

The conceptual idea of the opening design in ancient Egyptian domestic (Residential) buildings

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Summary

This study aims to focus on designing the openings used in residential buildings as well as the symbolic meaning and environmental needs, which affects the design, as Ancient Egyptian always designing within concept.

The ancient Egyptian was more interested in building temples and cemeteries to last forever which reflects his very sincere belief in the other immortal life. As a reflection of his interest in the construction of residential buildings for the ruling and public families alike, he built them with ephemera, such as plants and bright bricks, which classifies plant and clay architecture, whose traditions continued until the end of ancient Egyptian civilization, despite its survival to this day in Egyptian villages. There are only foundations left of these residential buildings, but fortunately the ancient Egyptian was keen to record the details of his life on the walls of tombs and temples, as well as some stereotypes of what these buildings were in very precise detail.

This has aroused the interest of the researcher in studying entrances and doors by asking questions:

1. What is the concept of linguistic and symbolic openings about the ancient Egyptian?
2. What are the design elements and principles used in designing the slots in different buildings to achieve the desired impression?
3. What factors influenced the design of windows and entrances?
4. If the coffin depicts the facade of the palace from the outside, why is it depicted on the coffins of individuals? Is it public or footnote?
5. How the ancient Egyptian designed and executed doors and windows of wood, despite its scarcity and poor quality in Egypt.

Research procedures:

The study is divided as follows:

Symbolic value of the door or entrance to the ancient Egyptian

Symbolic window value

Design of slots in both palaces and houses

Each will be examined as follows:

The symbolic and expressive phonetic value of the entrance (section): It deals with the name of the door (entrance) in the ancient Egyptian language and its symbolism in the ancient Egyptian faith and how it is expressed in the ancient Egyptian language in each of the aforementioned buildings, referring to the types of entrances depicted through the expression of hieroglyphs, their names, meanings and whereabouts.

Sources of slot models from entrances and windows: wall photography - stereoscopic models - depicting the façades of palaces on both the Horsi name and the coffins.

Description and analysis of aperture models: The design of both the entrance (door) and window in each type is accurately described by displaying various models, the design analysis and its ability to express its own building.

Symbolic value of openings:

The entrance (door) and the windows of residential buildings are separated between two worlds, one private interior and one general exterior. The outside world is public, work and other social and political activities, while the inner or private world represents tranquility, family atmosphere. Openings are an essential source of light and ventilation, as well as their role in protection.

Windows have played relatively small lighting and ventilation to the modern state, where sunlight penetrates the interior of the building.



Openings in royal palaces:

Ancient Egyptians regarded the royal palace as a symbol of power and state and called it The Great House, it has been used since the beginning of history in conjunction with the name of the King. "Sarkh," under the name of the king, remains of the royal palaces only a few simple foundations belonging to the modern state, which are the palaces erected to perform the religious rituals of the temple, where they were erected near the temple, especially in the era of Ramasa, as in the temples of Seti I, Ramas II, Maran Petah and Ramas III in the temple of Taiba. "Ann Petah" passed near the temple of Ptah al-Kabir and looked at its large area, which was considered by the archaeologists to be the seat of government, located in Kom al-Qalaa, as well as the palace of Amenhotep III in the western mainland of Thebes, the palaces of Akhenaten and Nefertiti in Amarna.

1.The Entrance:

"Sarkh" depicted the entrance to the palace with its façade known as "Sarkh" in the king's Horsi name from pre-dynastic times and continued until the end of ancient Egyptian civilization, as well as on the walls of coffins.

1-1 Phonetic value in hieroglyphic writing: Entrance at the front of a cemetery or 

palace (srḥ) followed by custom (). The sign () also appeared to reflect the facade of the palace.

1-2 The idea (concept): To build a large entrance befitting the grandeur of the Royal Palace, a brick building that simulates the style of plant architecture, and thus the element of prestige and grandeur must be achieved, which the ancient Egyptian designer succeeded in achieving through the height of the portion of the entrance and to occupy the door close to the middle of the entrance.

Entrance to the Palace with the name Al-Horsi:

• **Fig.1. Tombstone (stela) of King Dejd, Stone Jerry, 65 × 250cm, First Dynasty, Louvre Museum, Paris.**

The stela takes the form of a rectangle with the upper side of a curve, which is a microcosm of the universe where the curved line expresses the dome of the sky, while the two sides depict the columns of the sky and the line of the earth down where the depicted facade of the palace, which is topped by the name of the king, is anchored in the form of a snake and is topped by the Hor-Aha falcon, which is called the Horsi royal name.

The researcher finds that the artist showed only two inputs in the design of this interface that he emphasizes through the horizontal and vertical beams sliding inward to finish with the door opening while he did not depict windows at the same level with the probability of representing the windows at the upper level where the width of the top of the three separating towers depicted multiple vertical protruding beams in the third bar of the top permeates. If so, they are more likely to be protection and surveillance holes than lighting and ventilation holes, the general shape suggests a fortified castle fence or castle façade.

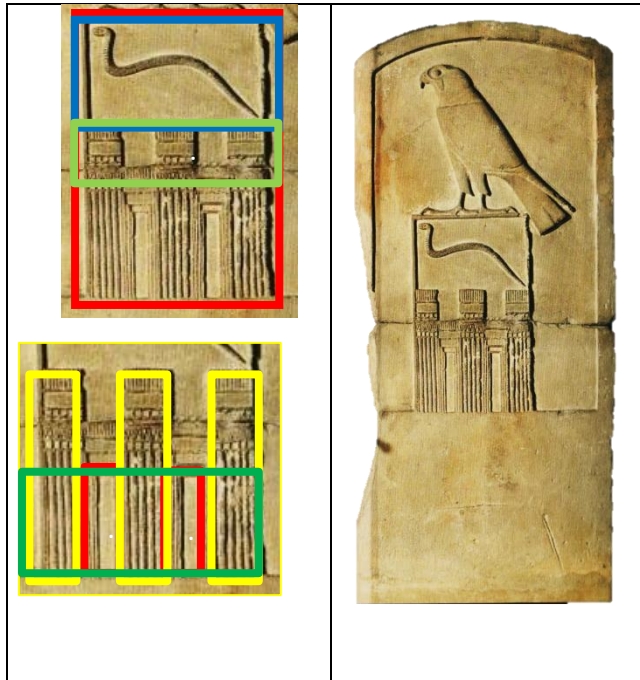


Fig.1. Tombstone (stela) of King Dejd, Stone Jerry, 65 × 250cm, lime stone, First Dynasty, Louvre Museum, Paris.
Cartocci,A; Ancient Egyptian Art, AUC press, cairo, 2009, p31

Analysis and commentary:

The artist here relied on the straight-line element, both vertical and horizontal, despite the dominance of the vertical line over the overall design, to reflect the towering height of the façade and give the impression of glory, transcendence and prestige appropriate to the facade of the royal palace. The artist has taken an attractive way to the place of the entrance by surrounding it with vertical lists that exceed its height to form what looks like towers with the layout of the space above the entrance with geometric units culminating in Corniche. The artist here is interested in the relationship of the part to the whole, which is what we find in the ratio of the input to the whole interface and the emphasis on it through the design in the mesh frame of the rectangle unit in the modules here.

2. The windows:

2-1 Phonetic value of the window in hieroglyphic writing: Figure () expresses window in hieroglyphic writing.

2-2 The idea (concept):

• **Fig.2 Stone Window from Mer-in- Ptah palace in Memphis, limestone, Nineteenth Dynasty, New kingdom, Philadelphia Museum.**

Although the palace was built of mud bricks, some architectural elements was built of limestone, such as columns, door supports, and windows with mesh holes.

Comment and analysis:

The upper part of the window of the King's Palace bears important symbols, the first of which is the shape of Sphinx, which consists of a lion's body and a human head of the king with a mongoose robe, a false beard and a royal cobra on his forehead, as well as two tangential papyrus flowers, which were frequently used in the design of the palace facade under the Horsis name.

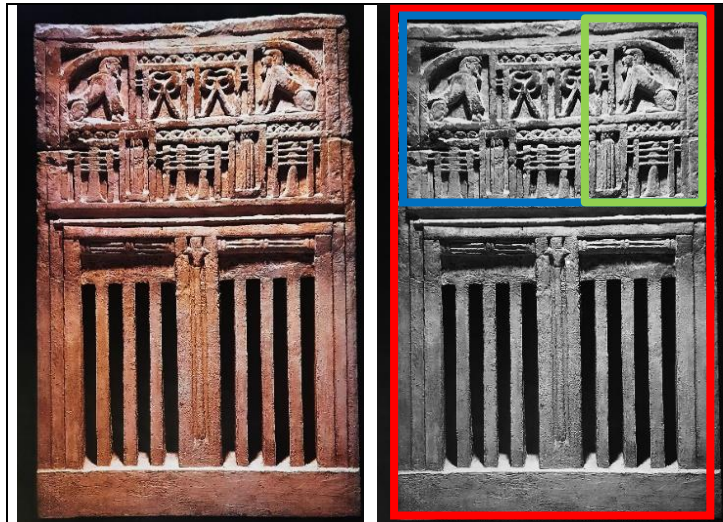





Fig. 2 Stone Window from Mer-in- Ptah palace in Memphis, limestone, Nineteenth Dynasty, New kingdom, Philadelphia Museum.

frequently used in the design of the palace facade under the Horsis name.

In Lower Frieze, the column of djd () was repeated in three parts, separated by a rectangular space with contiguous vertical lists, and the design as a whole reflects the universe from the point of view of the ancient Egyptian ideology and art. This represents the sky and the king is depicted in a compound of the king's human head with the mongoose headdress led by the cobra snake while the body is of a crouching lion. (Sphinx ) with the tail wrapped around the thigh to express the tranquility of the king as if carrying the sky from its edges, while the broad line of the earth below (). In the sense of stability, the artist also made four ribbons in which he repeated his head of Hor-Aha in a front view position, one of them is in the middle of the sky line, the other three are distributed at the top of the testament columns, and of course there is a poplar representing the living king, the idol of the sky, and the younger poplar, the protector of the king, and his representation here confirms the use of this window in a worldly building where the living king is. The repetition of the four strips in this form is more likely to indicate the four original directions as a metaphor for the king's control of the entire universe under the protection of the idol Hor-Aha, the bottom of the window suggests it's two identical ribs like a general design. Top each ribbed cylinder with vertical breaks as a simulation of the rolled-up mat (Tucked up). The beams of the two ribs are separated by a column of papyrus which is carried over its crown as a whole.

This represents the heavens and the king is depicted in a compound of a human head to the multitude.

Analysis and commentary:

The Old Egyptian relied mainly on the design of the windows on the straight line, where the windows took a rectangular shape, with wide vertical openings and multiple window materials, including stone, as in the window of Maran Petah. He was also interested in dividing it horizontally into two halves so that the upper part fixed in the form of (fig.2) decorative shapes or religious symbols, as in the window image (fig.2), and the lower part, which consists of two

ribs and is divided longitudinally into vertical beams, although the effect of the material here requires the design to be fixed or mobile. Of course, if the window is stone, both parts are fixed, unlike the wooden ones. And both halves might be the same shape divided by vertical legs, although it is possible that the space between the beams is also designed, the design of these windows is close to that of the column lobby of Karnak temples.

Discussion and conclusion

In observing the design of the architectural facades previously addressed and confirming the location of the entrance and the frequent geometric decorative units surrounding it, we have in mind the Nubia houses and their geometric shapes, which may be an extension of their ancient Egyptian origins.

Results:

1. The doors and windows are made of wood, stone and bronze in both clay and stone buildings.
2. The entrance depicted on the King's Horsis name expresses the outer wall of the city or palace. Most of the explanations are collected in the event that high towers and many doors are photographed, while the palace is expressed in the case of a small height and one or two doors at most.
3. Bearing in mind that the ancient Egyptian may have preserved the traditions of depicting the facade of the palace from pre-dynastic times until the end of civilization symbolically and not simulated with nature in the era associated with the King, architecture has evolved and differed in design and construction from pre-dynastic times to the end of ancient Egyptian civilization, it is illogical that the design of the palace has been constant throughout this period. This is a controversial point that needs more recent discoveries and research to come to a definitive conclusion.
4. The sarcophagus depicted by the King's Horsis name is indeed the façade of the palace and the vertical lines depicted within the various decorative units are nothing but windows and openings and are not scheduled mats as explained by many archaeologists.
5. It is inferred from the design of the façades that the artist relied on the network of boxes found in many graves, which were commonly used when photographing people to maintain the proportions between the different sizes of the persons depicted.
6. The depiction of the façade of the palace on the coffins of the general nobles and the elders of the State is due to the mediation of the King among the common people of his people and the deities.
7. The mastery of the ancient Egyptian artist in achieving the elements of unity and diversity in his designs.
8. The ancient Egyptian shepherd is to occupy the entrance to houses and palaces one third of the façade in most of the photographs, thus helping to determine the height of the building.
9. Ensure that there are two inputs to the palaces and some of the houses of the nobles, indicating that privacy is taken into account and that the interior is distributed to private and public spaces.