Impact of Entrances in Building

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Abstract

The research will begin with the content and strategy of study the impact of entrance in buildings. Shelter being one of the primary needs of man, it is not surprising that first place looked in where caves. As mankind progressed, so did his life style pattern evolve? When man started his forms, it was the entrances on which much emphasis was laid, form the ‘colonnaded porched entrances of the Romans’ to the ‘massive arched ones of the Mughal’. Entrance gone through a lot of changes due to the changing requirements in today’s context.

Changes in entrances according to need

Entrances is the means to enter the safe guard, space enclosed 3-dimensionally hence preventing from exterior space enemies space, animals and from tragedies of climate and personal privacy. The scale and the treatment of the entrance can itself are useful only to provide a visual clue to the nature of space being entered.

Keywords: Impact, Entrance Design, Security, History, Architecture, Design, Gate, Form.

1. Introduction:

The entrance is the space along which the one approaches the building prior to actually entering it that serves as the introduction entering and preconditions our mind to the nature of activities within the building. In fact, as Greene say “One of the main ceremonial acts associated with architecture is that of entering a building and it is enhanced by the elements around it”. Thus one comes to realize that entrance to a building is just as important as spaces within them. The transactional space between a building and external spaces in as entrance. Whenever we approach to an external space Ex- Garden, site of campus etc. Or any open space and to enclosed space like building, clusters, entrance was and remarkable impact on visitor. It is the path leading to different component of site. Proportion and scale of entrance also reflects the strength of people which space in covered. [1]

1.1. Definition:

Entering a building a room with in a building or a defined field of exterior spaces involves the act of
penetrating a vertical plane that distinguishes one space from another. In the normal words where a wall is used to define and enclose a space, an entrance is formed by creating a picture in the plane of the wall. The openings can vary a simple hole to articulated one. “Figure 1”

![Figure 1](image1)

Figure 1

The entrance to a build form is different form a gateway to a complex while the gateway is like a frame away from the built mass; the entrance to the built mass is void on the wall surface. Thus the entrance forms an important part of elevation facade of the building. “Figure 2”

![Figure 2](image2)

Figure 2

1.2. Significance & effect in spaces:-

The use efficiency of a space to a great extent depends on the position of the door. Pattern of movement within a room is directly related to the location of the door. When a single door placed in middle it breaks the room into two. “Figure 3” On the other hand a door located in corner reduced circulation area and leaves more space for other activities. “Figure 4”

![Figure 3](image3)

Figure 3

![Figure 4](image4)

Figure 4

![Figure 5](image5)

Figure 5

However, in large rooms, which are long and wide locating them in centre help to form roughly square spaces which are large enough to be useful for two distinct function. “Figure 5” By placing the doors more or less along the same side, so as to leave the rest of the room undisturbed by the movement. (figure.6)In a large room, the doors can be in middle, so to create formality and induce a feeling of grandeur. “Figure 7”
In space with many doors variation in size of doors can be tracked from public to private space. Door marks a threshold for further ease, it is important to consider door as a space of transition. Extended planes of roofs, walls or floors combined with elements like seats and steps will help to accentuate such a feeling. [2]

1.3. Forms of Entrances: -
Flush entrance is the most common and simple entrance to any built form. It maintains the continuity with the adjacent walls. If desired it can be deliberately obscured. “Figure 8” The Projected entrance gives an inviting look to a built form. These entrances announce their function to approach. It provides shelter overhead. Canopy and porch entrance come under this category. “Figure 9” The Recessed entrances are provided when the two built forms are to be clubbed together. It provides shelter and receives a portion of exterior spaces into the realm of the building. “Figure 10”

In each of these categories above the form of the entrance can be similar to and serve as a preview of, the form of the spaces being entered, or it can control with the form of the spaces to reinforce its boundaries and emphasize its character as a place. [3]

2. Entrance of early ages: -
Down the ages, buildings have been built primarily to satisfy human needs, their works, religion and pleasure. Religious buildings were given a lot of importance in various civilizations. The entrance to these served as the dividing line between the sacred and profane between the darkness and light, between earthly and heavenly. The entrance design as far as the shape and the size of the opening was concerned. Depended on the construction technique and material. Thus, it important to study the various historical built forms to trace the entrance design.

2.1. Egyptian Civilization
In Egyptian civilization tombs & temples were two important buildings of this type: -
The tomb of three types: -
a) Pyramids
b) Mastabas
c) Rock Hewn
The entrance to these was not given too much importance, as they were not being entered frequently. Mastabas often had false doors with murals. (Figure.13) Entrances to rook hewn tombs had a colonnaded front, the column have a distinctive character. The temple on the other hand had impressive entrances. They were in most cases flanked by massive rock cut statues of king under whose rein they were constructed for example great temple at Abu symbol. (Figure.11)
Another elements characteristic to entrance in entrance in this era are Obelisks. (Figure.12) This was a large size decorated pillar monolithic in plane, tapering upwards and converging to a pyramidal end with a metal capping at the summit. It was used in flanking the entrance. [4][5]

Example:- Temple Of Khons At Karnak
Founded in 1400 B.C.E., the Luxor Temple is a vast complex of ancient Egyptian temples situated on the eastern bank of the Nile River in the modern-day city of Luxor. A cult statue of Amun was paraded down the Nile from the nearby Karnak temple to stay there for a while, with his consort mut, in a celebration of fertility – hence its name – and the temple was built during the new kingdom. Known in Egyptian as ipetresyt, or “the southern sanctuary,” it was dedicated to the Theban triad of Amun, mut, and chons. [6]

2.2 Ancient near east
In the ancient near east, the basic difference between entrance design of the Egyptian and in ancient near east the usage of arches was done to span the opening as seen in the Ishtar Gate (Babylon). The usage of steps to highlight the entrance area has also been used in the case of Ziggurat at Urnammu, There are three sets of staircase which leads to central gateway. Another staircase further leads, one to the entrance of the temple at the peak of the ziggurat at that level this separates the earthy from the heavily.

Ex: - Ishtar Gate “Figure 14”
The Ishtar Gate was the eighth gate to the inner city of Babylon. It was constructed in about 575 BC by order of King Nebuchadnezzar II on the north side of the city. Only the foundations of the gate were found, going down some 45 feet, with molded, unglazed figures. The gateway has been reconstructed in the Pergamon Museum, Berlin, from the glazed bricks found, so its original height is different in size. Reconstructed height is 47 feet. [7]
2.3. Indian Subcontinent: -
In the Indian Subcontinent the earliest settlement in this area was that of the in Indus valley civilization. The method of spanning with the help of corbelled stone was introduced. Religion being of up most important in this region. The entrance this again was of a very sacred quality. In Buddhist architecture rock cut chaitya were main structures, used as halls for meditation. One important feature accompanying the entrance to these halls was the chaitya arch (Figure.15). It was a horseshoe shaped arch symbolizing the sun, which in turn symbolized enlightenment. In some chaitya halls there was a large window in shape of chaitya arch, which was placed over entrance opening. The area in front of the entrance in monasteries had porch covered by balconies. The entrances of Hindu temples had carvings of Hindu gods and goddesses on them frame work or on the columns in Mandapa or the porch. [8] [9]

Examples:

2.4 Greek Civilization: -
The Greek civilization must be accepted as the foundation upon which European architecture was built. Lions gate at Mycenae in very good example of interlinking structure and art form. The opening to this was spanned both by lintel and corbelled arch, leaving a triangular space between them. This space has been effectively used by placing of a sculpture of two headless lions, symbolical protecting the indoors. In the Hellenic period the entrance became the elevation façade itself. The entrance porch had a height, nine times that of a human and the doorways was at thrice times the same height. The basic shape of entrance porch including the pediment was derived from Greek hut. The propylaea at atheus forms an imposing entrance to the acropolis. It has five doorways of different heights by climbing up steps.

Sculptures & Murals: “Figure 16, 17”
Sculptures and murals provide a link to the nature of the activities with a building. They give a symbolic look and convey the usage of the building. If places around the doorway, it should be easily seen from the approach to the entrance. They act as a second frame to a doorway and should relate to door in terms of scale.
Give the empowering impact. The work of art near the entrance of the building in commercial setting needs to be quite visible in terms of scale. The aim is to attract customers. They should be in a visual frame of the entrance and can be placed along elevation façade over the entrance. In such cases canopies over the entrance should be avoided as it breaks the visual link from the ground. Steps can also lead to aesthetically pleasing mural which directs you towards the doors on either side. In number of civilizations, including the Assyrian, important doorways and gateways are symbiologically guarded by stone sculptures of mythical beasts, lions, or human figures.[10]

Example: - **Brandenburg Gate** “Figure 18”
The Brandenburg Gate is a former city gate, rebuilt in the late 18th century as a neoclassical triumphal arch, and now one of the most well-known landmarks of Germany. It is located west of the city centre of Berlin at the junction of Unter den Linden and Ebertstraße, immediately west of the Pariser Platz. The gate became a symbol of freedom and unity, before it was the gate that divided the British and the Soviet sectors of Berlin. Before the Berlin Wall was built vehicles and pedestrians could pass through the gate, now only pedestrians can pass. The Gate is located west of the heart of Berlin and is the great entryway into the Unter den Linden, which leads to the city palace of the Prussian Monarchy. The Gate was commissioned by King Fredrick William II of Prussia, as a sign of peace, who reigned from 1786-1797. Carl Gotthard Langhans built and designed The Brandenburg Gate after the Propylaea, the gateway into the Acropolis.

**Ancient influence:**
The Brandenburger Tor's design, like a much of that era's architecture, is influenced by classical Greek architecture, bearing striking similarities to Athens' Acropolis gate. The Brandenburger Tor is 26 meters high, 65.5" wide, and 11 meters deep. The main feature atop Brandenburger Tor is a massive statue. This is the quadriga, a chariot driven by four horses. Victoria, the Roman goddess of victory, is at the wheel of the chariot. Johann Gottfried Schadow invented the quadriga in 1793 as a peace emblem.

**Victoria:**
What most people are now aware of is that the monument atop Brandenburger Tor has undergone multiple changes over the years, despite the tower itself remaining largely unchanged. Napoleon I, the French leader, ordered the statue to be brought to Paris as a symbol of French dominance following the Prussian loss against him in 1806. It was only at that location for eight years before the Prussians took it back and relocated it to Berlin. The surrounding area was dubbed "Praiser Platz," the Paris area, in honor of the Prussian victory, after the statue was returned from Paris. [11]
2.5 Roman Civilization

In the Roman civilization entrance was of portico style main difference occurred due to the use of different construction technique for spanning the opening namely the arch. It was extensively used within being forms as well as in commemorate to gateway such as triumphal arch. [12]

Example:- Porta Nigra “Figure 19”

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It is symbolically appropriate that the great revolutionary came from a town intimately associated with revolutionary change, engineered by Augustus and Constantine long before Napoleon arrived;[13]

2.6 Romanesque Architecture: -

In the Romanesque architecture the style gave rise to three basic types of entrance façade based on roman architecture with few on roman modifications. The first included the tympanum with a semicircular arch over the door. The second type had an arch with a triangle over the door entrance. The third type was introduced in French Romanesque architecture had recessed jamb which gave the
appearance of concentric doorways.

**Example: - Doorways** “Figure 20”
Doorways constitute one of the most significant aspects of exterior architecture, generally occupying a central position in the elevation and defining the character and function of the building – whether public or private. Doorways are also the architectural focus the style of the whole façade. In various examples the entrance extends to a portal involving the balcony above or an entire vertical section of the elevation. Doorways represent the passage from exterior to interior, and the themes the articulation and sculptural decoration of the door case. Being the most vulnerable part of the elevation, doorways are often porticoes to divert rain, and symbolically by the use of heavy, defensive masonry or sculptures standing guard.

![Figure 20](image1)

![Figure 21](image2)

A tympanum, also known as a tympana in plural, is the semi-circular or triangular ornamental wall surface that encircles an entrance and is enclosed by an arch and lintel in architecture (Figure 21). It frequently has sculptures and other decorations or images. Architectural styles typically incorporate this feature. When found on religious buildings, tympana typically feature religious themes and are frequently the primary or only place for colossal sculpture outside of a structure. This is especially true of ancient Greek, Roman, and Christian architecture. Major examples of classical architecture and classicizing styles from the Renaissance onward are typically triangular; semi-circular, or a thinner slice from the top of a circle, is the shape found in Romanesque architecture; more vertical, or reaching a point at the top, is the shape found in Gothic architecture. These forms naturally impact the standard sculpture compositions seen in the tympanum. [14]

### 2.7 Gothic Architecture

In the Gothic architecture under this style brought structural revolution. Flying buttresses were used for the first time in reducing the lode on the wall. Thus, in turn resulted in the construction of very high pointed arches and rose window above the entrances. Another characteristic feature was the use of portico less entrances. The entrance however retained the recessed jambs as used in entrances to the buildings of Romanesque architecture.[15]

**Example: - Holsten Gate** “Figure 22”
The Holsten Gate (also known as "Holstein Tor" or "Holstentor") is a city gate that delineates the western edge of the historic center of Lubeck, Germany. With the exception of the Citadel Gate
("Burgtor"), this Brick Gothic structure is the only surviving example of Lubeck's medieval city defenses. Due to its well-known arched entryway and two round towers, this German city is now recognized as a symbol. In 1987, it was inducted into the UNESCO World Heritage List with Lubeck's old city center, or Altstadt.

The Holsten Gate is made up of two round towers with an arched entranceway between them on the north and south sides. The structure has four stories. The fortified gate, a landmark of Lubeck, symbolizes the confidence of the old Hanseatic League Queen as well as the well-defended medieval town. Through the years, Lubeck, a prosperous Hanseatic city, felt the need to defend itself from outside dangers with ever-stronger walls and defenses. The Citadel Gate in the north, the Mill Gate in the south, and the Holsten Gate in the west were the three gates that opened into the city. The dammed Wakenitz River guarded the city to the east. The Huxter Gate, which led out of the city, was less martial here. [16]

![Holsten Gate Image]

Figure 22

2.8. Chinese Civilization

Example:- Pai-lou “Figure 23”

It is suggested that the Chinese paifang may have been derived from the torana temple-gate in ancient India, though it has taken on traditional Chinese architecture. As an accessory architecture, the archway firstly serves as a gateway and decoration of the main building. Many shops create archways to prettify its entrance and attract customers. Meanwhile, traditional Chinese archways generally carried inscriptions to propagate certain moral principles or to extol government achievements. In ancient China, for example, many widowed women, fettered by the feudal ethical code, refrained from remarriage just in the hope to have "archway of chastity". These look like toranas of Buddhist style. These are erected as memorials of distinguished persons. These are built either in wood or stone with one or three openings. The horizontal rails, supported on vertical posts bear inscriptions. The projecting roofs are covered with colored tiles, whose angles are turned upwards. [17] [18]
2.9. Japanese Civilization
Example: Torii “Figure 24”

Typically located at the entrance of a Shinto shrine, a torii is a traditional Japanese gate that represents the passage from the secular to the holy. A torii’s purpose is to indicate the entrance to a place of worship. Because of this, the best way to tell a Shinto shrine from a Buddhist temple is to look for one or more Torii that cross the road leading to the shrine. When the Sandō travels beneath several Torii, the area outside of them is referred to as ichi no torii. The ones that are next to the shrine are typically referred to as ni no Torii and san no Torii, in that order. As one approaches the inner sanctuary (honden), the center of the shrine, additional torii might be found farther inside to symbolize progressively higher degrees of holiness. A Torii is also placed in front of each Emperor's grave due to the close ties that exist between Shinto shrines and the Japanese Imperial dynasty.

In secular situations, the Torii is occasionally utilized as a symbol of Japan as well. It is the emblem, for instance, of the 101st Airborne Division, the Marine Corps Security Force Regiment, the 187th Infantry Regiment, and other US forces stationed in Japan. [18] [19]

2.10 Islamic Architecture

In the Islamic architecture the entrance to mosques and tombs were highlighted by use of pointed arches. The arch in most cases was a true arch although example of corbelled arches can be seen in some parts of India. Construction of doors was complex for decorative reasons. It included skillful assembly of large number small components. Motifs around entrance doorframes were derived from calligraphy
floral decoration & geometrical interlacement. [20]

**Elevation Treatment** “Figure 25”: -
It can reduce the scale of building viz a viz the built form. This can be achieved by usage of same material on a large part of the façade as the one used on entrance itself. Using an apparent of the door can also do it. For e.g.- recessed entry portals are scaled to the dimensions of the façade and can be seen entry portals are scaled to the dimensions of the façade and can be seen or recognized at a distance as the building entrance. As one gets closer however we see that the actual entrances are really simple door within larger portals and are scaled to the human. Apart, from these recessed niches can also be used as apparent entrances as was done by Mughals.

![Figure 25](image1)

Example:- Buland Darwaza “Figure 26” :-
The largest gateway in the world is called Buland Darwaza, which is Persian for "great" gate or "Gate of Magnificence." In honor of his triumph over Gujarat, "Akbar the Great" erected Buland Darwaza in "Fatehpur Sikri" in 1572. Known as the "Gateway of Magnificence," it is the largest doorway in the world. In history it was used as a tower of victory or fame and now a days for tourist attraction point in Fatehpursikhri, Ajmer. The central one of these small arches leads one to the courtyard of the mosque through a dome passage within attendant’s rooms on either side. The platform over which the building rise is 42’ from the ground level- approached by a grand flight of steps which spread out as they descend. The central framed arch is flanked by soaring thin minarets and chamfered back broad surfaces that accentuate the verticality of the 134’ high portal. On the top is the parapet and domed kiosks. [21][22]

![Figure 26](image2)

3. Entrance to different building types

3.1. Entrance to residential buildings “Figure 27”:-
A recessed entrance is the most common entrance of housing, which also provides shelter. Front porches are also used which provides shelter for inviting panelling door, Sometimes entrances include in itself a changing feature with a water body approached by covered walkway, once inside the feeling of spaces continues to impress. Over hanging roof provides a highlighting feature to the entrance.
Entrance highlighted by a small puncture and a non– breaking of vertical surface, which accentuated the solidness and massiveness. Sometimes entrance in at higher level approached by steps with landscape feature on both sides. Entrances are sometimes patterned with use of different colors or are enhanced by
plantings and masses of stones.

Over hanged roof highlighting the entrance (Figure 27)  

Figure 28

Historic houses frequently include porches and entrances as their main features. When planning rehabilitation work, they should always be carefully studied because, in addition to their functional and decorative elements like doors, steps, balustrades, pilasters, and entablatures, they can play a significant role in defining the restoration. A covered platform near a building’s entrance that typically has its own roof. A verandah is an open or enclosed gallery or chamber that is joined to the exterior of a structure. A covered walk or portico is obsolete, a structure that is commonly a covered entrance that is affixed to a building’s façade. It aids in locating the entrance along a lengthy façade with a basic elevation. People are occasionally drawn into the structure from the pedestrian walkway itself when it is extended to the site's borders.

Particularly in the southern United States, the porch is frequently as wide as it is deep, offering enough room for residents to host visitors or congregate on special events. When covered, it can act as an additional outdoor room that can house chairs, tables, and other furniture and be utilized as a living area in addition to offering shelter from the sun and rain. Porches come in a variety of styles, all of which are influenced by the local architectural heritage. For example, the sides of a building and verandas. “Figure 27” [23]

3.2. Entrance to campuses (institutional/residential) “Figure 29, 30” :-

The main entrance if given a heightened importance generally it is double heightened. Entrance heightened by slightly projecting out the first floor. Sometimes cantilevered or supported on columns. Use of different materials like use of stone cladding brick textures or coloration also adds emphasis to the entrance design. The steps or the ramped wall at the entrances also highlights the main entrance. The main entrance through certain blocks, which in turn balances the other teaching towers. The landscaping features are often used to highlight the entrance sometimes large trees frame the main entrance. The main entrance may often be of single storey and covered by different roof form. [24]
3.3. Townships “Figure 31, 32” :-
Township design has traditionally included gates as a crucial component. It was regarded as one of the most crucial elements of township planning from the beginning of time on all continents. In the past, a gate's primary purpose was defense, but it may also be used to demonstrate a location's power, wealth, and cultural legacy. A gate might not initially seem like a significant aspect of your community, home, or life in general. A gate, however, can significantly raise a township's value from an architectural and aesthetic standpoint in addition to giving homeowners a sense of protection and mental comfort. A well-thought-out gate provides a feeling of security. Since a gate is the first structure a visitor sees when entering a township, it is crucial that it both display what they are going to see and match the overall theme of the township in terms of architecture. It is important to make sure that every one of the aforementioned factors matches while building a gate. [25]

3.4. Entrance to commercial premises:-
Offices: Since an office is formal business place, the entrance should be easily approachable and seen. Surface parking should be away from line of sight of the entrance as it is an unpleasant one. In case of multiple entrances more emphasis should be laid on the entrance to the main lobby in comparison to the entrance of individual offices. The hierarchy of comparison to the entrance of individual offices. The hierarchy of entrances should be maintained.
Shops: The basic elements of a shop front are the fascia, sign, display, windows and entrance of these the entrance being an integral part of both exterior and interior most influences the planning layout and appearance of the shop and therefore demands primary consideration. The position of the entrance should be determined not only for desire of symmetrical balance front but so placed to bring customer into the shop without conscious intention or effort. Its setting will therefore, depend on the pattern of
movement. The design of the main entrance has to be played around in order to create more display area and direct axis into the shop by following methods.

**Flat front:** Most common type of the entrance. “Figure 33”

![Figure 33](image)

**Slopping front:** The sloping front leads shoppers unconsciously to the entrance and presents goods more on the right angles to the approaches. “Figure 34”

![“Figure 34”](image)

**Recessed front:** The recessed front gives space for window – shopping without being jostled.

**Arcade front:** the arcade front though able to show great range of goods has many problems of display and entrances tends to show great range of goods has many problem of display and entrances tend to be hidden. This it will be obvious, the width of the entrance or width of doors increases in proportion to the capacity of the shops. Steps form a physical barrier and should therefore be avoided while ramps are really bad. A single step two to three inches high may be more dangerous than a number of steps, which would be more visible. Where change of level is essential the steps should be placed well inside the shop, this forming part of interior. “Figure35”

![Figure 35](image)

Steps: Steps are the single biggest barriers to independent success for people with mobility impairments: many small shops and other businesses are located in premises where are one or more steps to the front door. Helps in mental transition from one to another, in which case, the areas have different nature of activities. E.g. – movement from crowded sheet into a museum. They could have an imposing scale symbolizing the power on behalf of the building. If you want to hide or wants to show the activities inside the building from the crowded sheet. “Figure 36” [26]
4. Conclusion:

The limit of words and thought are while describing the significance, origin and other mutual parameters of entrances. Entrance can change the appearance of a space and create the atmosphere necessary to spiritual function of architecture. Employed as an active element in architecture even the work of art can play a most important functional part.

Thus one can say that the entrance is more than the means of entering or exiting a building, it can be an element of social presentation for the building, it can provide cultural expression for the building in terms of both art and architecture and more so, it can influence the way one feels one enters it. If designed well it can orient visitors, easy access and exit and save energy. Entrance also provide security and mark the beginning of new territory.

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