

## **Role of Craft & Technology in Interior-Architecture**

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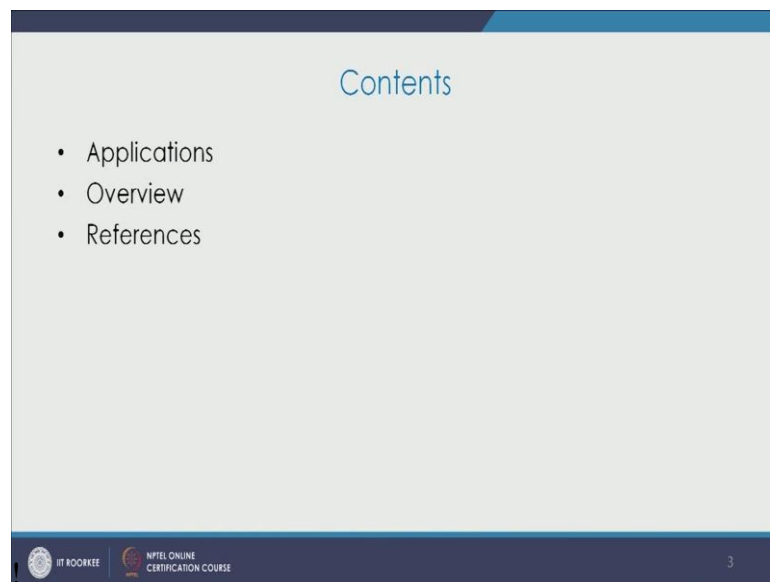
**Indian Institute of Technology, Roorkee**

### **Lecture – 04**

#### **Interior-Architecture and Craft & Technology: Exploring Applications**

Hello everyone, I hope you are enjoying my course on Role of Craft and Technology in Interior Architecture and you find it beneficial. So, today we will see module 4. Module 4 is about Interior Architecture and Craft and Technology Exploring Applications.

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Now, the overall contents of today's discussion, the Applications, Overview and the References that are going to be helpful for all of us.

Now, we have already discussed a few explorations and applications in the previous modules. We will go further ahead with some very interesting and creative ones. This is my favourite example.

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It is on the Wood Turning and Lacquer Craft of *Dholka*. *Dholka* is a place in Ahmedabad. Now, this is about a workshop that is that was organised by DICRC, CEPT university. It is one of my very favourite workshops I was a part of the organising committee and this is a perfect example which talks about role of craft and technology in interior architecture.

So, when we say wood turning craft, it means like this is would that turns there is a lathe machine on which the wood turns and then the section of wood is inserted between the pegs of the lathe machine and when we put chisel against the wood section, there are some proportions and some interesting sections that are carved out of it. So, if we see over here, this is the wood turning machine; these are the pegs and this is the section of wood which is inserted and the chisels are kept against the turning wood. As the wood revolves they are different kind of sections that are produced.

Now, there is a community over here in *Dholka* that practices this craft and after wood turning the application of Lacquer is also there which is usually done by women. Here, we see Anil ji; he is the principal craft person; the master craft person here. He is very innovative; very open minded and very contemporary. So, we did this workshop with Anil ji and we came up with very interesting aspirations. This was done by the craft persons as well as the students of CEPT university plus the staff of DICRC, where I was

also working. So, these craft persons and the community who is practicing this craft, they initially made very small sections you know; small toys, small wooden sections may be utensil some accessories.

But the challenge and the innovation that we adopted here was to go little ahead and to come up with some prototype which is very contemporary in exploration in expression; yet it had its roots in the traditional know how and the skills that the craft persons already possess. So, if I can show you the next slide here.

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So, this is the traditional prototype that this community has been making this is called *Ghodiya* It is a baby cradle. From here what we explored was something like this. So, this prototype is used as a partition screen in the centre; as we can see it is placed inside the centre and this itself is a visual directory, we can see all possible sections, different cross sections different lengths; what the lathe machine could accommodate and this kind of prototype could be assembled.

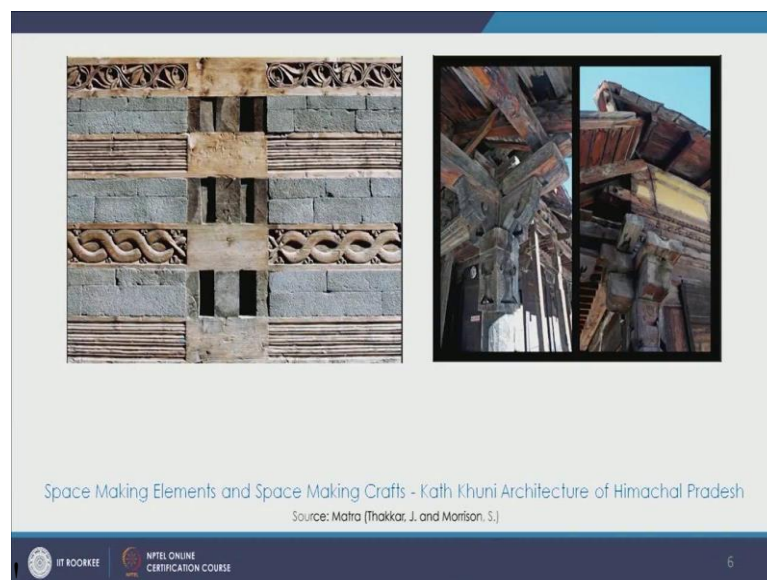
Keeping the base, this one same as an adaptation from the traditional baby cradle; so, it has lot of stability. There is interesting joinery the over here without much adhesive and we could explore sections from as small as 1 inches to like almost 7 feet. So, this was a

very interesting prototype plus it was also further explored what if we do not have enough timber; then, we do some explorations in bamboo using different joinery.

So, this was a very interesting exploration, where the craft and technology, the skill of the craft person, their knowledge of the material and know how that can be extended and incorporated within the built environment to create a furniture piece like here partition screen or it could be something related to the built form also.

So, there are several examples. Next, if we see another application we can talk about the *Kath Khuni* architecture of Himachal Pradesh. This reference has been taken from the book *Matra* which is authored by Mr. Jaya Thakkar.

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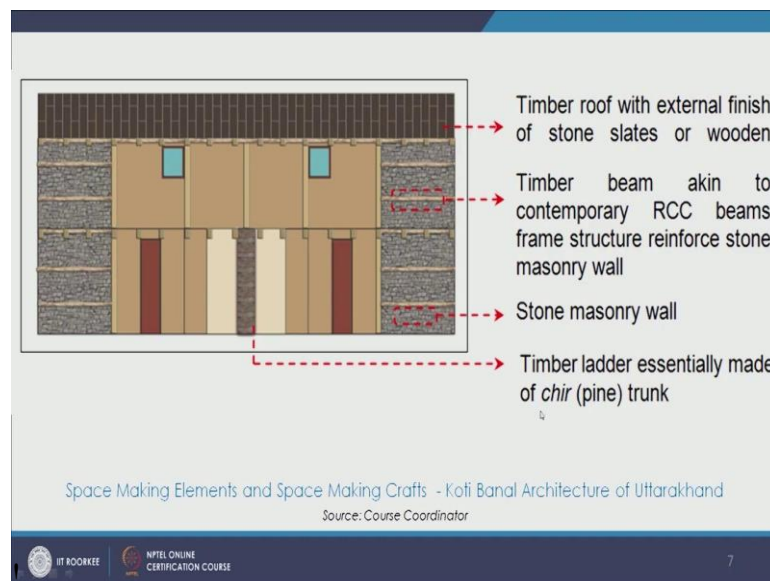


It is co-authored by him with another author Sky Morrison. So, we see this very interesting image over here; there are these alternative bands, stone and then there is timber. So, this was in response to the climate and the earthquakes that the region of Himachal Pradesh face and this kind of construction came from the traditional knowledge systems.

It is practiced by the indigenous communities and when there are lateral forces in case of earthquake. This kind of construction where we have the alternate bands, it prevents the entire building from shaking in falling apart.

So, this comes from natural resources the knowhow of the people; in the form of climate responsiveness in the region where these kind of structures are situated. So, these are very interesting examples which we can take from a traditional practices and we can incorporate even in contemporary times with necessary modifications that are required or that are resulting out of the changes and then needs that are changing with the time. Similar example is also found in Uttarakhand that is called *Koti Banal* Architecture.

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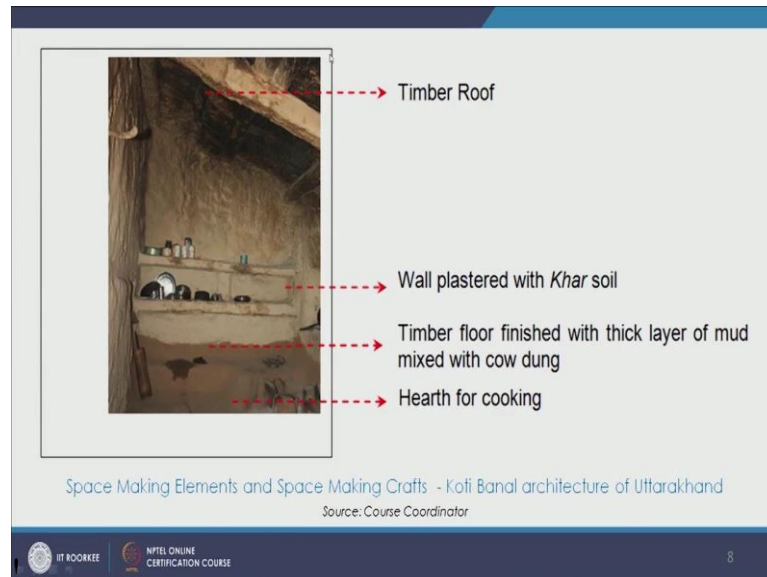


Now, this is one drawing it is an elevation; it is a house in a village called *Malhari* in the Chamoli district. Here also if we see, we see this constructions. So, there are alternate bands; there is stone masonry, then there is timber beam and this timber beam is very akin to the contemporary RCC beam frame structure which reinforces the stone masonry wall.

So, this is taken from indigenous communities and traditional know how and we still find these examples in Uttarakhand which have stood the test of times and there are houses which are 300 years old, 500 years old may be in some cases beyond that. Here we also see this ladder. So, this is a timber ladder, this is made from the pine trunk which is local parlance is *Chir* and this is sculpted by hands only like in a single log of wood, it is sculpted or scooped out of hands and this is used for navigating and negotiating between level.

So, this is another kind of example, where we see the traditional know how and the indigenous communities, the role of craft and technology in creating interior architecture. This is now one picture which shows the interiors of the same house.

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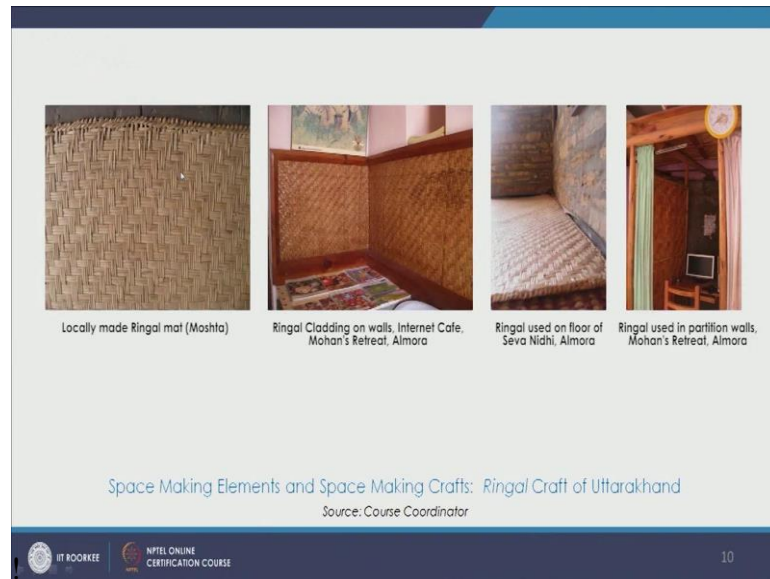


So, we see different space making elements; we see this timber roof, we see the wall which is plastered with the local soil which is called the Khar soil. It has excellent binding properties, then we have this floor which is finished with thick layer of mud which is mixed with cow dung and in local parlance this is called *Leepan*.

So, this also comes from indigenous communities and it has lot of scientific reasons. We have this cooking Hearth over here. So, this is the interior space which is again created with the role of craft and the indigenous skills and the traditional knowledge systems.

Some examples of timber furniture also we see in Uttarakhand. This is just one image. There is an extensive range may be in one of the coming modules, we will go through them. This is another very interesting example that I would like to focus on.

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This talks about the *Ringal* Craft of Uttarakhand. Now *Ringal* is a variety of bamboo. It is also called as Dwarf bamboo because it is smaller in size; the sections of bamboo are smaller in size comparatively and it has different names, it has different species. So, there is there *Dev Ringal* there is *Gold Ringal* and so on. So, this *Ringal* was earlier used to make mats and baskets just like we do with bamboo and this piece here, if you see this is called *Moshta*. So, this is again a sort of a mat which is placed on the floor and in the local parlance; it is called *Moshta*.

This has excellent damp proofing qualities and now if we see the applications here, this is one of the internet cafes in one of the resorts Mohan's Retreat which is there in Almora. So, we see the application here on the walls. Here, this is another building Uttarakhand Seva Nidhi; where it is used in the same way for flooring. Here, we see the partition screens in the same cafe where this is used over here.

So, we are seeing the different applications. The technique is same, the skills are same; but there are different explorations, there are different applications. Rather than being just use on the floor, it is also getting used at different places as different space making elements.

So, like I was saying that it has excellent damp proofing quality. So, we know that wherever there is lot of dampness *Ringal* can be used on the walls, on the flooring and so on. These are some another examples which are at the product level.

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So, here we see a very interesting lamp over here. We can make lot of lighting fixtures out of it and there is a different more and a very nice ambience which is created. Here we see the storage unit. So, there are draws this is also made out of *Ringal*.

So, the entire discussion is about how these craft skills can be explored further with the play of technology and we can integrate them, incorporate them into space making; we can create interior architecture out of it. Because essentially craft is all about materials and built forms in interior architecture also predominantly is about materials and the making. So, there is a very interesting relationship between the two.



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Now, this is a very nice picture over here that we see; it is a painting which is done by Dr. Mathpal and I have procured it from the collection of folk culture museum which is there in Bhimtal in Uttarakhand. So, this shows as the women of Uttarakhand who are making an *Aepan* painting.

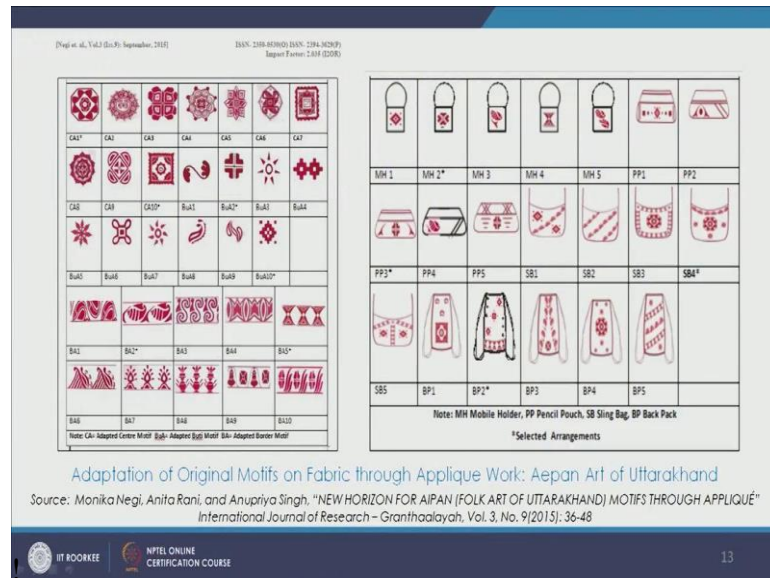
So, *Aepan* paintings are the ritualistic floor paintings and they have been done since a very long time in Uttarakhand and their done in different parts of India and we know them with different names. So, this is narrative of the ethos, the society, the belief systems, the cultural practices of the communities. But the interesting point is that how this art could be explored as a surface finish and other important adaptations in textile industry also.

So, the current paint industry specially the Asian paints, if we see the range of their products; there are lot of motives and surface finishes that they design. So, there are also explorations with *Aepan* artist where they try to incorporate interesting motives as surface finish.

But what we need to check over here is that we do not exactly contemporize it. We should just a try to keep the essence and we should try to keep the originality and that

way the marriage of technology and tradition, it can result in a better continuity where everybody has a role to play.

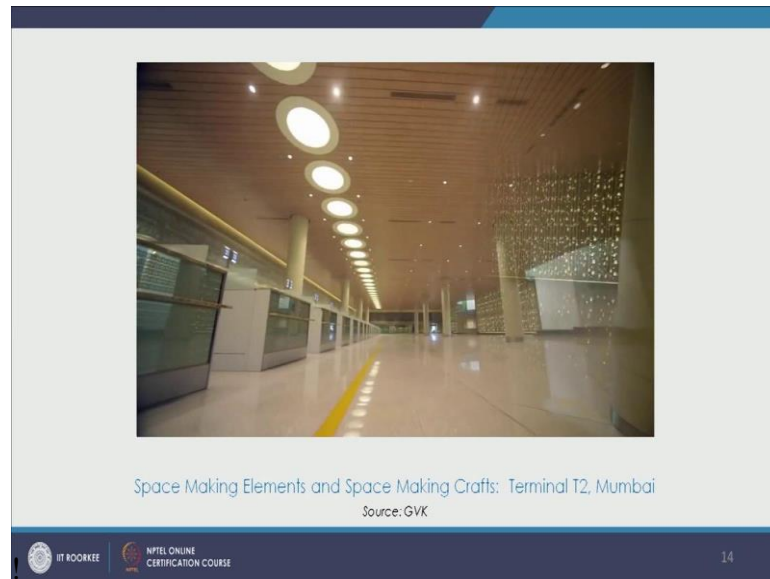
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So, if we see this particular example, this is where the original motives of *Aepan* they have been adapted and they are applied on fabrics through different techniques like Appliqué.

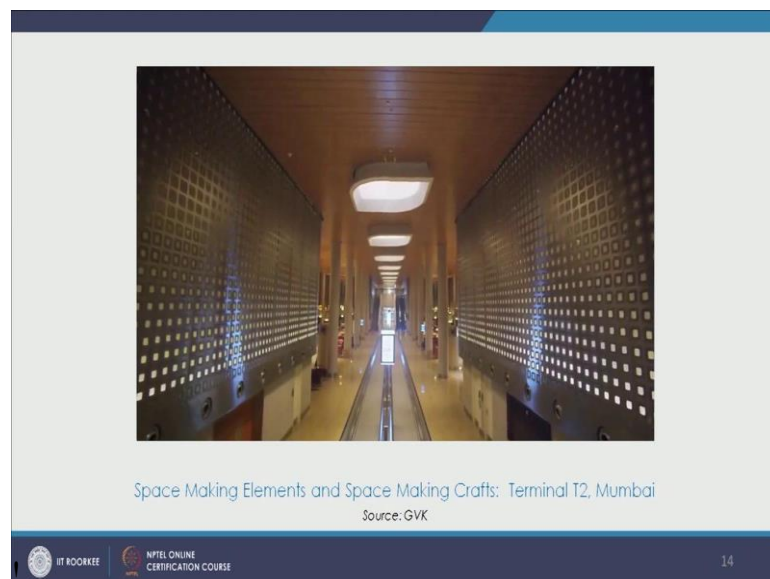
So, here we see certain motives that have been identified and then they are applied on these bags and apparels and there is this direct application through adaptation through different expressions that is another way of continuity and taking this craft to another domain.

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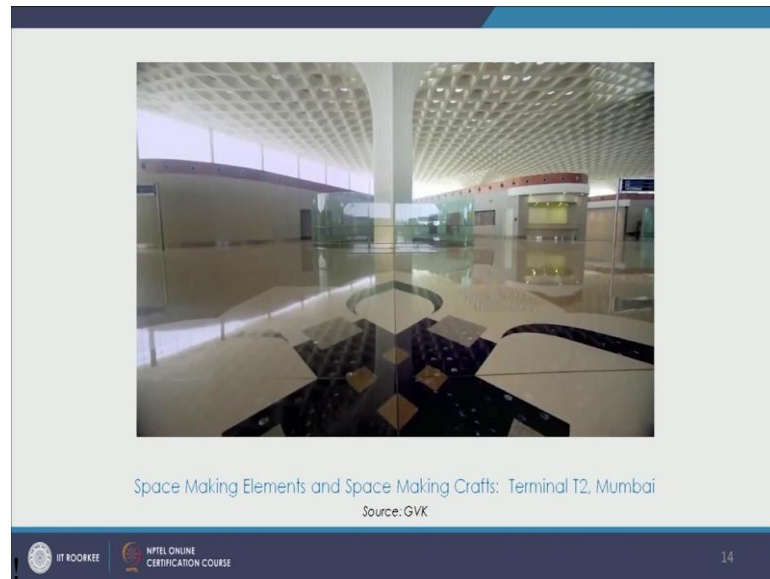


I would like to now play a small video.

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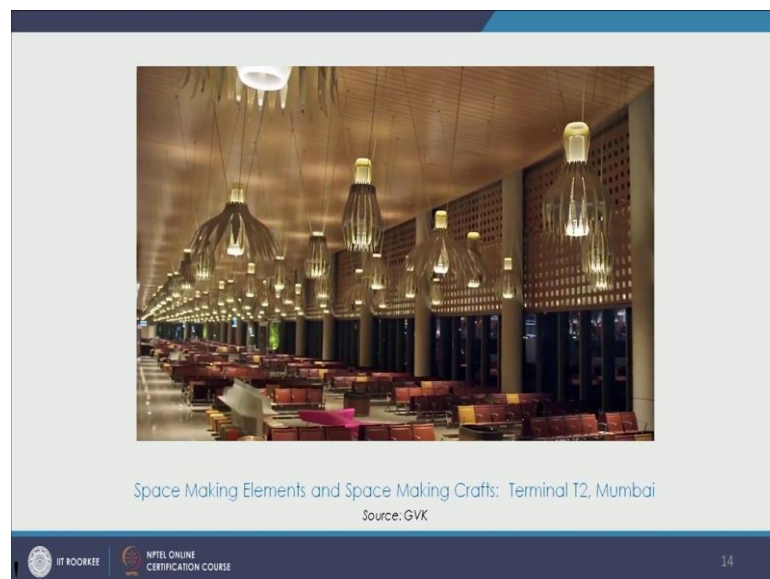


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And this video shows the terminal T2 Mumbai.

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We all know it is a very famous airport which has been awarded several times. The construction is done by GVK group. Now the concept you know before designing the airport was to create a mini India. Since, Mumbai is the financial capital, it is known for Bollywood and lot of travellers and tourist, they come to India for visiting Mumbai and

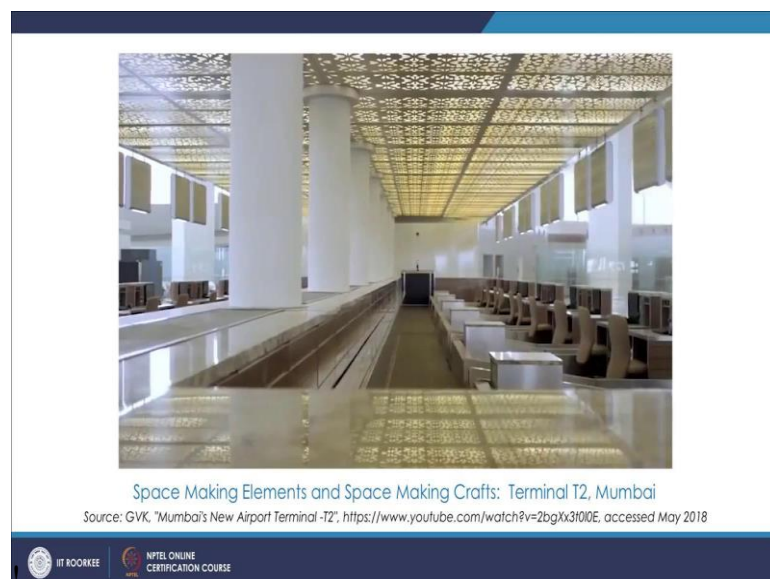
through Mumbai, they go to different places. So, the entire idea was that they get the glimpse of entire India at the airport itself.

So, different art and craft forms of India, the culture of India; some built forms interesting *Jali* patterns all of them have been tried to they have been recreated at the airport to give a glimpse of the mini India. So, that one just knows ok, this is the Mumbai; we enter Mumbai and we have this nice place airport where we get to see everything about India; no matter if we don't have time to visit all the places as a as a tourist. So that is very interesting and as the video runs please also notice the construction details in the materials. So, let us just see the small video for a while.

All men dream; but not equally; Those who dream by night in the recesses of their minds; wake in the day to find that it was just an illusion. But the dream is of the day are dangerous. For they act on their dreams with the open eyes and makes them possible. This is the story of a dream that became real.

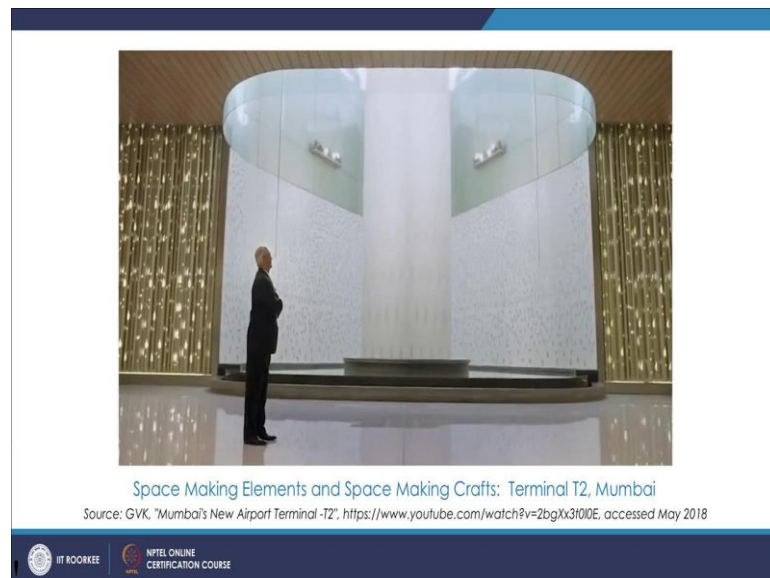
We at the GVK believe whatever we are building an infrastructure, we are building the nation; when got the competitive bidding, the Mumbai international airport. It was felt that this is the most difficult project to conceive. This terminal is the greatest example a Indian company can achieve its standards.

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And we can compare ourselves in any part of the world. All this iconic structures they are permanent forever for the people of Maharashtra and city of Mumbai.

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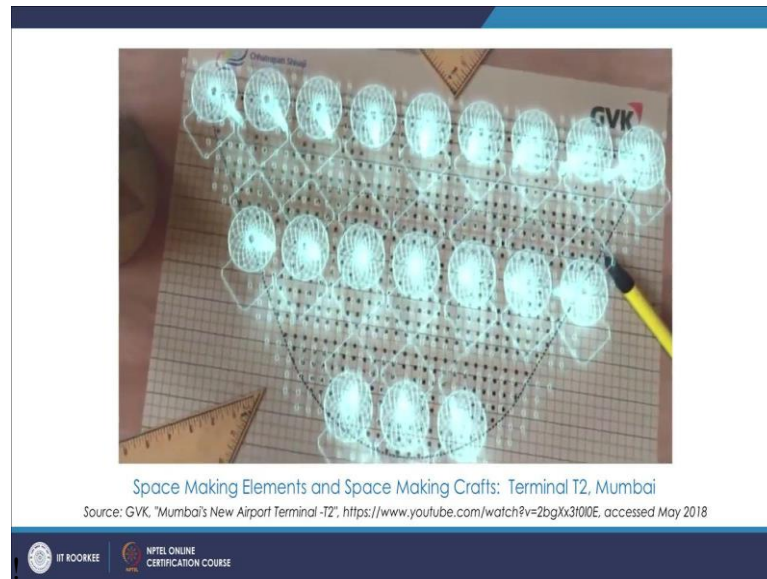
That is why I take the pride to say our dream is to build the nation.

It was the challenging dream indeed. Few realise that the Mumbai airport is one of the most constrained airports in the world, situated in the heart of a bustling metropolis. It is really lacks one key element of every major airport, land; our task was daunting.

We had to create a whole new mega structure; even as we rebuilt runways, and all this had to be accomplished ensuring minimal interference to passengers. Never before that a project of this complexity been attempted; The Mumbai airport; where, as the name of a legend Chhatrapati Shivaji. Well, it was an honour to take the legacy of the iconic leader forward. It was also great responsibility.

We will no longer seeking inspiration from global benchmarks. We were going to create our own. Experience said it present possible and reasons that it is reckless.

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Yet, we chose to dream. After all we were in Mumbai, the city of dreams. The city that is always placed on its highest pedestal; they will seek the impossible and so on. Our dream took shape.

It was ambitious and grand by any stretch of imagination; but it had to be. For it was a dream inspired by the spirit of India and India that stands at the crossroads of time; Travelling in the promise of the future and yet rooted in tradition.

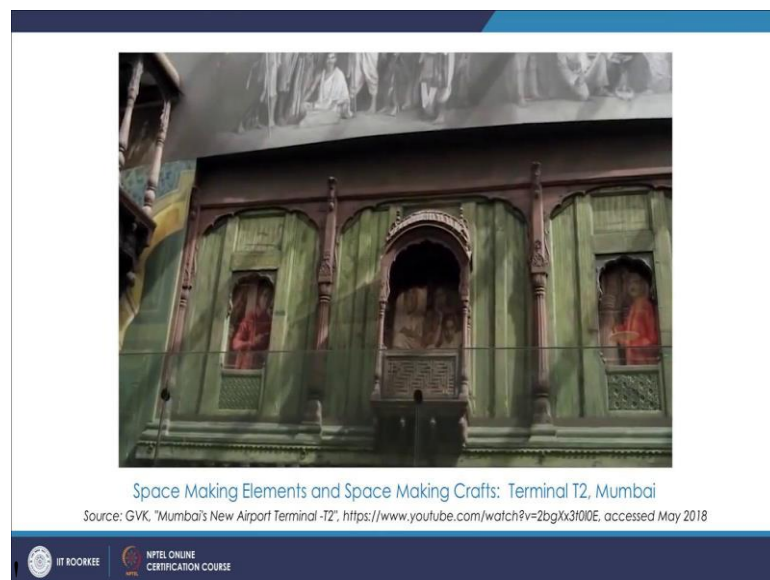
We imagined not just an airport; but an architectural feat that would give voice to the aspirations of a nation. The airport had to do more than just inspire or it had to make a quiet, but compelling statement.

I always had this burning desire to showcase to the world something which is very close to my heart. The beauty of Indian art and design with GVK on the Mumbai airport bid ahead the opportunity to realise this dream; however, it was quite a struggle because there was no benchmark to follow anywhere in the world. I started off with the idea of using the peacock feather as the T2 design inspiration, an art form across the length and breadth of the country as its jewellery.

Even though, Mumbai airport and huge constraints we reach for the stars with a vision to make Mumbai airport one of the best in the world which will make Mumbai proud. This was not just any other project for us, this was truly a labour of love.

It is an emotion that will be shared in experienced by every visitor to the new terminal. One of the emotion is articulated in many ways; none is as novel as *Jaya he*. The unique initiative that celebrates the diversity of Indian art; like our anthem *Jaya he* eulogises the reactions of India through art and culture; Showcasing treasures sourced from across the country; *Jaya he* is one of the world's largest art programs in the public realm.

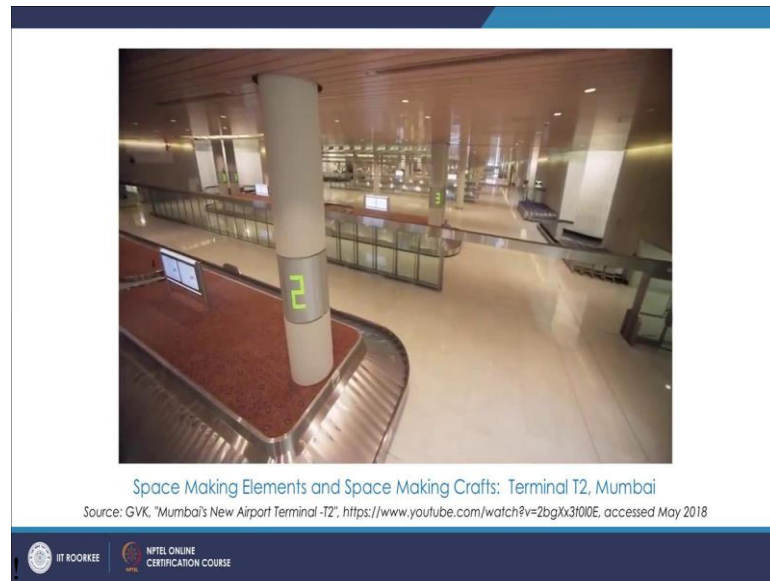
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In the timeless art of India, the modern design of the new integrated terminal T2, finds its soul. T2 at Chhatrapati Shivaji International airport heralds a new era from Mumbai as a catalyst of change, it will inspire other developments and allow us all to believe that in our greatest challenge, we find our greatest opportunity.



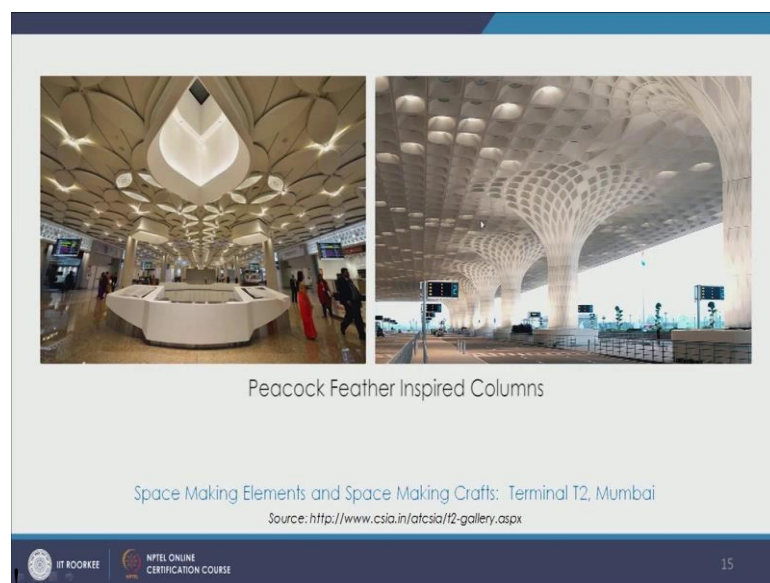
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But the great humility in pride; GVK presents its dream to the city of dreams. I hope you enjoy the video, like the video mentioned that this terminal showcases the timeless Indian art and design and we see lot of duty involved in it. So, as an interior architect as an as a designer, I take immense pride and I really like this building.

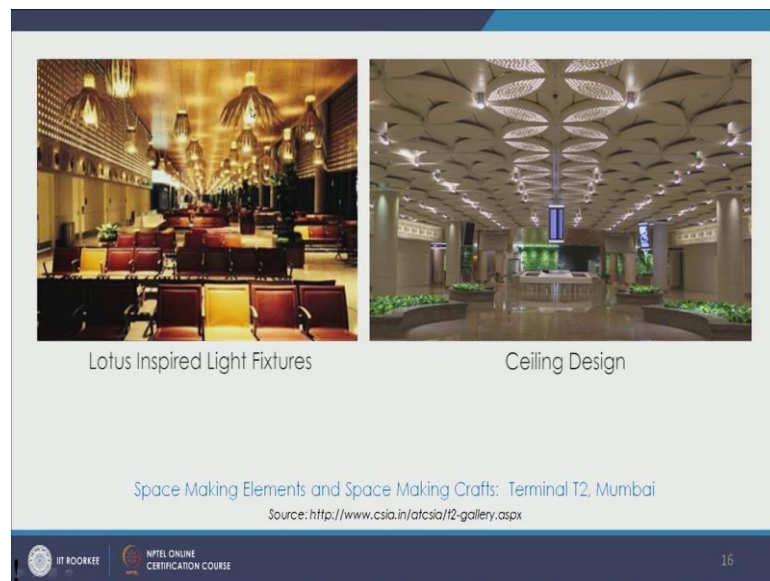
So, therefore, I put it here and also showed you this video which will give lot of idea about the different materials used; what is the concept, different art forms incorporated.

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There some images also. Here, so this is the inspiration from the Peacock Feather that was being mentioned in the video and how it has been utilised as structural part. So, we see the column and superstructure and it is not just a surface, but from nature and inspiration has been taken and we have integrated it within the structure and we have created a bill form out of it.

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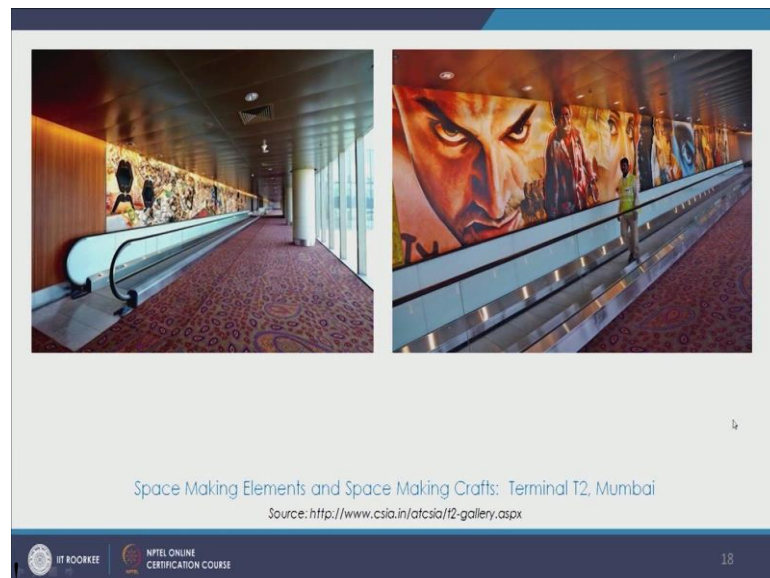
Here, we see these lightings these are inspired from the lotus and there is a certain adaptation and modification; they have a very contemporary expression, but still it talks about Indian roots and motives and value systems.

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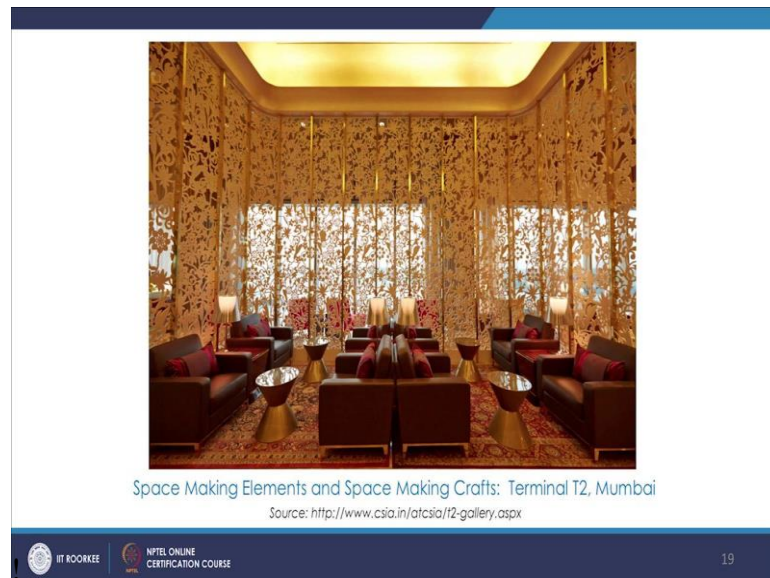
Here, we saw this in the video also this is the compilation of different *Jalis* from India and it talks about the crafts and skills and it represents India in a nutshell. This is an example of *GOND* art which is very popular art form in India and it is very expressive form and it is painstakingly done by the artisans in the craft persons; that is also reflected in the terminal T2.

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Now, since I was mentioning that Mumbai is about Bollywood, Bollywood lot of people know about it even outside India, they enjoy it. So, we see this panels, we see mister Bachchan over here and all the legends which are there along the escalators and the walking tracks.

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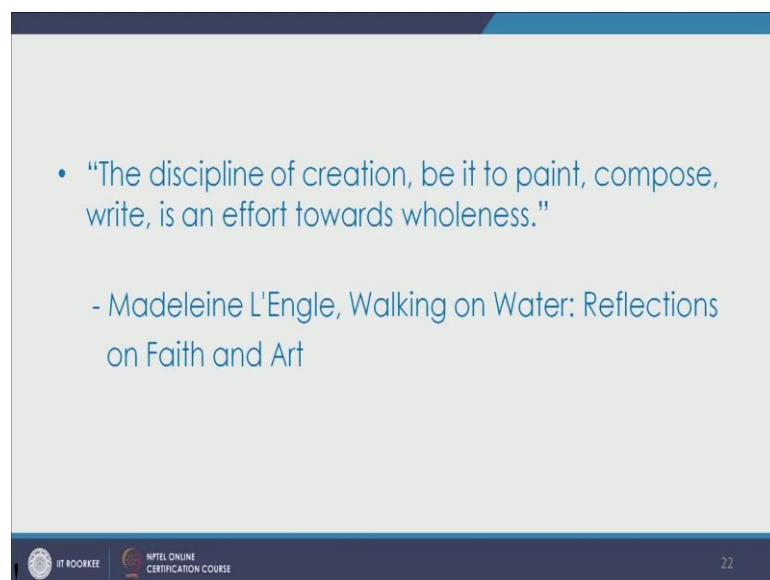
So, that is also in art piece here. This is a very interesting lounge area which has this adaptation from *Jali*; it has very interesting motives and detailing very aesthetic and pleasing twice. So, this is again role of craft and technology in how we are creating the interior architecture. So, after seeing all these creative interesting applications and examples, we will just see the overview of what all we went through today.

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So, we saw certain applications of craft and technology and interior architecture and we saw those applications at 3 levels. We saw it in built form where we touched upon the structure as well as the surface. We saw the applications in furniture making and then we also saw certain products; like always I would like to end with this enlightening quote.

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“The discipline of creation, be it to paint, compose, write, is an effort towards wholeness.” Now, next module we will discuss the summary and we will have a

discourse on what all we discuss so far and before signing off let us just have a look at the references that I have prepared for all of us.

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Thank you.