ANCIENT EGYPTIAN FURNITURE IN THE LIGHT OF THE CHARACTERISTICS THAT LED TO ITS PRESERVATION TILL NOW

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Abstract
Woodcrafts have been known since the pre-dynastic era. Wooden furniture has been depicted on tombs since the Old Kingdom, but surviving examples of them before the modern state are rare. Where the religious belief and belief in the resurrection dictated that Egyptians provide for their afterlife in the way they used to do in their religions, so their graves were deposited with supplies and equipment, and with the pictures and drawings spread on their walls, representing all matters of their lives. Egyptian furniture reached a high level of luxury, which no people could attain in that ancient time, and if the furniture is like a mirror, it reflects the personality of any people and the degree of its civilization, and then the ancient Egyptian furniture truly reflects the Egyptian environment and its civilization. In addition, if the carpentry, since the pre-dynastic period, was dry and devoid of integrity in its refinement, but the skill of the maker and his knowledge of the properties of the material enabled him to treat this industry and this formation properly.

Keywords
Ancient Egyptian, Furniture, Preservation, Civilization, Drawings.

Introduction
The ancient Egyptian furniture is distinguished by its simplicity and fulfillment of its purpose, and then by its beauty and accuracy of its decoration and despite this, it is sturdy and meticulously made, as the legs and legs are documented with opposing pieces, and the panels are supported from the back by wooden beams to strengthen them. All this indicates the skill and understanding of the carpenter and the technical skill he reached that brought his industry to a level not reached by the furniture industry in any other country.

The ancient Egyptian produced all kinds of furniture, whether it was prepared for daily or funeral use. The most important pieces of furniture are the seats, beds, cabinets, and mounts, in addition to the art of gold smiting, inlays with “ivory and ebony”, “precious stones”, dressing with “faience and glass,” laminating with “gold”, engraving, embossing, sculpture and photography, and weaving of fabrics and leather And upholstery fibers.

And if the interior design and furniture are in fact a mirror of peoples’ civilizations, and a reflection of the progress and development they have reached, and for this there has always been the need to know the materials and elements of interior design, furniture and units that may make up ancient Egyptian art, and to know their technologies, which differed according to their different primary materials Wood, ivory, gold, silver … etc.

Since the Egyptians turned to adobe in building their dwellings, wood has played a major role in this field, as local wood was used in the formation of several important architectural elements in the dwellings. Houses were roofed with palm groves and wooden columns were used to hold the ceilings, and doors and windows were often made of wood. It was used in wall and floor cladding in palaces, as indicated by funerary architecture in the ancient era, and the Egyptian manufacturer provided residential architecture with other wooden elements, such as: ornate booths erected in gardens and courtyards of palaces and the large role, in addition to the role he played

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in making furniture Wood in the dwellings.

The Egyptians have handled the wood industry since the dawn of history, and they did not have any of its types at that time, other than what trees grew in this valley, as Egypt's richness of stones and mineral wealth was matched by a poverty of wood. It did not have large trees that could be used to cut good wooden boards with suitable sizes, and few local trees were suitable for carpentry and furniture making and small boats, such as acacia, gem, dum, and the like. As for the palm, it was not suitable for that, but it was used whole or split in the work of the bishop, so the timber trade was known in Egypt since the dawn of history, so he got ebony from the Sudan of the valley, and he got cedar, pine, cypress, oak, oak and juniper from Syria and Phenicia.

The ancient Egyptian distinguished between the types of wood, and each type of wood was used in a different type of woodwork, and even in furniture, he did not use a single type of wood, but a type between hard, soft, imported and local, dark and light. About awareness and understanding of the nature of the material and its implications.

Sycamore trees were used in ancient Egypt in the manufacture of some furniture and in the manufacture of boats without construction work, because they do not give suitable panels in their lengths.

However, those colors of the trees were not good, so the maker had to extract large panels from them, which forced him to reach each other by the propeller.

And if we were witnessing to the Egyptian carpenter with the superior skill that enabled him to produce and intonation with the roughness of the material and its lack of integrity, and for that the Egyptian carpenter kept practicing his manufacture from Egyptian wood and did his best in treating its defects with paint and paint in order to intonate. Since the time of the Third Dynasty, it has been based on something like the process of extracting what is today called plywood. The sign of this is that he deliberately synthesized six thin layers of wood, each of which is no more than six millimeters thick, "a wooden coffin from the third family".

Research Problem

If the furniture industry is a mirror that reflects the civilization of peoples throughout the ages, and it is a reflection of the spirit of this era, and the evaluation of civilizations through the pieces of furniture that they left for the ages that follow, and it becomes the best witness to the extent to which man has succeeded in carrying out his mission and reconstructing his environment, which necessitates studying and containing what values and heritage elements, and what is happening now in the field of international furniture is a shift in the general thought as a whole, as the era in which we live has undoubtedly become the era of advanced technology that depends on the information revolution, and this image was reflected in the interior design and furniture and imposed itself and the idea of smart systems and smart furniture appeared as a response to automatic actuation of manufactured furniture parts according to scientific and technological developments. The study here goes back to that we quote from their works, and benefit for our present from their past.

Theoretical Framework

How did the ancient Egyptian manufacturer and artist test the type of wood used in the manufacture of furniture affected its preservation?

The Wood Used By the Egyptian Carpenter

Foreign Wood

The Egyptian carpenter used imported wood in a lot of funerary and royal furniture, and in musical instruments, as well as in inlining royal furniture. Wood (except for ebony) was brought from Assyria, the
Kingdom of the Hittites, Lebanon, Mesopotamia, and Punt, all of which are located in West Asia except for Punt, which includes the imported wood from ebony and some sweet and smelling wood.

Although a large number of different types of wood imported from abroad have been mentioned in ancient Egyptian texts, only a relatively small number have been translated from these names, oak, boxwood, cedar, cedar, cypress, ebony, ash, hornem, and pine. Juniper wood, mountainside wood.

**Egyptian Wood**

Trees are often depicted on the walls of tombs and temples, and the most important trees that grew in Egypt in the Dynastic Era and their wood were used for carpentry were: acacia, gem and oleores, although the wood of other trees, especially date palms, dum palms, buckthorn, fennel and willow were also used in some cases.

Many tools and things were made from the various local woods that used to grow in the Nile Valley and the Delta, and the Egyptian carpenters chose palm wood and dom palm to make the wooden ceilings, and the koi and the dowel in the furniture. As for the coffins, they were of acacia, and the wood of fig tree was used in the manufacture of furniture from tables and beds, acacia wood, arabian date palm wood, carob wood, sycamore wood, dum palm wood, willow wood, ficus wood, buckthorn wood and zinc wood.

**Methods of Connections and Structures Used In Ancient Egyptian Furniture**

The tools helped the carpenter to make very precise connections and joints, so he was able to make strong wooden boxes, coffins, and furniture. The wood was leveled in length and then joined well by coupling and hooks. Wooden and ivory dowels and copper and gold nails were used to fasten parts of the Chinese, ivory and other inlays materials. A piece of wood of six folds was found separated from a coffin found in the step pyramid of Djoser, and its folds were originally separated and then incorporated into the thrust, and they indicate the rapid development in the carpentry industry, and it has been proven that wood veneer was used in cladding in family furniture.

**Works and Means of Beautifying Furniture**

**Grafting**

It is the process of synthesizing the use of raw materials for utilitarian reasons; it is used for two reasons: Grafting some medium materials with some precious materials, to achieve a high value for furniture, through this method to impart aesthetic qualities. Using some local materials to reinforce the weak materials, to protect them from corrosion and resist friction factors.

In ancient Egypt, ivory grafting was done in various forms, some of which were in the form of straight strips or pieces in the form of triangles, squares or diamonds, and these pieces were devoid of any drawing or decoration. Inlays made of wood and ivory were found on a small wooden box from the first family, which was found in the cemetery of Hamaka in Saqqara, and wood inlays were found only on another box from the cemetery itself.

In the Old Kingdom, the inlays with ivory decreased due to their dependence on importing it, so they introduced other materials such as grafting with precious wood. An example is the furniture collection of the Queen "Hetepheres", "Family 4". Other materials were used, such as: seashells and quartz.

In the Middle Kingdom, vaccination with ivory was widespread, such as an inoculation of ebony and ivory on jewelry boxes discovered in "Lahoun" (the 12th family).

Among the wonderful examples important to the modern state is the grafting of antiquities found in the
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tomb of Tutankhamun, an inlay of ivory engraved on a box with images representing the king and the queen, and ivory and ebony inlay on a number of boxes. The coffins and boxes are inoculated with ivory, ebony, colored stones and ceramics.

Opaque stained glass is very common in the 18th Dynasty, for example the gilded wooden "Yuya" coffin that was buried in the tomb of Queen T, the throne chair and two chariots from the tomb of Tutankhamun.

The Peel

Veneer was commonly used in ancient Egypt, so slices of precious wood or other expensive materials were used to cover furniture surfaces made from less quality wood. The crust was not allowed to enter the heart like a graft.

It was also used in the construction and manufacture of the plywood for coffins and the six-layered wooden coffin, which was found in one of the corridors of the listed pyramid at Saqqara. It consists of six-layer wood, each layer with a thickness of about four millimeters, and the width of its pieces ranges between four and thirty centimeters, and their lengths vary, and these pieces were not wide or long enough for each height and length of the coffin, and to obtain the necessary dimensions.

And height, "the separate pieces were connected to each other by a wooden dowel, and the layers in which the fish were fixed were the other as well with fixing them with“ long wood "nails, and arranged so that the wood fibers were in alternating directions completely, as is the practice at the present time for the wood to gain durability And to prevent its twisting.

In the lower corners of the coffin, the edges of the outer five layers were beveled, while the other layer from the inside had square joints (the bowl in the chamber), and the lower corners were reinforced from the inside with pieces of wood.

The queen “Hetepheres” portable chair of the Fourth Dynasty was attached to the ebony veneer in the form of slides engraved with hieroglyphic writing.

In the twelfth family, the remains of a board inlaid with ebony veneer was found in a tomb in Balahun, belonging to a jewelry box. In addition, many crates during the New Kingdom had legs and edge panels covered with an ebony veneer.

The veneer is found in the furniture of "Yuya and Toyo" and the tomb of "Tutankhamun". It is thick in the furniture of the first tomb and fixed in place with small nails of wood, while it is thinner in the furniture of the second tomb and fixed with glue.

Paints and Their Importance in Preserving Ancient Egyptian Furniture until Now

Color in the furniture was considered an artistic and richness factor, whether in royal furniture or individuals. We find multiple applications for it in its aesthetic results that stem from the different ways of using color, and the place assigned to it in furniture pieces, sometimes it enters the color through paints or from the use of various materials of contrasting colors, such as color exchange in the use of ivory and teeth with ebony, or in the work of inlay with precious stones and faience. Colored, or making a color mixture between light and dark woods veneer, and most of the colors used were from the natural environment, the sense of environmental color was very clear in ancient Egypt, and it was expressed in strong degrees, or by the color mixing method with a distinctive character that provided us with impressive examples of the accurate choice of colors Studied at the highest level of compatibility, homogeneity and contrast.

The ancient Egyptians used in the decoration of furniture colors of clarity and clarity, such as red, bright
yellow, black, brown and blue in the Old Kingdom.

They also used dark red, turquoise blue, copper green, and sky blue, which continued in use until the Ptolemaic entered green instead of the heavenly.

Gilding was also of great importance in the manufacture of furniture, thrones, and royal cars, so their arts were strengthened by the power of kings and weakened by their weakness.

**Characteristics and Qualities of Egyptian Furniture**

Wood crafts have been known since the pre-dynastic era. Wooden furniture was depicted on tombs since the Old Kingdom, but the surviving examples of them before the modern state are rare, as the religious belief and belief in the resurrection dictated that Egyptians provide for their afterlife in the way they used to do in their worlds, so their graves became with what was deposited with supplies and what was spread on its walls. From pictures and drawings, they represent all matters of their lives.

Egyptian furniture reached a high degree of luxury, which no people had reached in that ancient time, and if the furniture was like a mirror, it reflects the personality of any people and the degree of its civilization, then the ancient Egyptian furniture truly expresses the Egyptian environment and its civilization. If the carpentry, since the pre-dynastic period, was dry and devoid of integrity in its refinement, but the skill of the artisan and his knowledge of the properties of the material had enabled him to treat this industry and this formation properly.

The ancient Egyptian furniture is distinguished by its simplicity and fulfillment of its purpose, and then by its beauty and accuracy of its decoration and despite this, it is sturdy and meticulously made, as the legs and legs are documented with opposing pieces, and the panels are supported from the back by wooden beams to strengthen them. All this indicates the skill and understanding of the carpenter and the technical skill he reached that marked his industry to a level not reached by the furniture industry in any other country.

The ancient Egyptian produced all kinds of furniture, whether it was prepared for daily or funeral use. The most important pieces of furniture are the chairs, beds, cabinets, and mounts, in addition to what they have invented from the art of goldsmithing, inlays with “ivory and ebony”, “precious stones”, dressing with “faience and glass,” laminating with “gold”, engraving in relief, carving and photography, weaving of fabrics, leather and leather.

**The Stability of Non-Living Factors Such As: Humidity and Light (Ultraviolet Rays)**

The stability of moisture, heat and UV rays inside the tombs has the greatest effect on preserving furniture and woodwork from damage, and this is what the graves found in the modern state when they moved the graves in the mountain rocks in the Valley of the Kings behind the western plateaus, and in a barren, barren region.

Insects in wood can be killed at high temperatures 50-60 or 132-140 or above. This is what happens during drying.

**Research Results**

- Wood and how did the selection of the ancient Egyptian artist have the effect of preserving it until now?
- Methods of connections and structures used in the ancient Egyptian furniture industry.
- Furniture decoration and aesthetics, a- grafting, b- veneer, c- paints
- Living factors: weevils and white ants do not grow inside tombs due to the shorter dry environment, i.e. the constant moisture content of wood due to the constant relative humidity of the air inside the rock tombs in the mountains of the Valley of the Kings behind the western plateaus of Thebes, and in a barren, arid region.
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