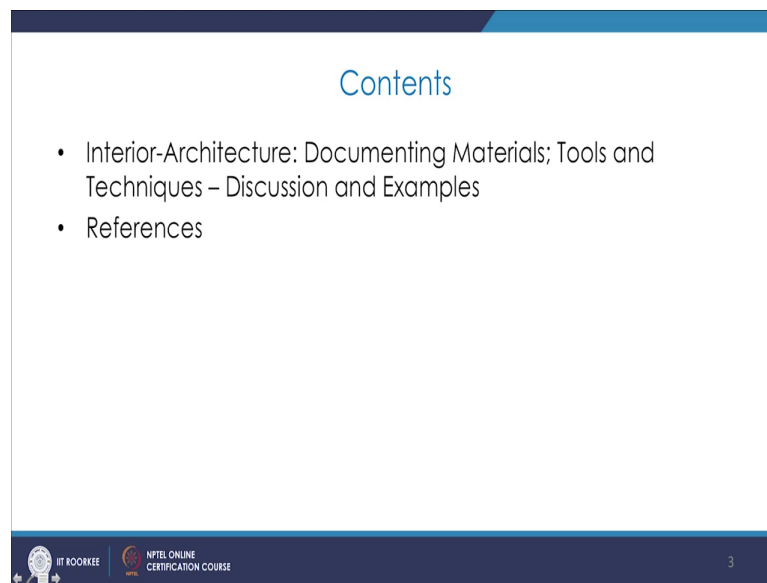


**Role of Craft & Technology in Interior-Architecture**  
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**Lecture – 08**  
**Interior-Architecture: Documenting Materials; Tools and Techniques**

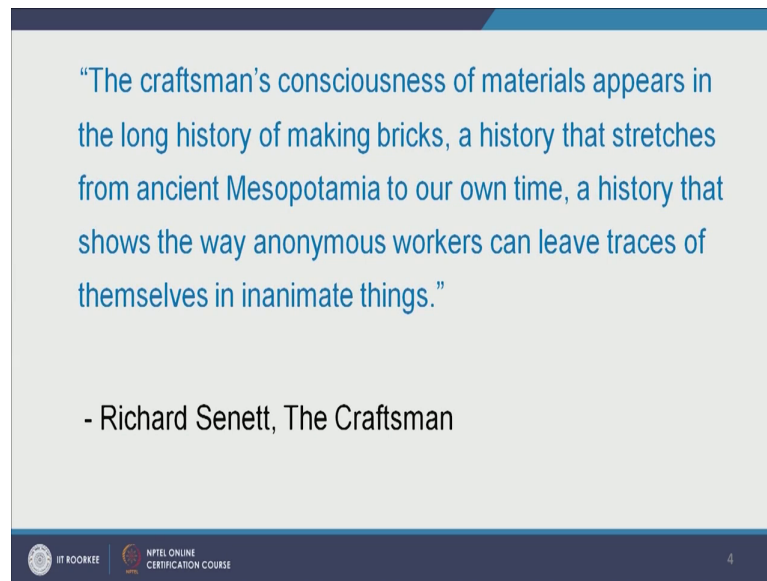
Namaste! Hello everyone welcome again to my NPTEL course “Role of Craft and Technology in Interior Architecture” today we will be talking about module 8. So, module 8 talks about establishing the importance of documenting interior architecture in terms of materials, tools and techniques, because they are very crucial and very important part of making a space creating interior architecture.

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We will be talking about this creation and materials tools and techniques through the examples and towards the end there is a list of reference that will be useful. I would like to begin by quoting Richard Senett who is the author of the very famous book “The Craftsman.”

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Richard Senett says “the Craftsman’s consciousness of materials appears in the long history of making bricks, a history that stretches from ancient Mesopotamia to our own time, a history that shows the way anonymous workers can leave traces of themselves in inanimate things”. Now this kind of you know sums up the intention and purpose behind this module because there is a clear importance, there is a clear emphasis on understanding the anonymous workers and the craft persons who through their knowledge of materials, tools, techniques and ingenious skills have contributed to the making of varied built and unbuilt forms.

So, that is what Richard Senett emphasizes and that is what celebrating and glorifying the skills, knowledge of materials, tools and techniques of the Craftpersons and workers is all about out and we will try to understand this further through a specific case of Radhasoami Samadh it is in Agra.

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Radhasoami Samadh,  
Soamibagh, Agra

More than 110 years into  
Construction, this building is an  
exemplary illustration of  
celebrating materials, tools and  
Techniques (exquisite  
construction details; stone  
carvings; inlays; filigree work;)

Fourth Floor and Above  
(Narratives of Universe)  
Metaphysics  
...Cosmos

Third Floor (Narratives  
of Established Faith)

First and Second Floor  
(Narratives of Spread)  
'Vaani'/'Sarbachans'  
...Society of Environment

Ground Floor  
(Narratives of Founding  
Belief System)  
... 'Samadh'  
... 'Satsang'

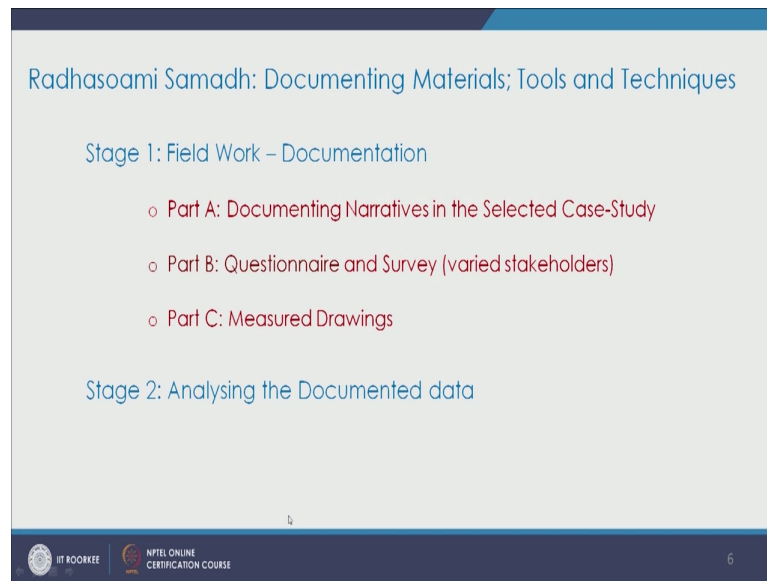
Interior-Architecture: Documenting Materials; Tools and Techniques in Radhasoami Samadh, Agra  
Source: Course Coordinator

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So, here we see this building a huge magnanimous building it is called Radhasoami Samadh it is constructed by the Radhasoami group, it resonates with their philosophy and it is a very interesting building. It is being constructed you know since more than 110 years and it still continues to be made and this building I find as an exemplary illustration where you know there is a celebration of materials, tools, techniques and when we go through this building will see the drawings and other details will see exquisite construction details there are lot of interesting techniques; stone carving, stone inlay, there is filigree work that we see in this building.

So, it is gamut of you know space making materials, tools, techniques ingenious skills and it is just kinds of packages everything about which we have been discussing in this module and will also talk about in the next modules. This is the work that I did for my post graduate dissertation at CEPT University in Ahmedabad now it is also converted into a book and we will be discussing the specification detail to understand this module.

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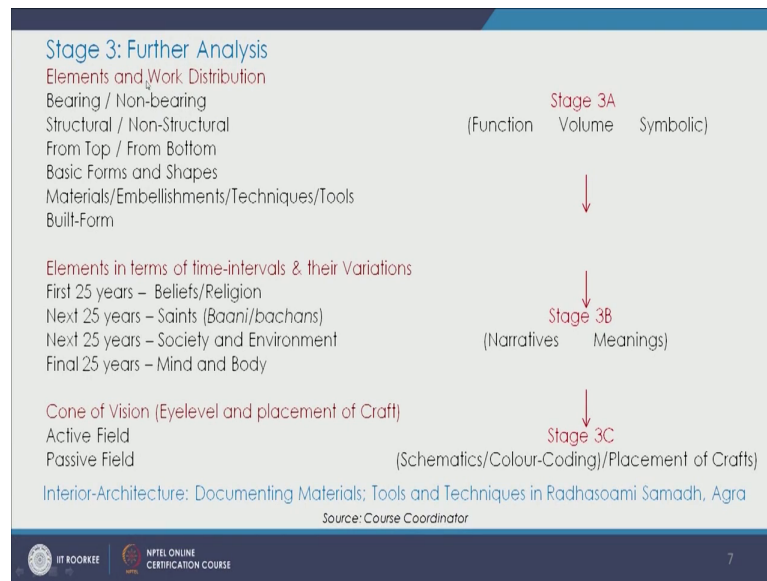


So, there the documentation when I see the documentation of the interior architecture the materials tools and techniques it was done in varied stages which were quite extensive you know in their own ways. So, stage one concentrated on the field work and documentation which was further divided into 3 parts. So, the documentation of narratives and the stories were also done, what are the kind of legends the stories which go hand in hand during the construction of this built form and the stories which are related to the philosophy of the Radhasoami group and how that philosophy you know reflects in the built form in the construction so documentation of those kinds of stories.

Second part was the questionnaire and the survey so varied stakeholders you know the devotees the users, the craft persons, the architect, if at all there were any involved civil engineers. All of them were interviewed and everyone's perspective was understood and also the contribution and role you know all of them what role did they play and then the set of measure drawings was done few of these I have already shown in previous modules the glimpse of them. So, this was documented actually for the first time as far as the measure drawings are concerned. Second stage was analysing the data that was documented on site and stage 3 was further analysing all the data and the construction in terms of what are the elements and how is the work distribution done.



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So, you know what are the bearing elements known bearing elements structural or nonstructural, where does the construction begin from top or from bottom? What are the basic forms and shapes that could be seen in the interior architecture of Radhasoami samadh? What kind of materials, embellishments, tools, techniques could be seen could be witness could be learnt through this structure? And what is the entire built form about what is the metaphysics behind that? Then also elements in terms of time intervals and their variation so if we see the span of say 100 years how did the time interval also relate to the making of the building.

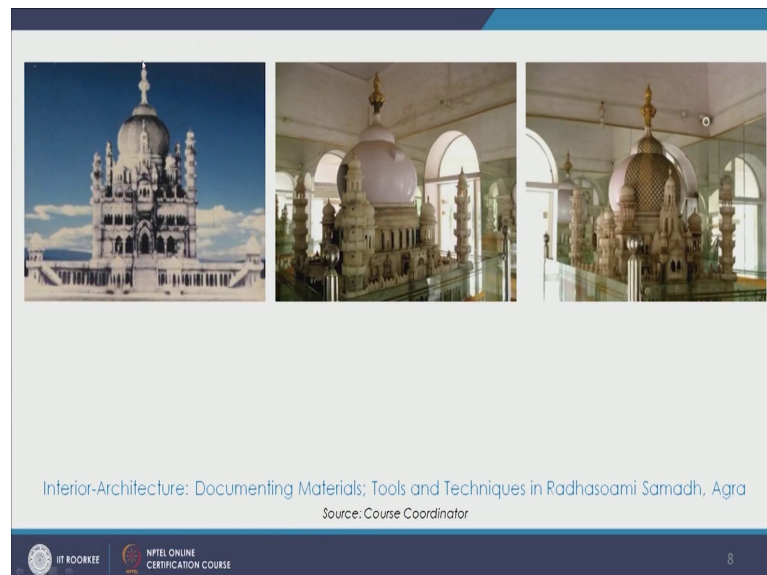
So, like first 25 years the major stress was on establishing their beliefs and the religion because this building is a spiritual building and it ideally talks about the philosophy of the Radhasoami group so i will not get into the details of that, but the initial 25 years the devoted to the establishment and the spread of their belief, next 25 years also it continued. So, there were lot of their scriptures the *Baanis* and *Bachans* which were written you know inlayed and carved and they also helped in spreading the building their belief systems.

Then another 25 years it was talking about the society and environment, like having already established their beliefs how to contribute back to society, how to talk about the nature and harmony of the people and last 25 years it also relates to their philosophy they

are talking about the mind and body like the faith is already established and in the last 25 years what kind of construction goes into the building that reflects that the that their philosophies already established. So, in last 25 years what kind of work do they do. Last was sort of technical analysis where the cone of vision you know and if I see through this cone of vision where is my eye level and with respect to eye level where certain where are certain techniques and craft forms placed.

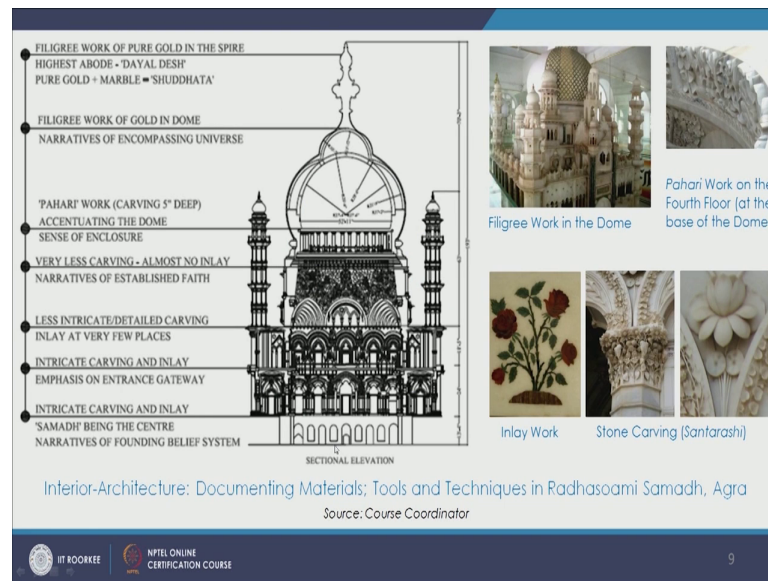
If I stand on the ground floor and the dome is say 193 feet above. So, can I see what is being carved on the dome standing from here those kind of details and technical placements they were observed and it was also documented. These are some pictures.

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This is the elevation this shows the entire built form over here it is quite eclectic and very very magnanimous, this was a model here it also show some details this is the dome from one side and this is from the another side so, just few pictures of the built form.

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Yeah this is a very interesting slide because we are talking about documenting interior architecture, materials, tools and techniques. So, if we see the sectional elevation over here right. So, this is from here till here to the top of the spire from the ground floor it is like 193 feet and like a while ago I was explaining the placement of techniques in material and crafts you know considering the cone of vision and from eye level where a certain craft form or a material is placed those details can be understood here.

So, here this is the spire or the finial and this is the dome over here. So, if we see the spire the top here there is exquisite filigree work, now this is the picture here if you can see this is the filigree work which is done filigree work is a very delicate work. It is a metal work and usually beads and wires or a combination of both is used in this kind of intricate work. So, they are either soldered to each other the wire with the wire or bead with the bead or the combination of them with the other set of the combination or they are soldered to another surface. So, like here there is this stone dome and on that the gold there is a gold filigree work which is done.

So, it is pure gold and it is quite intricate very exquisite and even you know if it is done here at the spire and the top of the dome and I am standing here at the ground floor i can still see it because the scales and proportions and the kind of detailing that has been attended in the filigree work has been deliberately done in a way that I can at one glance

you know just get to see it appreciated and while I am just entering the premise of this Samadh I can appreciate the sheer volume and the details right from the main gate all the way coming to close to this building.

So, those are the kind of you know sensibilities one needs to develop as an architect or a designer or a craft person craft entrepreneur. So that filigree work over here it exists then like here I was talking about here in this part of the dome also filigree work is there if we see the base of the dome here in this picture it can be seen it is called *Pahari* work.

It is the local parlance they call it *Pahari* work and it is a very rich intricate carving which is quite deep 5 inches in depth if we can see from here this you know section. So, it is quite intricate quite a lot in depth and again it is at this level you know at the base of the dome and still if I am standing here I can see it because it is quite deep and the motives and the details are done in such a way that one could appreciate from their eye level standing at the bottom of the building.

Then here if I start like I was telling in one of the slides that initially they were focusing more on establishing this faith and spreading aids. So, if we see the initial 25 years and we focus the ground floor over here. The most intricate of stone carving and stone inlay is found here at the ground floor it is again intricate at the first floor and as an when you as an when we go higher and higher the intricacy is slightly reduced because the faith is already established, they have already made intricate details at the lower levels over here. So, here on the third floor the details are less as compared to the ground floor in the first floor.

Now, the another reason could also be that you know at the time when the ground floor and first floors were getting constructed there were master crafts persons who were more skilled and they had tremendous knowledge of carving an inlay compared to the ones who are working here at this level so, there could be several reasons for that. So, here this is the picture of the inlay work, inlays again a very intricate and detail technique. So, there is this base stone of off-white colour say here marble. So, it is chiseled out the forms are made you know the drawing is made on that the form say this is a rose over here and these are the leaves.


So, they will be scooped out or chiseled out from the marble and this red colour stone which here again is a marble is inserted into that. So, this is inlay technique here we see the pictures of stone carving which is also called as *Santarashi*, some people also called is *Nakkashi*, but *Nakkashi* is mostly associated with timber and here at least for this building all the craft persons identified this craft form as *Santarashi*. So, here this we see a lotus motive which is volumetric and it is in 3 D it is not a flat motif it gives all the intricate details here again at the column capital and the archers here we see exquisite carving.

So, these are all different kinds of techniques which are an integral part of this building and they create interior architecture which is worth a magical experience and all that has been possible because of the ingenious skills of the craft persons, their knowledge of materials the kind of tools that going to the making of it and also the techniques how would one do it until unless they know what are the delicate techniques of doing such kind of artistic expressions.

Which are also technical when we discuss about the eye level their placement and how are they visible to the naked eye standing at the ground floor. So, all these details they go hand in hand and create a magical built form like Radhasoami Samadh, here there are different kinds of marbles which have been used. So, exquisitely talking about stone and the different kinds of stones which have been used over here completely exploring the material properties of this wonderful material we see over here pink marble, which comes from Makrana.

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In Radhasoami Samadh, Marble is used in different colours: white, pink, green, yellow, and other shades as well. It is brought from different parts of India – Makrana (Jodhpur) and Jaisalmer (Rajasthan), Ambaji and Baroda (Gujarat), Gwalior, Nowshera (now in Pakistan). Semi-precious stones for the beautiful inlay work come from the beds of rivers like Narbada, and quarries in Gujarat and South Indian.



Pink Marble (Makrana)      Green Marble (Baroda)      White Marble (Ambaji)

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There is this green marble, which comes from Baroda and then there is this white marble which comes from Ambaji. So, these are three different kinds of marbles that are seen extensively. There are other few kinds of stones that are also being used here so white pink, green, yellow there are some other shades as well it is brought from different parts of India like we just saw there are also few stones that come from Gwalior and Nowshera.

Nowshera is now in Pakistan there are some semi precious stones which are used for the inlay work and they come from the beds of several rivers. So, inlay work has a different set of stones that is being used will see it in the next slides. So, again trying to understand the material properties of stones the different kinds of stones which are available; What are the different shades of colours which are available in them so, it is not just about taking one stone marble but it also exploring the varied shades and variations in the colour and what kind of colour scheme you know can go for this serene peaceful spiritual building.

So, all those explorations were done in this *Samadh* and by documenting this I really think that I became better equipped you know for understanding materials, their properties, how could they be explored for different techniques through different tools and how could they add to the entire experience of space making and living inside them.

So, just like you know the major details of the stones in terms of sizes.

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**Sizes available in Stone**  
2' X 3' X 4' (minimum size)  
8' X 6' X 5' (maximum size)

The maximum size of stone in which inlay can be possible is 9" X 4" X 6"

- Stones used for inlay include *margaj* (pink, green), *aqeeq* and *Neelam*
- One *jali* (trellis) in a railing measuring 4' X 3' takes 6 months to get fully carved, polished and fitted.
- Construction of one frame to fit the stone jali takes around 2-2.5 hours.
- Capital of a double-column with floral carvings takes around 6-7 months in getting constructed.

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Source: Course Coordinator

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Sizes available in the stone when I documented on site the minimum size was 2 feet by 3 feet by 4 feet and maximum was 8 feet by 6 feet by 5 feet. So, these were like cubic feet and they were brought from the queries and then a broken down into slabs and then further worked on site the maximum size of stone in which inlay was possible that you know I came to understand on the site where lot of workers and craft persons were doing their job it was like 9 inches by 4 inches by 6 inches. So, these kinds of details you know when we try to document a piece of interior architecture there are several ways of looking at it you know so not just space making elements not just the user experience.

But material what different sizes are they available in? Are they constructed in a single monolithic piece? or we break them down and construct them in you know parts and then do the joinery and what kind of techniques go hand in hand? which kind of stone is suited for? Which kind of technique like here for both stone carving and stone inlay marble has being used because it excellently supports these too crafts forms and techniques. What kind of tools going to the making of faith? What is the system of work on site? What is the hierarchy of craft persons or workers or karigars? What is the system you know they work with what are the kind of kinds of drawings that are given to them.

Also if there is something that they contribute on their own by their memory and by their imagination. So, it was a very interesting and very engaging exercise for me and it really gave me a lot of knowledge about all these things that I am talking about. So, we were talking about the inlay, stones which are used for inlay. So, pink and green marble which is called *Margaj* in local parlance then there is *Aqeeq* and *Neelam*. So, they were quite good with inlay and the inlay karigars told me that these 3 stones were used throughout the building wherever the inlay work is done.

Another few interesting details like if we see the *Jalis* or trellis in this building there will be some pictures later. So, one *Jali* or trellis that is one unit of the railing and measures 4 feet by 3 feet it takes 6 months to get fully carved polished and fitted. So, we can see the share amount of effort and skills and the time it consumes. So, anything which is so exquisite an intricate and beautiful it to and it is done with hands will take it is time.

So, just to understand the shared amount of time that goes into it I had ask for these details, then another thing like construction of one frame to fit the stone *Jali* itself takes like 2 to 2 and half hours and capital of a double column. So, there are lot of twin columns in this building capital of the twin column we saw in the previous slides which was like you know extensively carved.

So, capital of a double column with floral carving it takes around 6 to 7 months in getting constructed. So, lot of time that goes into the making of it, but the outcome is magical aesthetic beautiful and it requires a contribution of lot of people. I am going to play a small video where the inlay work is being shown.

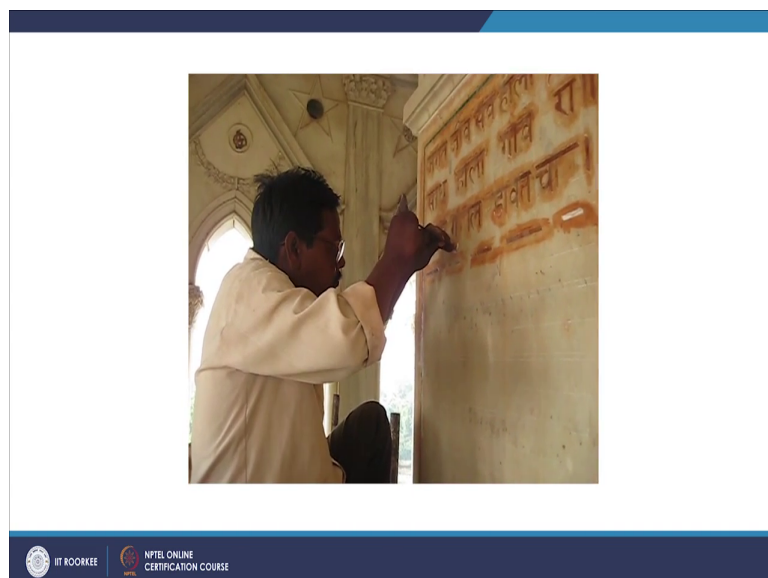


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And this is done by a karigar Pancham ji who is working for this *Samadh* since 1985 till the date. So, he is doing an inlay work on the wall and he will explain how this is done.

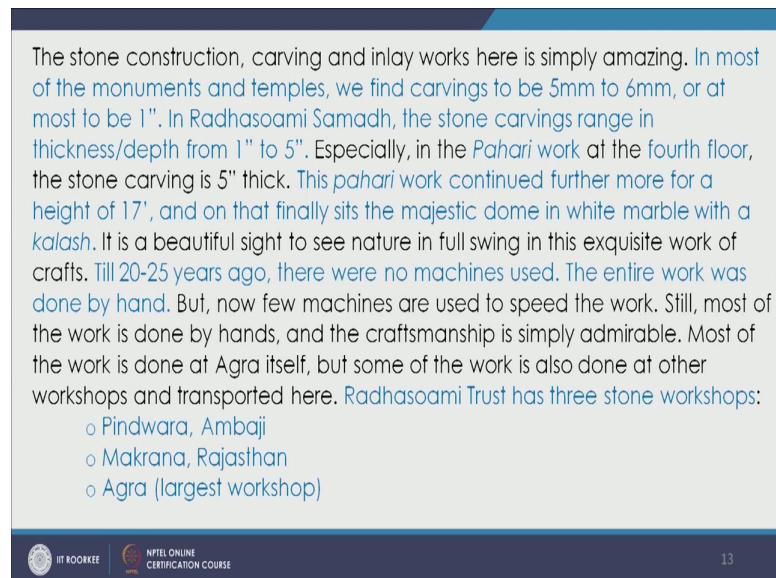
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So, that video clearly showed how much effort and time goes into the inlay work, now talking about the stone carvings because in this building there are lot of stone carvings also which are pretty amazing. So, if we see you know different monuments and temples in India they have carvings 5 mm 6 mm 1 inches deep, but here the stone carvings range

and thickness or depth from 1 inches to 5 inches which is like quite intricate and very detailed.

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The stone construction, carving and inlay works here is simply amazing. In most of the monuments and temples, we find carvings to be 5mm to 6mm, or at most to be 1". In Radhasoami Samadh, the stone carvings range in thickness/depth from 1" to 5". Especially, in the *Pahari work* at the fourth floor, the stone carving is 5" thick. This *pahari work* continued further more for a height of 17', and on that finally sits the majestic dome in white marble with a *kalash*. It is a beautiful sight to see nature in full swing in this exquisite work of crafts. Till 20-25 years ago, there were no machines used. The entire work was done by hand. But, now few machines are used to speed the work. Still, most of the work is done by hands, and the craftsmanship is simply admirable. Most of the work is done at Agra itself, but some of the work is also done at other workshops and transported here. Radhasoami Trust has three stone workshops:

- o Pindwara, Ambaji
- o Makrana, Rajasthan
- o Agra (largest workshop)

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So, the *Pahari* work that I just explain few slides back at the base of the dome which is at the 4th floor level. That is 5 inches thick and it is very very detailed out work it has several motifs from nature and it is very aesthetic. So, it continues for further more height and you know even the majestic dome that you see in the marbles. So, at the base you see the carving and at the dome you see the filigree works so it is a sheer magic to look at it and all of this work is done by hands you know.

So, see till 20, 25 years ago there were no machines used at all the it was all hand done and of course, now there are lot of machines that have come into picture and they make the work of the crafts persons easier. So, they have been installed and now the work is done in balance you know the work with hands and machines. It is not that machines have over powered and the craft persons work cannot be sabotage because the quality and the intricacy and the customised expression that comes with the craft persons work is not possible with the machine.

So, there is a balance of both and they are trying to achieve it. In fact, the Radhasoami trust which is the you know care taker and which under whom the construction is going

on they also have 3 stone workshops. One is in Ambaji Pindwara, then there is Makrana Rajasthan and then there is Agra which is the largest workshop where this building is situated. So, stoned construction, stone details everything that happens on site also has this deep thought of what kind of details you know, where the work, where the workshop should be situated, where the craft persons work throughout the day, how many hours they put in. So, all those details in documentation they really enrich our experiences and learning.

Here this is explained interestingly you know what is the element of process

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Elements/Process	Size	Work Distribution
Stone Carving	No matter how big is the size of the stone, not more than two carvers work at a time. For small works, one carver is enough.	2
Arch	Small (Radius up to 2.5')	1
	Large (Radius = 2.5' - 5')	2
Column		1
Base & Shaft		
Capital		
Jali		1
Jali Frame		1
Stone Inlay	As many as 4 crafts persons can do inlay work at a time.	
	Small (2' X 1' X 6")	2-4
	Large (7' X 3' X 6")	5-6

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Source: Course Coordinator

on the left inside the different sizes and the work distribution like stage 3 which was mentioned initially stage 3 of the documentation. So, if we talk about stone carving you know so, no matter how big is the size of the stone usually not more than 2 carvers worked together and if the work is very small then maybe just one carver is enough. If we talk about the arch then if the radius is say 2.5 feet up to 2.5 feet and it is small then just 1, 1 karigar or craft person is good enough and if it is large say radius 2.5 feet to 5 feet then more it will be 2.

The column base and shaft and capital is 1 *Jali* is 1 *Jali* frame is 1. So, it is very interesting to understand which elements space making element or the process or the

technique in which you know the karigar of the craft person or the mason is involved. What are the size is associated with that element of process and what is the work distribution so, this is understanding the system of working on site.

If we talk about stone inlay than as many as 4 craft persons can do inlay work at a time and it is very interesting like when works in a textile, you know one karigar starts from one end the other one starts at the other and some where they come in the middle and still there is no mismatch they will match wherever they come at the center.

Same way it happens in the stone inlay also, if there is you know the small size of the stone or the inlay work 2 feet by 1 feet by 6 inches 2 to 4 karigars or craft persons are enough if it is large 7 feet by 3 feet by 6 inches it could be 5 to 6 craft persons.

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Elements/Process	Size	Work Distribution
Pahari Work (fourth floor above which the magnificent dome sits)	Each piece of stone Measuring (2.75' X 2.5' X 1.5')	1 per piece
Plain Work		
Cutting the stone according to the required size		
Preparing a Framework - Mortis and Tenon Joints - Marking Space for Carving		1 per piece
Carving		1 per piece
Pre-Erection		1 per piece
Assembly		1 per piece
Erection		1 per piece
Polishing		1 per piece
Dome		
4 Burjs (corners of platform)	24 Pieces (1 piece measuring 8' X 2'9" X 1'; Diameter of Dome = 9')	2
Plain Work		1
Carving		
4 Minarets	16 Pieces (1 piece measuring 6' X 2' X 9"; Diameter of Dome = 6')	2
Plain Work		1
Carving		
On Top	600 Pieces (1 piece measuring 3' X 2.5' X 2'; 12 Rings-1 Ring has 50 Pieces; Diameter of Dome = 53')	2
Plain Work		1
Carving		

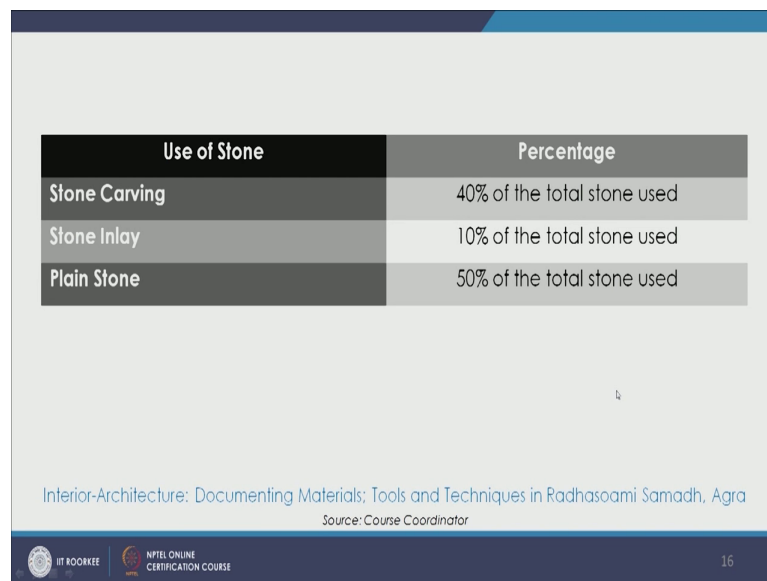
The *Pahari* work that we discuss on the fourth floor it has again some work distribution. So, each piece of stone measures 2.7 feet by 2.5 feet and 1.5 feet and at least one craft person is required per piece. It has some plain work which is just cutting the stone according to the required size preparing a framework giving a mortis and tenon joint in that and then marking space for carving so, this is this all comes under plain work.

So, one person is enough per piece then the carving happens, pre - erection happens, assembly, final erection and polishing so, all that has specific work distribution

mentioned over here. If we see the dome it has 4 towers which are situated at the corners of the platform there are 4 minarets and on top there is plain work.

Here also you know there are different number of pieces of stones each measuring differently with the specific diameter of the dome and for this each specific work there are different number of craft persons which are allotted or working on that. So, this was in very interesting system to understand how the work is happening there.

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Use of Stone	Percentage
Stone Carving	40% of the total stone used
Stone Inlay	10% of the total stone used
Plain Stone	50% of the total stone used

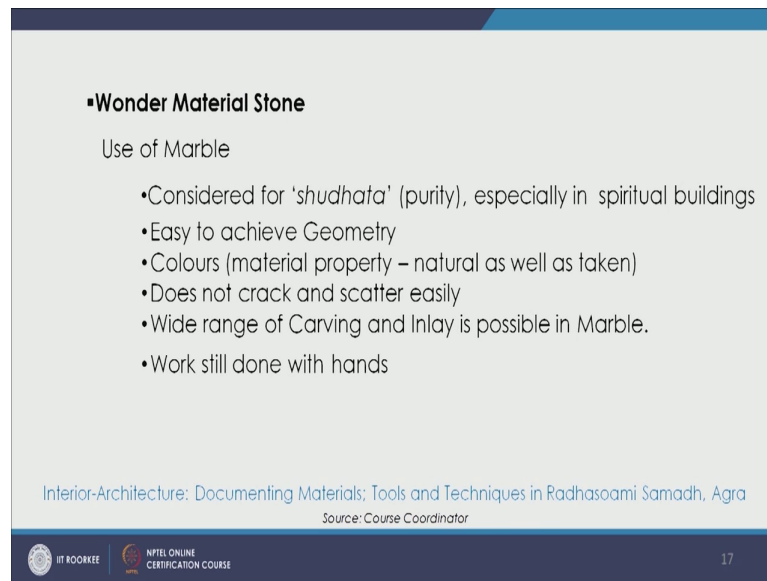
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Source: Course Coordinator

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So, just to sum up where all the stone is used in Radhasoami Samadh and what is the percentage. So, if we talk about stone carving 40 percent of the total stone is used, inlay 10 percent and plain stone 50 percent. So, here if we see almost 50 percent is the technique of carving an inlay that is occupying this building and 50 percent of the total stone is used for other construction purposes and plain work.

So, this itself is in very interesting piece of information that how the material and the associated techniques you know could be tapped their potential could we explored and such an interesting piece of interior architecture can evolve out of that.

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•Wonder Material Stone

Use of Marble

- Considered for 'shudhata' (purity), especially in spiritual buildings
- Easy to achieve Geometry
- Colours (material property – natural as well as taken)
- Does not crack and scatter easily
- Wide range of Carving and Inlay is possible in Marble.
- Work still done with hands

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Source: Course Coordinator

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This is again very useful information, so I am calling this material marble as a wonder material the stone is wonder material and when interviewed would you know why this choice was made for this building they were several things that came up which the people they are told. So, first of all going with the philosophy of Radhasoami Samadh marble is considered pure you know it is known for shudhata, white colour piece spirituality so, that was their primary choice for making this building.

Now, important details you know is it is easy to achieve geometry in stone specially marble then there are different colours in which it is available you know natural as well as they are could be other ways of getting the colours and shades. It does not crack or scatter easily and there is a possibility of getting wide range of carving and inlay in marble and work is still done with hands and there is lot of aesthetic value. So, this stone was used in Radhasoami Samadh for varied reasons which are quite remarkable in their own ways.

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Designation	Work	Work Experience		Total Number
		Old (Around 35yrs)	Young (15-20yrs)	
Head Masons	Supervising the other workers	02	00	02
Stone Masons	Stone Carving	20	20	40
Inlay Workers	Stone Inlay	00	15	15
Stone Fitting	Fitting Stone Pieces	15	00	15
Machine Men	Cutting of Stone	10	05	15
Shutterers & Scaffolders	Shuttering & Scaffolding	00	30	30
Labourers	Carrying Bricks, Cladding	00	18	18
Total				135

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Source: Course Coordinator

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This is another data that gives the information about the hierarchy of the craft persons and workers and masons and what was their work experience how many old people how many young people. So, the total number of you know 135 craft persons were working at the time when I was documenting it was in 2009 all the way till 2010.

So, they were there are like head masons, then there are stonemasons and there are inlay workers, then the workers who do the stone fitting, there are machine men, there are shutterers and scaffolder there are labourers. So, they have different work profile and their like different people from different age groups and there is also a set of you know numbers associated with how many number of people from each of these designations and how they work hand in hand to create a system.

Now, talking about different tools which the craft persons used on site and which they have been using for specially carving the video on inlay explain the tools for inlay and here there are some pictures they talk about the tools that I used for *Santarashi*. So, here, if we see the set of tools over here.

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You know different pictures zoom in and zoom out, this is a set of tools which in local parlance they called as *Narzi* and you know in the local parlance they also have this unit for measurement which is *Suth*. Now one *Suth* is approximately like 3 mm and there are different kinds of *Narzis* which are available, the smaller size actually is called *Narzi* and the one which is the bigger size tool is called *Narza*.

So, they use the combination permutation and combination of these *Narzis* and *Narza* for the carving purpose for the *Santarashi* and other than that like you know we also discuss that there are few machines that have been introduced some machines are used for block cutting and there are some power tools, hammer, the electronic hammer and the drill machine.

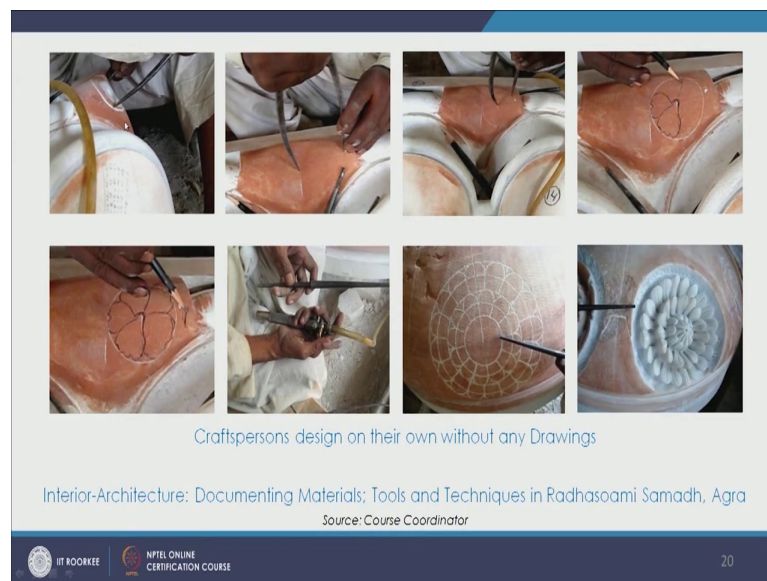
Here what is important is, if we see here in this pictures the machines are used for block cutting only. So, that reduces the time that would have been otherwise consumed in you know creating the cubic feet blocks out of the quarried stone, but the carving, inlay, Pahari work, filigree everything is happened you know so far it has happened through hands and it continues to be hand work which is the most interesting part of this construction in Radhasoami Samadh and which I highly appreciate and respect that



these craft persons were working with them since ages and you know their fathers in grandfathers have worked and the generations have continued and they have got employment and the work is still done with hands very intricately. So, that is just the perfect balance of you know tools and the machines the hand work in the machine work.

Moving ahead these pictures you know this itself is like a story

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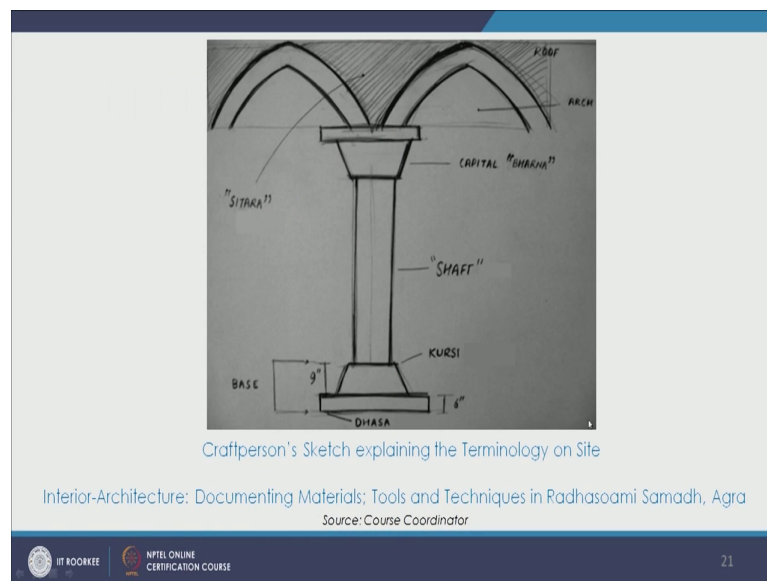
how they start the carving process you know selecting the piece of stone when using their tools this is the compass the *Prakal* with which they create you know circle and the basic ruler pencil plus the *Narzi* and the *Narza* combination that we saw in the previous slide. So, they start making the motif or the design that they want to come out of the piece of stone, here the craft person is making the petals of the flower. I should have put the picture of the craft person also this is done by Prem Singh ji who is working here since 49 years and now adding you know this was like in 2010 so we can add another 5, 6 years to that.

So, this flower is complete over here and when I asked him interestingly who gives you the drawing you know how do you get to make this. He said this is all you know from our memory your imagination or something that we see surrounding us in the nature. So, we do not require any working drawings for you know the designs that we carve, it is

just our own contribution and we enjoy making our own designs. So, here he uses the hammer also. So, this entire design is done and then you see over here how neatly and intricately it is just scooped out and you know the carved from the single piece of stone here in this case.

So, they have their own designs without any you know working drawings or any kind of paper that is given to them interestingly here also in the construction process.

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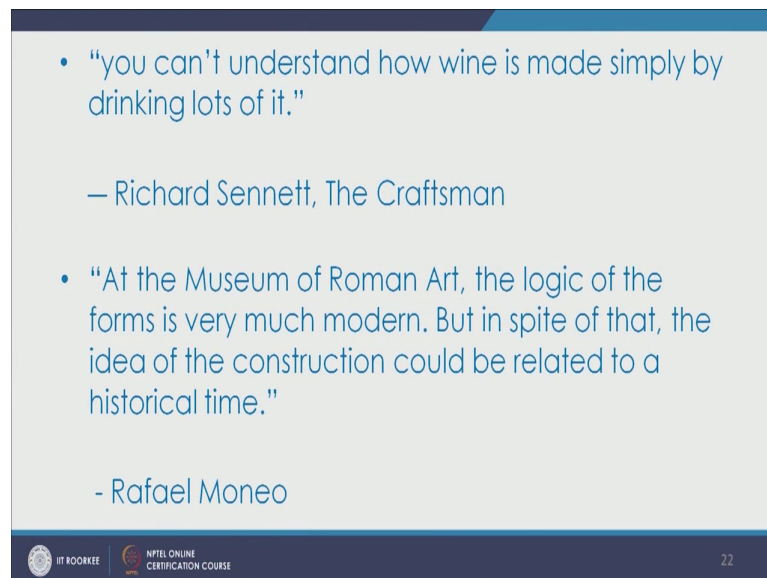


If we see they have their own set of designs and own ways of understanding the construction their own terminology. So, if we say the base the lower part is called as *Dhasa* and the upper part is called as *Kursi*, shaft is the shaft here the column capital they call as *Bharna* and here the triangular pediment is called as *Sitara*.

So, they have their own ways of working they have their own terminology they have their own ways of expressing and understanding the design and their own ways of contributing to the entire interior architecture. And on top of that when we add the techniques and interesting details and exquisite designs you know through carving and inlay and other kinds of techniques an art and craft forms then it creates a unique experience all together. So, towards the end I will just talk about two very enlightening quotes.

First one is again by Richard Sennett from the book the craftsman.

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- “you can’t understand how wine is made simply by drinking lots of it.”  
— Richard Sennett, The Craftsman
- “At the Museum of Roman Art, the logic of the forms is very much modern. But in spite of that, the idea of the construction could be related to a historical time.”  
- Rafael Moneo

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“You can’t understand how wine is made simply by drinking lots of it.” So, just by looking at the end product one would never understand; what is the process that goes into the making of it, what are the different stages, how much time it takes, how many stakeholders are there and you know who contribute to the making of that product. So, it is very interesting to look at that process you know before relishing what the end product is.

Another one is by Rafael Moneo “At the museum of Roman art the logic of the forms is very much modern. But in spite of that the idea of the construction could be related to a historical time.” So, very interestingly what is trying to say is that you know there could be contemporary expression the construction could be modern the interior architecture could have vary typology depending on the era in which it is situated.

But instead of in spite of all this you know the kind of details, the idea of construction, maybe the materials or the tools or the techniques which could be use still in contemporary times. It could be very historical in the sense historical it does not mean that one has to romanticise about the past in the nostalgic about it, but you know learning

from that process and technique and then trying to integrate within the contemporary milieu.

So, there are different ways of you know taking the learning's from the documentation ahead there are different ways in which they are could be tradition and continuity. So, documenting interior architecture in terms of these historical ideas techniques the kind of skills possessed by the people involved it could be very enriching. So, our next module is going to focus on traditional knowledge systems and the indigenous materials tools and techniques and here are the references.

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To the already created list I have added this very important Richard Sennett, The Craftsman, 2009 publication.

Thank you we will meet in the next module.