B. ARCHITECTURE
THEORY OF ARCHITECTURE – I (AR6102)
PRINCIPLES OF ARCHITECTURE – MOVEMENT
Lecture - 9

Introduction of Movement, Approach & Entrance in Architecture:

Introduction - The aspect of movement in architecture. Movement is one of the most important aspects that influence the architecture experience. All the other aspects like form, light, colour, etc. get a dynamic meaning when perceived in a movement. Beauty of architecture cannot be simply perceived like how a sculpture is perceived at a distance; rather it involves a movement around and within it which adds another layer of beauty and complexity to the art. We have many examples to depict the same in this discussion - in this chapter we will discuss the following principles involved in movement else called as the circulation in a building. The aspects are - approach, entrance, configuration of path, path-space relationship and form of the circulation space.

First we will begin with the first aspect - Approach. How can a building or a space be approached, is a very interesting aspect and there are many interesting ways of looking at it. Architecture is experiential. Prior to actually passing into the interior of the building. We approach it along a path. This aspect of approach is the first phase of an architectural experience. This aspect can be manipulated to synchronize with the movement inside the building or it may be purposefully contrasted to create a desired experience. We have so many examples of architecture from both the history and also the modern architecture, where the aspect of approach has been utilized in a variety of ways.

There are certain categories of approach, which can be differentiated into the following three categories - Frontal, Oblique and Spiral.

What is a Frontal approach? The Frontal approach leads one directly to the entrance of the building, along a straight, axial path. In this case the visual goal is very clear, there is no confusion with regard to the destination.

Oblique - an oblique approach leads to the entrance of a building at an angle that is not perpendicular straight path. This approach enhances the effect of perspective and three dimensional form of a building. The path can be redirected one more times to delay and prolong the sequence of approach. That's what these pictures depict. When you approach the building, you can pause and turn again so that the movement will be interesting before we approach the desired destination.

The approach can be spiral also, which leads through a part around the building in a spiral way. The path prolongs the experience and emphasizes on the three dimensionality of the building. Now, we will see actually building examples depicting these three methods of approach. The building in this example has a straight front approach to the wonder. You have many other examples in India, in this case, this is one strong example. Most of the religious architecture in India have a straight a straight axial path leading from the central structure which will be a straight frontal approach. From the past we have the temples of Egypt, in this case the Temple of Amon-Ra. You have straight frontal approach from the entrance to the main space of the deity.

We will see a few more examples for Oblique approach. The glass house designed by the architect Philip Johnson is a simple cube. The three dimensional of the cube can only be perceived by the Oblique approach pathway which is not straight and perpendicular to the building. In this case of Ronchamp chapel by the Corbusier, here also we have an approach that is not straight and simple. We have an admitting path that leads straight towards the chapel. Not all the historical buildings will have a straight frontal approach. We have certain cases in the European Cathedrals where the cathedral will be located in the heart of the city where you don't have a chance of a long straight approach where the approach will be oblique or spiral which in a way is more interesting. Here you see certain plans of the Cathedrals in the heart of the city of various cities in Europe. This is how you approach the very famous Florence Cathedral in Italy where you don't have a path leading towards the centre elevation of the building, rather it shows

only the side view of the building. The actual view of the building comes to you as a surprise like this.

What is called as a path, the approach to the building can be more interesting like what you see in this example of Santorini at Greece. The traditional palladian villas have one of the best examples of straight frontal approach towards architecture. We have a few more examples here of the frontal approach. The Bahai temple in Delhi. The Milona association in Ahmadabad where you have a straight front approach to a ramp leading to the main space. We will see in detail about the aspect called entrance. In the history of architecture and in the history of ruins, this element called the entrance to architecture has been explored quite a lot. There are many interesting outcomes. We will certain aspects about entrances. How an entrance can be defined? What are the various categories of entrances? What are the various ways of opening an entrance and a wall? Entering a building or a room within a building involves the act of penetrating a virtual vertical plane, that distinguishes one space from another. Entrance means entering from one zone to another zone, from outside to inside, from one space to another space, that's what is meant here. How to define the entrance. The act of entering can be signified in the most subtle ways than puncturing a hole in a wall. It may be passage through an implied plan established by two pillars or an overhead beam. Even change in a level can establish a threshold and mark an act of entering.

Here is an example of an entrance in Venice. The entrance signifies the transition from the waters to the land, from the sea to the platform. Entrance may be grouped formally into three categories; flush, projected and recessed. A flush entrance maintains the continuity of the surface of a wall. A projected entrance forms a transitional space, accentuates the function and provides a shelter. A recessed entrance, also provides shelter and receives a portion of the exterior space inside the building.

We will see later, certain examples of all these three categories of what a shape and entrance can be. In a normal situation, an entrance is accommodated by an opening in the plane of a wall; the form of the opening can range from a simple hole in the wall to an elaborate, articulated gateway. It can be a simple split in the wall or a decorated archway like this. Have you seen the significant location of an entrance? In terms of location,

an entrance can be centered within the frontal plane of a building or be off-centered. The location of an entrance determine the configuration of the path and the pattern of activities within the space. We will see certain examples of entrances to architectural spaces and buildings.

Most of the cathedrals in Europe have a very elaborate decorative entrance way like this. This is an example of an entrance, not a projected form but a scooped up form from the central mosque other example of an entrance by subtracting mass from the main building, the British Council Library in Delhi by Charles Korea another example of an entrance that has a subtractive form. What shape can an entrance be? It can be a simple split like what you see in this John F. Kennedy Memorial again a simple split but in a large scale like what is called as pylons in architecture. A split in the wall is the main entrance that leads to the temple.

Configuration of Path & Path-Space relationship & Form of the Circular Space:

Now we will see the aspect, what is called as configuration of the path. Configuration of the path means the pattern and the form of the path. In what way paths can be arranged, that is what we are going to discuss in this session. The nature of the configuration of a path both influences and is influenced by the organizational pattern of the spaces it links. The intersection of paths is a crucial point of pause. The character and hierarchy of the paths is determined by the continuity, the scale and the other aspects. The picture here depicts the network of paths, where the paths have joined but each and every path is of different widths. This difference in the width will give a different character to the path whether it is a private path or a public path. When paths join they create a bigger space that act as a gathering pausing space. A simple path can lead to every activity and movement inside the building or in the scale of the city.

We will see varieties of configuration of path. First the linear path, if we have a series of spaces to be connected by a path, the linear path is the basic primary organizing element. It can have variations by being curvilinear or segmented or by branching out to other paths and by being a looped path. Straight path, you have a curvilinear path, here it is shown as a path that

radiates from one point, path that is looped, branching out, all under the category of what is called as a linear path.

Paths can be radial and spiral as well. Radial configuration has linear paths extending from or terminating at a central, common point like what is shown here. A spiral configuration is a single continuous path that originates from a central point, revolves around it and becomes increasingly distant from it like what is shown here.

A path can be in the form of grid also or network. A grid configuration consists of two sets of parallel paths that intersect at regular intervals and create square or rectangular field of spaces. It doesn't always have to be perpendicular, it can be a triangle as well. A network configuration consists of paths that connect established points in space. It may be composite in nature employing some of the other preceding paths of path. A naturally evolved path in cities and villages will be like this in a network which is a combination of a previous path. We will see certain examples of path that we discussed theoretically before.

A sinuous undulating curvilinear path outside the building, a spiral path from the lower level to the higher level - Sanchi Stupa. Most of the traditional buildings you will have a straight path leading towards the centre and after entering the campus, you will have a spiral movement around it. Here we have a case of Jaisalmer fort where we have paths of different scales and varieties which will help us understand the significance of the configuration of path. Here you have paths of various widths. The paths in the image here, are very narrow when compared to the ones elsewhere. They have a significance. The narrow paths are private/residential streets while the broader paths are public paths. These streets meet and a bigger space is formed and act as a pausing point i. e Plaza where the King meets the public. Based on the form of the path, the activity gets influenced as well. This is a picture of the same street, the residential narrow path and here's the picture of the plaza where all the paths and streets meet.

We will see the aspect of Path-space relationship. A path basically connects many spaces, how it connects the spaces and how does it pass through the spaces? We can add certain varieties of categories to this. First, a path can pass by the space without getting into the spaces. It can be separate by

itself to which various spaces are attached. In this case, the integrity of each space is maintained which means that it is not disturbed. The configuration of path is actually flexible. It can be straight, it can be spiral as seen before, without affecting the actual buildings or spaces it connects with. A path can pass through the spaces or through the buildings like what is shown here. Both are interdependent. In cutting through a space, the path creates a pattern of rest and movement within it. The path affects the movement inside the space. The path can simply start from one point and terminate at another also, like what is shown here.

We will see certain examples of all those categories. Example of a simple path terminating at an end, a path which connects many spaces on either side. Most of the institutional buildings have many spaces that will be connected by a long corridor. In this case, this is the Indian Institute of Management by Louis Kahn. The path is very interesting with the alternative light and dark areas, connecting all the spaces.

The path can pass through many spaces without being a corridor. Most of the Indian temples have a series of spaces like what is called as the mandapas, the main shikara and pass through all these spaces unlike a corridor. Another example from the contemporary world, the Jawar Kahla Kendra in Jaipur, where you have parts passing through different parts of the building.

Finally, we will see about the aspect of form of the circulation space. There is a circulation space and it is called the path, it has a form. It has a form, a lot of aspects to be discussed. The form of a circulation space varies according to how its boundaries are defined. How the form relates to the space it links, how its qualities of scale, proportion, light and view are articulated. It handles changes in level with stairs and ramps.

We will see certain pictorial examples of how paths can be formed, different ways of defining the paths or the circulation space. A circulation space can be totally enclosed - forming a public or private corridor that relates to the spaces it links through entrances. Open on one side - forming a gallery that provides visual and spatial continuity with the space it links. It connects to the exterior, can be open on one side, forming a gallery that provides visual and spatial continuity with the space it links. It can be open on both sides -

forming a colonnaded passageway that becomes a physical extension of the space it passes through. It can have a more open feeling in contrast to the rest that have a more enclosed feeling.

The width and the height of the circulation space should be proportionate with the type and amount of movement it must handle. A distinction in scale should be established between a public promenade, a more private hall and a service corridor. Based upon the activity, how many people are going to be there, a form of the pathway, a circulation space has to be decided. Here it is a more private moment, the scale has to be very small. At the end here, it is a more public activity, it has to be more wider and larger in scale. A narrow, enclosed path naturally encourages forward motion. To accommodate more traffic as well as to create spaces for pausing, resting or viewing, sections of a path can be widened like what is shown here, instead of being a simple straight path. The moment you have a wide path, you can create an interesting activity, a pause here.

The path that connects the residential houses that are simple, narrow in the residential scale which also connects to the exterior which is not totally enclosed. A path that is a grander scale of large height, a public scale which is not a private path, connects to the exterior on either side which is not totally enclosed. We have many examples of interesting paths all over the world. In this case the colonnades where you have covered pathway, opening one side to the shops and commercial activities and opening to the other side of the road. A path can be migrated in a very interesting manner by manipulating the light, the width and height of it. This is an example from IIM Bangalore by architect B.B. Doshi.

We will look at the example of St.Peter's square. Various aspects of path and circulation has been discussed and can be best exemplified with this example of St.Peter's Square in Rome. The main building in this square is the cathedral by Michelangelo but the more interesting part in the building is the square in the front. This is the architecture just created for the moment, this is the gathering space, what you see around here is the collonade for the movement towards the cathedral. Here mainly, you have a simple frontal approach but you have more to it. Public can walk straight from the square to the cathedral or they can take a shade pathway through this colonnade. This colonnade falls under the category of an enclosure which is not totally

enclosed but has columns on either side. This colonnade connects to the public space on either side. The scale of the pathway here on either side is of a very grand scale making a monumentality of the Cathedral. This example is a total contrast of what you are going to see next. In this case you don't have a plaza as such. You have a series of concentric pathways. There is a frontal approach until one point. After which, it is all concentric pathways. In the previous example, you don't actually have an entrance gateway. In this, you have many entrance gateways and all the coordinates. The scale of the pathway in comparison to the previous example, it's all of a narrow and short scale. Here you have another example of how an approach or entrance to a building can be very interesting. What you see in the centre is an element of entrance to the Louvre Museum in Paris. You enter the building not through a major monumental course but you go inside to the basement in the central plaza through this glass pyramid and you go through various parts in the museum. This is designed by architect I.M. Pei. This design won the competition award just for how manipulate the approach or manipulate the building.