

B. ARCHITECTURE
THEORY OF ARCHITECTURE – I (AR6102)
ELEMENTS OF ARCHITECTURE – DOOR, WINDOW
& STAIRS
Lecture - 6

Elements of Architecture for Door:

A 'door' in architecture is an opening in a vertical plane that acts as an access way. Here we will discuss some significant aspects of the 'door'. A door opening in a wall plane can be called in different names according to its size, proportion and context. A door maybe called as an archway also based upon its location. A door, an archway on all its varieties can solve any of the purposes in the following ways. They can act as a circulation element. They can act as an image maker. A decorative element, a space modifying tool and as a communicative surface. Door archways and other varieties are the main circulation elements through which a person walks through in an architecture or a building. They also have a strong image making capability. They can solve the purpose of decoration and articulation in architecture also. They are the main space making elements as powerful as walls and columns. A door in a wall based upon its size and proportion can create a space or can dilute an already existing space. Also, can be a very effective communicative tool. We can see all this in detail one by one with architectural examples. A door is a main access to any space that is created. A space that is made as a form will have to have a door for an entrance. The scale and proportion of which changes according to the building typology. The dwarf though that we saw in the previous slide, is for residential tribal house. This is a grand magnificent door for a temple complex. In fact this is a separate typology of doorway building called gopurams which is just for the purpose of depicting the magnificence of the activity. We have similar examples of doorways and Egyptian architecture also, which are also in a similar pyramidal form. Here the door acts as a slit opening in a continuous vertical plane. This is what is called as pylons in Egyptian temples which is the Egyptian archway or the doorway. Also, we can see the doorway, the

archway acting as a communication tool through the depictions engraved on the wall's surface.

In contrary to the previous examples, we have another example of religious architecture. From this community called Thoda in Nilgiris. Where you have a very small door opening to the temple. According to the culture, a door may change its significance and importance. Most of the examples of Islamic architecture around the world has a major architecture typology of a doorway building to signify a mass complex or a palace complex like what you see here. The actual main doorway or entrance way is very small but the entire big magnificent structure is to exaggerate the small opening to give a grand entry. This we can say is an evolved form of a doorway which is actually the main circulation element. A doorway doesn't have to be an opening in a building mass or doesn't have to be an opening in a plane vertical element. It can be a simple composition element of linear elements like columns or beams. In this Sanchi Stupa, what you see as a doorway is a Torana with pillars and beams. Not only for architectural buildings can we have doorways to signify the entrance but the transition to a space's interiors. Even for a community space on urban level, an entrance to a space can be defined through an archway or a doorway. What we see here is a themed Darwaza which signifies the entrance to the main central core of the city of Ahmedabad. Not only on an urban scale but even on a city scale or a town planning scale, a doorway and an archway can signify an entrance. In this case, an archway signifies the entrance to the entire city. A door doesn't only signify the entrance to a particular space. In this picture we see here, a doorway can be a symbolic communicative element, an entranceway to a gothic cathedral. The surface of the doorways are completely carved with sculptures and depict biblical stories that have sculptures of apostles, act as a communicative element to support the religious activity, Christianity there. Another example of a door as an artistic communicative expressive element. In this case as an example of doorway designed by Architect Le Corbusier in the capital complex, the Assembly building in Chandigarh. The plain doorway was treated with decorative artwork in contrast to the plain surface around.

Door in some cases is not a simple decorative element like what you see here. It has certain meanings hidden within it. A residential colony, this by the decoration of a door or any other architectural element, a person can

express his status of life or his artistic expression like what you see here, the Havelis of Rajasthan. Even the Havelis in other parts of India, like Gujarat have a very decorative doorway or entrance way which in a way signifies the social status of the person living in the space.

Elements of Architecture for Window:

Now, we will see the aspects and characteristics of the architectural element called the 'window'. The window is an opening in a vertical plane, similar to a door. Only difference is you can't use a window as pathway for movement. It has multiple functions, in this discussion we will look into all the aspects of window. A window in a building is synonymous to the eye in the human face. Helps a person connect with the external environment outside. In the same way, how an eye can be an expressive element on the human face, in the same way, the window can be expressive element in architecture also.

A window or an opening in general may act as a - lighting tool, ventilation tool, viewing tool, an image maker, a decorative element and a space modifying tool. Based on its size, proportion and function. A window may be called different names. What is called as window - a big wall opening, a ventilator. All under the categories of an opening in a vertical plane but all have different functions to perform. Primarily, a window's opening bring light to the space inside without which the space will be very dark. Window is the main element that brings light into the architectural space inside. If we close the door for security, without windows a space will be without ventilation. As we discussed previously, window is the main viewing tool that connects the interior space with the exterior space in the building.

Window is a main image making tool. We can see many examples further about how window can act likewise. Window as we have known is the main decorative element in any architecture. It is the space modifying tool also. Like how a door can modify a space or dilute an already existing space. A window can also perform the same.

Here, we can see a picture of an architecture from desert area where the window is very inconspicuous and very insignificant. This is for a reason because in desert architecture, you cannot have a window that is very big. It will make the space inside very bright and climatically uncomfortable.

Window is primarily a functional element, after which it can become an architectural aesthetic element. Here again we have another example of window in desert architecture, in this case, a palace architecture in Rajasthan, what is called as Hawal Mahal, Jaipur. Here you can see windows but you can't see a large opening as a window. What you have here actually is what is called as Jaali or a slitted opening. A wall surface with small slits of openings so as to bring a filtered cool air inside which will block the hot air and will also give a controlled lighting quality inside, instead of a very bright space. Also it has a cultural reason. This jaali window will allow people inside to watch people walking outside without allowing them to see the people inside. Windows have a strong functional reason before any aesthetic reasons in architecture.

Here you have an example of contemporary architecture, a view showing roof and also the enclosing wall of a museum designed by architect Peter Zumthor. Where you can see no single big window but small slit openings of what you called as Jaali which brings a beautiful decorative light inside, a controlled cooled light inside, in a way comparable with the previous example. Window in its various sizes, proportions and locations, act as a main articulation element of a building mass. In this example of Kanchanjunga apartments by architect Charles Correa in Bombay. You can see the building mass which is a primary extruded cube, it would have been very boring with its non decorative surface if it weren't for the windows.

Another example by the same architect, the British Council Library in Delhi where you have openings. The openings here along with the main opening doorway here, act as a main decorative elevation massing of this building. Window doesn't perform the simple act of bringing light inside the building, it can have a more symbolic or more meaningful act also, like what you see in this example of a small chapel designed by architect Tadao Ando, where you have a window in the form of a cross, bringing a beautiful, mystique light inside, which is very relevant to the religious activity happening inside.

Another example of a chapel, where you have a mystique decorative lighting inside with varieties of proportions of window openings. This building is Ronchamp Chapel designed by architect Le Corbusier in France. With these two examples you can see how a window makes an interior space very beautiful, the quality of light it brings inside. This is how the same building,

the Ronchamp chapel looks from outside with windows forming a composition, creating a wall outside. It forms a dual purpose here. Decorating the exterior surface and also bringing in beautiful light. We have another example of window performing many functions in a building. Here you have a building wall with small openings which act as light bringing elements, which act as temperature controlling elements and also decorative elements. This is a building designed by architect Herzog and de Meuron, where the size of these openings can be controlled through mechanical means, the sizes of which can be reduced or increased to the preferred qualities of lighting and temperature inside. We have an example of window from history, in this case, the king's college chapel in England, the gothic Cathedral. Without this window, the space inside will be dark. The window is the main element that brings in a flood of light during the day time and it also has a decorative meaning and a symbolic communicative meaning with stained glass window depicting the biblical stories. Another example of how a window can act as a decorative tool. In this case, it is a jaali of the Siddi Syed Mosque in Ahmadabad where you can see a beautiful organic pattern of the tree carved in the window opening.

Elements of Architecture for Stair:

We will see in detail about the characteristic of a stair as an architectural space making element. A stair in architecture is a plane that acts as a circulation element between various levels. Here we will discuss some significant aspects of the 'stairs'.

A stair or a ramp may act as any of the following - it can act as a circulation element, a movement guide, an image maker, a decorative element or a seating tool. A stair or a ramp, all of them are varieties of the same kind. Ramp is a continuous plane, a stair is a plane but in a staggered form. Here you have an example from India, what is called as Mill Owner's Association building in Ahmadabad. A building designed by architect Le Corbusier where stairs instead of being a hidden element inside the building, acts as a main entrance massing element along with the ramp which gives a significance to the building form.

Here we have another example of a stair as a main element in architecture. The Adalaj stepwell in Gujarat. A stair can also be a very simple decorative

element like a jewel. Like what you see in this house, what is called as Inges house, designed by the very contemporary architect Dominic Dube in auroville. In the history of architecture, a stair has a lot of significance, sacred spaces and religious spaces can be given importance by the act of climbing up which is done with the help of architectural element, stairs. Here you see a major entrance - the Buland Darwaza, the main entrance to Fatehpur Sikri. The entrance archway is not kept on the floor directly but on a stairway platform which gives a sense of magnificent entrance. You have many more similar examples in the history of Indian architecture. What you see here is the sun temple in Konark. Again the main temple is not kept directly on the floor, rather it is accessed by a very steep grand stairway. Another very good example of manipulation of varieties of stairs, in this case it is the sun temple in Modhera, in Gujarat where the main temple complex has a water body in the front which is accessed by a stairway. Not by a single variety of stairs but many varieties of staircases. The inspiration of stair form from the previous example was brought down to many contemporary examples like in this case. A similar manipulation of stairways is used at Jawahar Kala Kendra as a decorative element. This is the main courtyard of the building designed by architect Charles Correa. Stairs which is not a simple movement circulation element can act as a seating element also. Based upon the form and organisation of a staircase, it can create an activity like a gathering and discussion. We have many more examples of varieties of staircases in its form in India. In this case, what you are seeing is an example from Jantar Mantar, Rajasthan.