Studying the furniture techniques applied in ancient Egyptian civilization and employing them to design contemporary furniture Assist. Dr. Naglaa Ezzat Ahmed Mahmoud

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An introduction:

The ancient Egyptian civilization is the oldest civilization and its history, the most stable, which gave the world the first steps of science, art and knowledge. It is an ideological civilization based on the doctrine of Baath and immortality. The ancient Egyptian art was the embodiment of this creed which formed the heart of all walks of life and it is an applied art primarily to serve worldly life and life after death as well. Furniture models have shown us the diversity and prosperity of the art and craft of the furniture industry.

The problem of research: How to exploit the development that took place in the techniques of carpentry in the ancient Egyptian as a heritage and the employment of the resulting from a variety of sophisticated and diverse furniture to obtain a product that achieves the Egyptian identity and meet the needs of the Egyptian consumer in accordance with the current requirements of housing with a specific area.

The purpose of the research: The research aims to design contemporary furniture inspired by the technical development of furniture applicable in ancient Egyptian civilization to obtain a product that fits with the current requirements of the Egyptian housing with limited space and achieve the Egyptian identity.

Keywords: Ancient Egyptian Art - Egyptian Creed - Carpentry as Heritage - Folding Furniture

In order to achieve the objective of this study and revive this rich local heritage and to benefit from it and exploited to impose the Egyptian identity on the product of modern local furniture was discussed in three axes:

The first axis: study the ancient Egyptian art and follow the evolution of the carpentry in structures and workshops.

The Second axis: Track the historical evolution of the applicable pieces of furniture with an analysis of the method of application.

The third axis: An applied project in which contemporary furniture is designed, inspired by the technical development of the furniture applicable to achieve the Egyptian identity, which suits the current requirements of the Egyptian housing with limited space.

The first axis: Ancient Egyptian art:

Ancient Egyptian Art and Creed:

Ancient Egyptian art is an art linked to the faith that is shaped by the customs of the people and varies in place to convey messages through generations and ages that lasted for thousands of years. The ancient Egyptian considered that his art is a link between the generations of

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living and dead people that unite them in the post-Baathist life and eternity which is the basis of the Egyptian creed. Thus, art came as an expression of the creed, so that the most important feature of ancient Egyptian art is immortality, which is evident in all kinds of arts, especially architecture and furniture.

Carpentry as a heritage art:

The carpentry and furniture industry was one of the most important crafts in the ancient Egyptian civilization where carpenter was interested in craft and developed it. The art of furniture carpentry went through different stages of development as it was connected with other arts such as sculpture and grazing ... and other woodworking tools played an important role in The formation of different parts of wood and furniture and so that he can produce the pieces of precision and beauty in and to benefit from this development was to be the work of analytical study to follow that development in two axes:

First: woodworking tools:

The old Egyptian carpenter invented a large number of tools, which are still used so far and they developed them on many levels, which we review the following table:

The result of analyzing the evolution of some woodworking tools				
Quality of	development Examples			
development				
Materials	According to what he discovered new raw	The scalpel - the		
	materials such as the iron ore in the modern	knife of the flag -		
	state. All the metal blades of the tools were	the bolt		
	made of iron in addition to bronze and copper			
Shape and	The size or size of some of the tools gradually	Drills with a variety		
size	increased to suit the quality of the furniture	- chisel - saw		
	and the quality of its materials			
Style of use	Mechanization has become advanced as a	Drill with saws -		
	result of the importation of imported wood or	saw		
	grafting materials			

The old Egyptian used the creative logical thinking method to produce the art of furniture adapted to the local environment through the use of a large number of designs and industrial structures that transformed the carpentry from a mere craft to art and industry to achieve the principles of sustainability in the furniture industry by dividing the furniture into small pieces Assembled by different structures to form a cohesive unit and, if any damage occurs, can be regrouped again.

Second: workshop coefficient:

The old Egyptian carpentry workshops are an example of the typical ideal workshop which should be followed by a distinguished level of work.

Accuracy in classification and interest in applied arts, especially the art of furniture, Management oriented organization based on the quality of the product, class or target class, Activity and skill of workers and the system among them (painters - technical follow - up workers - supervisors - security)

And Employ all potentials, raw materials and energies to obtain a good product.

The second axis: tracking the historical development of the applicable furniture:

The furniture in ancient Egypt is one of the most progressive and prosperous arts and folding furniture is one of the most advanced furniture either from the formal, the functional or the executive side. This type of furniture was used either for trips, camping or in wars.

Type of furniture	Extension type	User mode	Technology used	Examples
beds	Horizontal extension	Method of applicability of a Z-shaped fan	Bronze hinges (four) + removable legs (4(King Tutankhamun's bed
Chairs	Horizontal extension	The axial snap method is an X character	A bronze nail + two copper inserts as a cover for the nail	The seat of Kaa

The third axis: Applied Project:

This axis is an attempt to apply what the researcher was able to obtain from the results of the two previous research axes in order to find an Egyptian Pharaonic identity of the applicable Egyptian furniture, where the techniques derived from the furniture applied in ancient Egypt were used to make two models of contemporary furniture with Egyptian identity in terms of form, So as to accommodate the small size of the houses.

The first mode

Packed Cartridge The entire package is in the form of a small cupboard (unit assembled) that can be used on both sides

Philosophy of Design & Inspiration Combining
fixed furniture
(boxes) and
types of
furniture to
obtain a multifunction unit
with Egyptian
identity.

Use the jewel box of King Tutankham was used vertically instead of horizontal







Technologies Used Use the Z-bed technology in the work of a table for travel

Use X-axis seat technology to make a seat for travel





The scond model		Packed Cartridge The entire package is in the form of a small cupboard (unit assembled) that can be used on both sides		
Philosophy of Design & Inspiration	Is a bed that fits inside a box and with a two-compartment air, they are attached to the bed to reduce the space if the bed fits in the box	The vertical projection of the unit is closed The vertical projection of the unit is opened		
Technology Used	Use the Z-bed technology in the work of a table for travel	The side view of the unit is opened		

Search results:

- 1 Ancient Egyptian art is a sustainable art with special characteristics and central characteristics that provide a symbolic ideological message to the generations and is developed and interacting with the physical and moral environment of Egypt.
- 2- The old Egyptian carpenter was able to obtain an advanced product of furniture suitable for the environment due to the development of the tools and the methods of assembling the furniture units. The two types of furniture that are applicable in ancient Egypt were the Z-shaped wheelchair and the X-axis seat.
- 3 Utilizing the development of the formal, functional and technical drafting of the applicable furniture is a revival of the local heritage with an ancient Egyptian historical reference (Pharaonic) to achieve self-identity in Egyptian furniture suitable for the current housing environment.

Recommendations:

1 - Attempt to urge factories and furniture companies to achieve the Egyptian historical and cultural identity of the Egyptian product and derived from the old Egyptian furniture by adopting the application of the results of studies and research in the field of interior design and furniture.

2 - To urge more research and studies on the design of Egyptian furniture in the historical Mahti (not only in the Pharaonic era) to achieve the maximum benefit of the local Egyptian heritage

References:

- 1- T,G,Jaims, Translation D. Ahmed Zohair: "Life in the days of the Pharaohs" Egyptian General Book Organization Egypt 1997.
- 2- Harbi, Said : "Methods and Trends in Ancient Egyptian Art 3800 BC 332 BC" Egyptian General Book Organization Cairo Egypt 2014.
- 3- Husseen, Fatma Ahmed Mohamed: "Design Formulations of Symbols in the Ancient Egyptian Civilization and its Use in Interior Design and Furniture" The First International Conference of Specialized Palaces of Artistic and Literary Heritage Language of Communication between Peoples International Design Magazine Luxor Volume 8 Issue 1 Egypt 2018.
- 4- Hamad, Mohamed Rashed "Furniture Carpentry in Ancient Egypt" Supreme Council of Antiquities 57 Egypt 2005..
- 5- Hamad, Mohamed Rashed: "Carpentry works in ancient Egypt. Carpentry of furniture and architecture (paintings)" Supreme Council of Antiquities 63 Egypt 2012.
- 6- Abd El Gwad, Tawfeek Ahmed : "Architecture and Civilization of Pharaonic Egypt" Anglo Egyptian Library Egypt 1984.
- 7- Harcombe, Aletta Maria Pepler: "Ancient Egyptian Furniture in Context: From Ancient Production, Presevation to Modern-Day Reconstruction and Conservation" -Master Thesis Ancient Near Eastern Studies University of South Africa Feb. 2011.
- 8- Hassaan, Galal Ali: "Mechanical Engineering in Ancient Egypt, Part I: Furniture Industry" International Journal of Advancement in Engineering Technology, Management & Applied Science- Volume 3 Issue 1 January 2016.
- 9- Killen, Geoffrey: "Egyptian Woodworking and Furniture" Shire Publications LTD First Edition -1994.
- 10- http://earth-chronicles.com/histori/the-bed-of-tutankhamun-was-an-ancient-miracle.html
- 11- www.mehrezkrema.com