

The Throne of King Tutankhamun as Egyptian environmental System

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Abstract:

The ancient Egyptian, since the very beginning, associated with the surrounding environment, representing in the Nile, earth and heaven, including the sun, moon and stars. The sun rises and sets. The size of the moon varies across passages of disappearance, growth and completeness. The Nile level varies throughout the year during the flood that regularly occurs. The continuity of such image gave the ancient Egyptian the sense and feeling of the unity of the variable universe. The ancient Egyptian's concept of the universe represents in two straight and crossed meanings. The first meaning extends in the form of a line with the flow of the Nile in its course from the south to the north, cross-cutting with the second meaning, stretching throughout the sky with the sun's daily journey from the east to the west. Therefore, the Egyptian designer remains controlling the surrounding environment, which makes him fond of the idea of **eternity and renewal**. The ancient Egyptian always refers to the eternal truth (renewal and continuity). The land of Egypt constitutes the source of truth, whereas it remains forever, moreover it is the whole universe. Hence, all the ancient Egyptian's products reflect such idea. The temple embodies the story of creation on the land of Egypt, so what about furniture? Particularly the furniture in the complete and mature image was represented in the Throne of King Tutankhamun. The significance of research is defined through attempting to answer the following questions:

- Is the furniture represented in the throne of King Tutankhamun reflection for the same Truth (renewal and continuity)?
- Is the throne of the king Tutankhamun expression of the land of Egypt?
- Does the throne of King Tutankhamun hold an Egyptian integral environmental system?
- Can we through the environmental system reach determinants, in order to rely on, Designing furniture, to grant the same wealth and cultural exchange?

Keywords: the Throne, King Tutankhamun & the Egyptian ecosystem.

Introduction:

The utilization of furniture goes back to the prehistoric age, with moving the first communities to stability, when man recognizes the concept of home and dwelling, then resides at caves, caverns and above rivers. At communities need closed dwellings, due to climatic conditions and squatting of tree trunks and branches, the furniture is quickly developed. Man made terraces for comfort/ rest and sleep. Then, the need to fabricate separated pieces of furniture is arisen. At the very beginning, chairs are made of stone in the form of cubic pieces. Then, the bases of chairs were made

from wooden. The seats were made from even slicked flint, and then become concave later. The function of a piece of furniture was the more important. Within the development of agricultural communities, the form acquires identified role besides the function. The chairs become simple pieces of wooden with a few decorations, easy to be carried and transported, in geometric formations or in the form of animals' organ with low height (25 cm.). Then, the chairs' bases were made of strings in geometric knot work. Soft mattress of animal skin or of cloth is added to the base. Within the passage of time, backs and arms were added

to the chair. Then, they became easy to be carried and moved within trips and battles. Chairs were specialized for kings, retinue and important people. Then, the chairs were supplied with footholds, carrying photos of enemies. Kings' chairs, particularly in the modern state, represent maturity and completeness passage, holding both functional and aesthetic values. The throne of King Tutankhamun is deemed an example, whereas the latter includes, within the front and side five falls, the horizontal fall in addition to the rear one, a number of elements and factors of the Egyptian natural, social, religious, political and economic environment. Therefore, such throne holds an integral environmental System, representing the land of Egypt and the reality. Such system is reflected through thought built on the concept of eternity and continuity, through ores, which most of them are made of the Egyptian environment as well as techniques newly invented by the Egyptian mind at that time.

The Research deals with confronting of Problems, representing in:

- Overlooking the role of environment, upon Analyzing the ancient Egyptian's pieces of the Furniture.
- Deficiency in detecting the environmental System underlying in the throne of King Tutankhamun

The research assumes that the throne of King Tutankhamun is a product carrying integral Egyptian environmental System. Furthermore, considering the Egyptian environmental System, upon designing furniture, particularly chairs, grants the throne intellectual wealth and civilization exchange.

The Research aims at:

- Detecting the ingredients of environmental System in the throne of King Tutankhamun.

- Access to environmental determinants, to be employed, upon designing furniture.

In order to achieve such objectives, the historical, analytical descriptive as well as the deductive approaches/ methods are employed.

1. The Environmental System:

The environment is everything surrounding man, outside the limits of direct man's object locally, globally and universally. The environment shall be divided into three kinds:

Natural environment, which includes water of oceans, seas and rivers, it also includes dry ground such as: plains, valleys, dunes, deserts, mountains and oases. The natural environment includes also various atmospheric layers and celestial bodies spinning around us and vice verse.

Organic environment integrating with the natural environment, including animal life, whether for man, animal, insects and plant life.

Industrial environment, entirely made by human, which is social, cultural, ideological, economic and political environment and relationship between the one community's members or between one community and the other. Figure no. (1).

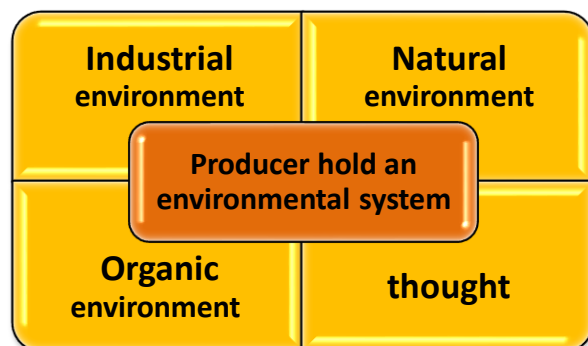


Figure. no. (1. 2Environmental system involving the surrounding environments and interaction with it by thought

(1-1) Environmental System on the Land of Egypt:

The nature and form of the Egyptian land greatly affects the formation of the Egyptian civilization environment. On both banks of the narrow, long and tortuous Nile valley, there is muck (black earth). Egypt is a longitudinal oasis with regular features, represented in stable dry climate, the Nile's regular flood, with perpendicular movement for the sun, from the east to the west. All such phenomena provide clear form of a stable life. **Such life makes the ancient Egyptian believes the following:**

- The land is flat; Egypt is located at the centre. At the earth's four corners, there are high mountains, made of iron, upon which the sky is based. There are holes interspersing such dome. The referred holes are useful, when darkness falls. The gods promptly hang lamps through such holes, and then draw the same "lamps" when the dawn approaches. The sun begins its daily, renewable and ongoing journey.
- The best way to connect to the supernatural powers is to settle the same in specific and visual frame or scope, in which all traits reflecting supernatural powers can be gathered such as the physical embodiment for a number of gods with organic environment's symbols such as animal and plant life, besides symbols of natural environment like air, sun, moon, stars or inanimate objects. Figure No (2)



Figure No (2) the embodiment of some ancient Egyptian gods Apopis and Horus and Anubis in pictures of different environments represented in humans and animals, and Heavenly mass.

- Language is a mean of social gradation and caste distinction. Moreover, it is the most important tool for spreading religion and thoughts in Egypt. The letters of the ancient Egyptian language have been signs standing for objects belonging to the multiple environments on the land of Egypt, like the natural environment, represented in water, mountains, celestial bodies, organic environment, characters and bodies of people, animal and plant, besides the environment established by man such as furniture, buildings and machinery. All the referred signs are designed forming the hieroglyphic writing. The Sacred inscription in the Greek. At the beginning, the hieroglyphic language was associated to the religious texts only, and then extended to cover general subjects. The hieroglyphic writing was shortened to the hieratic writing (clerical/ priestly writing) with the late period of the ancient Egypt, then was shortened more and more to the demotic writing (popular writing).

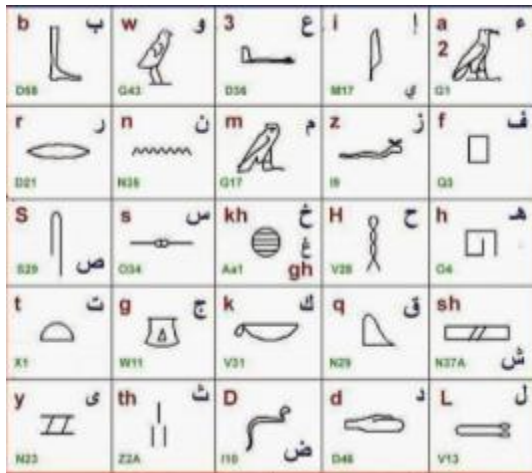


Figure No (3) hieroglyphic language are specific means of expression of the idea through the natural environment and the built environment and organic

- The ancient Egyptian temple is a symbol of the established environment. The temple is the land of Egypt, the black earth (Kmit). Egypt is the whole universe's imagery. The temple is compass representing the four directions. figure no. (4)

The land of the temple represents the eternal hill, from which the water of the eternal ocean is split, upon the beginning of creation. The huge columns in the form of papyrus flowers at the temple's courtyard represent marinated logs (swamps of logs) in Delta, allowing the God's boat to sail on. The Holy of the Holies is the highest point in the temple, which is the eternal hill, the first barrow or the throne of God Atom. Figure No (5)



Figure No (4) .The four masts symbol for four Columns leverage of the sky, which represent the four corners of the Earth.

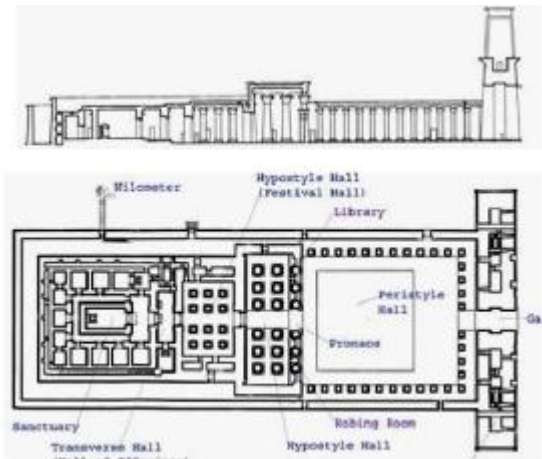


Figure No (5) papyrus flowers at the temple's courtyard represent marinated logs (swamps of logs) in Delta

Depending on the aforementioned, we can emphasize that:

- The system of Gods became a vital source for the Environmental System in Egypt. The ancient Egyptian's faith represented in the system of Gods is reflected via various environments in Egypt such as the natural, organic and established industrial environment.
- The ancient Egyptian language is another important source for the Environmental System in Egypt using signs from different environments in Egypt such as: the natural, organic and established industrial environment.
- The system of building for the ancient Egyptian is another source for the Environmental System on the land of Egypt, but also the land of Egypt that includes natural, organic and established environments.

Whereas the faith representing in the system of Gods, the language and architecture are sources of the Environmental System on the land of Egypt, does the furniture for the Egyptian reflect an Environmental System to be formulated according to the Egyptian thought that based on renewal and continuity?

2- Furniture in the Ancient Egypt:

The furniture is flourished in ancient Egypt, since the beginning of the dynastic period, whereas the ancient Egyptian uses several raw materials from the natural environment, figure no (6) and organic environment, figure No. (7) besides innovating fabricated materials and tools for the furniture industry, as well as decorating pieces of furniture with a number of symbols of the surrounding natural environment such as water, represented in the Nile river and dry earth, including plains, valleys, dunes, deserts, mountains, oases, celestial bodies in addition to symbols of the organic environment represented in the animal life of man, animal, insects and plant life figure no. (8). Such as pieces of furniture are provided with trappings carrying symbols that have social, cultural, ideological, economic and political indications among society members or between the ancient Egyptian and outsiders.



figure No. (6) the bed of King Tutankhamun foldable for trips with three sections and contain hinges and Beams of copper (natural environment)



Figure No (7) Box of King Tutankhamun is decorated with humans and animals (organic environment)

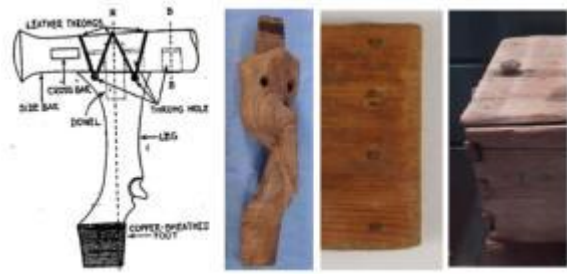


Figure No (8) Innovating Some types of links, and ligaments with thong (Industrial environment)

Thus, we find that the ancient Egyptian furniture was a reflection of the surrounding environment through the Egyptian thought some furniture pieces include raw materials of the natural environment and some of them include the environment and organic others include some Manufactured raw materials, Is this a reflection of the land of Egypt in an integrated furniture or is a mirror of the land of Egypt to answer this question it was necessary to analyze the epitome of one of the most pieces mature Furniture, which has reached us in an integrated way and in good condition, a throne of King Tutankhamun. Figure No (9)



Figure No (9) Environmental system ancient Egyptian Furniture

3- The Throne of King Tut:

The emergence of name of King Tutankhamun goes back to the light, and introducing the same to **Lord Carnarvon** and **Dr. Howard Carter**. The tomb was discovered in 1922. The chambers of the tomb were found fully stacked with furniture and other monuments. The tomb has entrance leading to the burial chamber. The said entrance is guarded by two big statues of wood. The body/ corpse is found inside three coffins/ caskets. Each casket is in the form of a mummy. The casket is made of sandstone with decorations. The casket is based on four booths of gilded wood, overlapping with each other. Examining the body, it is found that the king did not exceed the age of youth.

Historians and researchers have different point of views regarding the lineage/ descent of King Tut. Some historians think that King Tut is the nephew of Akhenaton "without confirmation". The throne has been found with a number of precious objects, which were used at the royal palace such as beds, seats and boxes. A large part thereof does not have funeral nature. Figure No (10)



Figure No (10) The Throne of King Tut, One completed forms of ancient Egyptian Furniture

(3.1) The Throne's Front view:

The height of chair is 104 cm, the width is 53 cm. the height of seat base is 51.5 cm. the height of both armrests is 64.5 cm. The throne of King Tutankhamun is made of wood covered with gold and silver, decorated with semi-precious stones and colored glass. The queen appears on the back, spraying the king with perfume. The sun disk, Aton sends the rays thereof toward the royal couple, king and queen. The king wears compound crown and broad collar, while the queen wears wonderful corona on her head. figure no. (11).

The bodies of king and queen have been inoculated with the colored glass, covered with silver simulating white linen. Both arms of the throne are protected by two lions. figure no. (12) While the rest takes the form of two winged snakes, with double crown, for protecting the name of the king. The two feet are connected by wooden link covered with gold foil. Such link is connected to the chair's base via sign, (Smatwy) that means "Unification of the two lands" embodying sacred event of the union between the north with the symbol of papyrus and the south , with the symbol of lotus. The two flowers are connected via two ropes. The two ropes are corded around windpipe, ending at the lung. The artist chooses the respiratory system, in order to symbolize the cosmic rhythm in both lands. The life of man and his continued existence in the world relies on the regular rhythm of inhalation and exhalation.

Disturbing the rhythm of inhalation and exhalation indicates human's eminent death. As human breathes the universe in general, and the land of Egypt in particular breathes. Figure no. (13) The throne has been supplied with wooden footstool, on which symbolic images are curved, representing Egypt's enemies in the north (Asians) and Egypt's

enemies in the south (African), known as the nine bows. They are tied up and lying on the ground in humiliation. The visualized birds, known in the name of (Rkett) refer to the public crowds, under the control of the king. Figure No (14)



Figure No (11) Throne back as an expression of the social environment by portraying of the marital relationship and intimacy between the king and the queen and the exchange between two pieces of shoe, King wears piece and Queen wears Other.



Figure no. (12) A pair of lions head and feet covered with gold foil at the forefront of the arms to protect King,

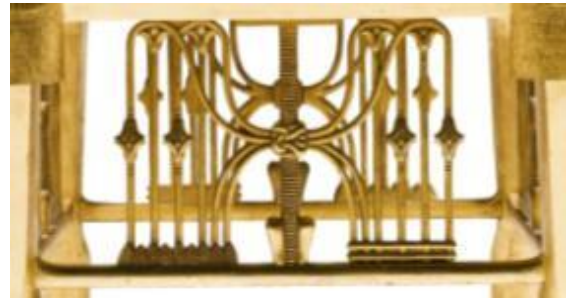


Figure no. (13) sign, (Smatwy) that means "Unification of the two lands" the north and the south



Figure no. (14) Wooden footstool, on which symbolic images are curved, representing Egypt's enemies, and The visualized birds (Rkett), refer to the public crowds

(3.2) The Throne's Side view:

The side view consists of two parts. The upper part comprises armrest. The lower part comprises legs and connector.

- The upper part consists of armrest, which is a combination. Looking at the same for a while, it takes the form of winged serpent. The serpent mouth moves in front of the chair. Looking at the same again, you will discover that it takes the form of winged eagle. The mouth thereof moves behind the chair. The winged serpent is a symbol for the kingdom of the north (red crown) or Lower Egypt, whereas there is the Delta and swamps, and papyrus grows. figure no. (15) (16).

The eagle is a symbol for the kingdom of south (white crown) or Upper Egypt, whereas lotus grows. In both cases, the head of serpent or eagle wears the king's crown, which symbolizes the Upper Egypt and Lower Egypt. Figure no (17).

Between the eagle's wings, there are three symbols, which are cartouche as a symbol

for the birth of king from the bottom to the top "Neb Khbro Ra", then (Alnsot Betty) that combines the bee as a symbol for the kingdom of north or Lower Egypt (north), and sot plant or logs as a symbol for the kingdom of south or Upper Egypt. The three symbols assure that the king ruled the kingdom of the south and north. Next to the armrest from the front, there is the lion head for protecting and defending against evil powers. Behind the armrest, there is serpent having crown on the head for defending the king against forces of evil. figure No (18).

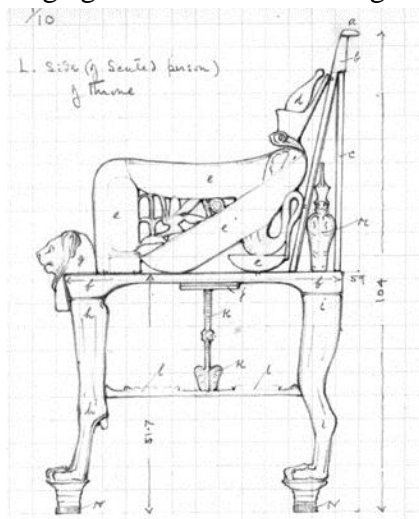


figure no (15) The Throne's Side view drawing by Dr. Howard Carter



Figure no (16) armrest, takes the form of winged serpent and winged eagle for Protection



Figure no (17) winged serpent and winged eagle that means "Unification of the two lands" north and south



figure no (18) Cartouche, bee and woven that confirm that King governs The land of Egypt, the upper and lower.

(3.3) The Throne's Rear view:

The rear view comprises upper part, consisting of decorative line of lotus and papyrus reciprocally. At the bottom of the strip, there is prominent configuration of lotus and papyrus's legs mutually, surrounded by the water birds. The upper part is divided into three subdivisions. On each subdivision, there are cartridges, carrying the king's royal title. figure no (19)

It begins from the top In the first standing and the third as follows:

- - **The name of Horus** (Wahankh). with permanent life (eternal)
- - **The name of coronation** or throne (Nswt Bity). the king of Upper and Lower Egypt, Sot or log plant, the symbol of kingdom of the south, and the bee, the symbol of kingdom of the north, and inside the Cartouche.
- - **The name of king** (Neb Khbro Ra). the Master of Ra persons.
- - **The personal name** (Sa Ra). the son of Ra.
- - **Tut Ankh Aton**. the living appearance for (Aton) the ruler of the south.

In the second standing "the midmost", the personal name is replaced by the name of golden Horus, for defending against serpent holding the sun disk, the symbol of God Ra. It is the king's fiery eye that destroys the enemies in the lifetime, and destroys at the same time the other world's serpents attacking and threatening the king in the

other life. Astronomers have recently revealed that the universe passes stretches, followed by retraction like the movement of exhalation and inhalation when man breathes. Such movement is the result of interaction between two main universes, namely electricity versus magnetism & gravity versus proliferation and expansion figure no (20)-(21)



figure no (19) The Throne's Rear view the formation expresses of the land of Egypt through lotus and papyrus with security codes for the names of the four King through four of serpent carrying the sun disk.

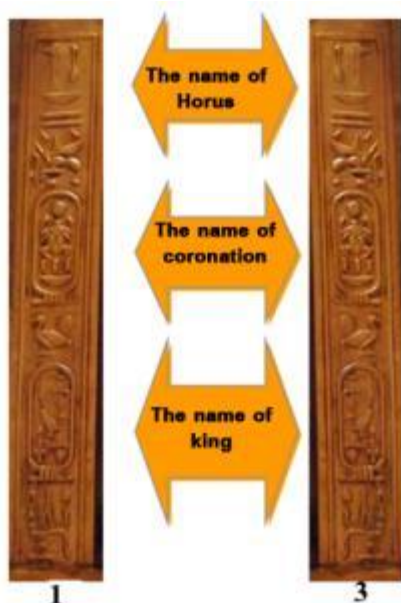


figure no (20) the names of the King In the first and the third standing



figure no (21) the names of the King In the second standing

(3.4) The Throne's plan

horizontal area occupied by the throne in the interior design, and the depth of the throne from the inside while the 59 cm depth as well as a tendency to back 46.6 cm and width 53, figure no (22)-(23)

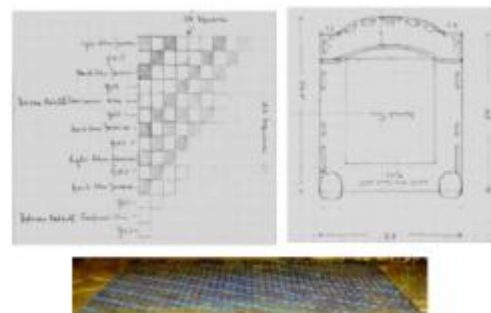


figure no (22) inlaid small squares of gold and light, bold blue faience addition to transparent calcite stacked to form a whole like a fabric.

Analyzing the throne's five views, it shall be evident that the chair holds the Egyptian environment's elements whether natural, Organic or established environment through the Egyptian thinking. Therefore, such chair is a reflection to the land of Egypt in an integrated manner or mirror for the land of Egypt. The intellectual wealth that features the throne of King Tutankhamon, is originally affected by such environmental system. Such system holds clear

environmental determinants. Relying on such environmental system, upon designing furniture, significantly ensures furniture implying intellectual richness and variety, besides cultural interaction/ exchange with the surrounding environment. Figure no (23)



figure, (23) Throne components Extracted from land of Egypt, that is formulated by Egyptian thought

The Results:

1. The ancient Egyptian thought is based on communicating with the surrounding environment, mimicking the environment and based, like it, on renewal and continuity. Hence, the ancient Egyptian embodies the surrounding environment as way to express all achievements as follows:
 - The faith for the ancient Egyptian, representing in the system of Gods, is deemed significant source to express and reflect various environments in Egypt, such as: the natural, organic and established industrial environment. Therefore, such faith is a mirror reflecting the environmental system on the land of Egypt.
 - The ancient Egyptian language is another significant source for the environmental system on the land of Egypt using signs from various environments in Egypt such

as the natural, organic and established environment.

- The system of building/ constructing, for the ancient Egyptian, is another source for the environmental system on the land of Egypt, but also the land of Egypt, including natural, organic and established environments. Such fact appears in the building of pyramids, temples, tombs and etc.
2. The furniture for the ancient Egyptian, is deemed direct reflection for the ancient Egyptian thought in embodying the environment on the land of Egypt meticulously and in an integrated manner as follows:
 - Using raw materials from the natural and organic environment
 - Innovating fabricated materials and tools for manufacturing furniture of the same previous environments.
 - Innovating/ creating trappings of the natural and organic environment, besides decorations and linguistic texts with symbols having connotations that express the life on the land of Egypt, the social, cultural, ideological, economic and political reality among members of society or between the ancient Egyptian and outsiders.
 3. The throne of King TutAnkhAmon is deemed direct reflection for the surrounding environment through the Egyptian thought. Some pieces of furniture include raw materials from the natural environment, organic and established environment. The throne of King Tutankhamun combines all natural, organic and established environments. Such throne is deemed direct and integral reflection for the land of Egypt or a mirror for the land of Egypt. Such matter is clear in the chair's five falls.

4. The throne is not only reflection for the land of Egypt, but the Egyptian land itself. In the five falls, the throne includes codes and symbols for being protected against apparent enemies, namely the nine bows, and also for being protected against the hidden forces of evil in general. The throne also includes codes/ symbols reflecting the unity of Egypt.
5. The environmental system achieved/ estimated through analyzing the throne that can be relied on, upon designing furniture. Such matter greatly ensures furniture indicating variety, intellectual richness as well as cultural interaction/ exchange with the surrounding environment.

The Discussion of Results:

- The Egyptian Thought is featured with mimicry through express embodiment of the surrounding environment as well as the beyond invisible worlds, and settling the same in specific and visual frame/ scope, gathering/ including all traits expressing such powers like physical embodiment of thoughts, faith, Gods, even the language with natural environment's symbols such as mountains, sky, rivers, sun, moon, stars and organic environment like animal and plant life, besides symbols for the established environment such as buildings, tools and others. Such description is meticulously and strongly expressed in the Egyptian furniture in general and the throne of King Tutankamun in particular, in the chair's five falls. Therefore, the throne of King Tutankhamun visualizes the land of Egypt **as follows:**

- The expression of notion of God Aton the sun disk mimicking natural environment as in figure no. (1) Embodying the king himself from the organic environment, wearing compound crown as in figure no.

- (2) Embodying the notion of social marriage between the king and the queen (the royal couple) through exchanging pairs of shoes from the established environment as in figure no. (3) Employing language to express the name of king as in figure no. (4) Expressing the kingdom of north by the lotus from the plant organic environment as in figure no. (6) Expressing the kingdom of south by the bee from the animal organic environment. Expressing the deter of evil by the serpent holding sun disk from the animal organic environment as in figure no. (8).

- The throne's five viwes assure the renewable protection of the Egyptian land and the king on the throne, besides the unity of the land of Egypt via a number of environmental symbols.



- Security codes:** represented in lion for protecting the land of Egypt and the king, the winged eagle and winged serpent for protecting the king from both sides, the sacred serpent for protecting from the behind, all from the animal organic environment. figure no. (9)



figure no. (9) Security codes winged eagle, winged serpent and lions

Unity Codes: gathering in all the throne's falls between the Upper Egypt's symbols (the kingdom of south) and the Lower Egypt's symbols (the kingdom of north), Representing in (Smatwy) celestial code, connecting between the lotus and papyrus with a link at the midmost of the windpipe, as if human life represented in the unity of land of Egypt as indicated in figure no. (3) (1) (4) Combining the eagle and winged serpent, whereas the eagle is a symbol for the kingdom of the south (white crown), and the winged serpent is deemed a symbol for the kingdom of the north (red crown). The compound crown is put on the serpent and eagle's head as in figure no. (2).



Conclusion:

- The ancient Egyptian furniture was reflection to the Egyptian environment expressly, since it includes a number of universe symbols indicating continuity and renewability, besides human symbols, represented in the religious, social, economic and political life.
- The throne is featured with intellectual richness and the communication with the surrounding environment through environmental system holding environmental indicators. Relying on such indicators, upon designing furniture, we can get pieces of furniture featured with intellectual richness and interaction with the surrounding environment.



Recommendations:

- The Researchers recommends the following:
- Expanding in the use of environmental system reached by the researcher in analyzing heritage pieces of furniture, particularly furniture for the ancient Egyptian, besides interior design elements.
 - Analyzing the elements of environmental system; in order to detect further environmental determinants/ indicators governing and useful in the contemporary design.
 - Applying the environmental system in the course of environmental design, to include both analysis and design. Analyzing what has been designed, governing the extent of intellectual richness thereof, interacting with the surrounding environment or the contemporary design to grant the product further intellectual richness and communication with the surrounding environment.

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