

Mechanical Engineering in Ancient Egypt, Part XXXII: Human Wooden Statues (New Kingdom and Late Period)

Galal Ali Hassaan

Emeritus Professor, Department of Mechanical design & Production,
Faculty of Engineering, Cairo University, Egypt
galalhassaan@ymail.com

Abstract— The evolution of mechanical engineering in ancient Egypt is investigated through the wooden statues industry during the 18th Dynasty and Late Period of ancient Egypt. Examples of wooden statues from the 18th, 19th and 20th Dynasties besides some examples from the Late Period are presented and analyzed. Materials, location and features are traced. The capability of ancient Egyptians in producing wooden statues with elaborated characteristics is highlighted.

Index Terms— Mechanical engineering in ancient Egypt, wooden statues industry, New Kingdom, Late Period.

I. INTRODUCTION

This is the 31st research paper in a series aiming at exploring the evolution of mechanical engineering in ancient Egypt through the different activities of their wonderful civilization. The ancient Egyptians used different materials for the production of their human statues such as wood, ivory, clay, pottery, faience, brass, bronze and stone. This paper concentrates only on wooden statues over the ancient history of Egypt from Predynastic to the 13th Dynasty of the Second Intermediate Period.

Dunham (1958) presented a series of lectures on the history of the Egyptian Department and the excavations in Egypt of the Harvard-Boston Expedition given in the Museum of Fine Arts of Boston. He presented some wooden statues from the 18th Dynasty [1]. Smith (1960) wrote a book about ancient Egypt as represented in the Museum of Fine Arts covering a time span from Predynastic to Late Periods. He presented sculpture figures from mud, clay, ivory and pottery from the Predynastic Period. He presented a wooden dwarf from the New Kingdom [2]. Harvey (1991/1992) reassessed a wooden statue in the Walters Art Gallery and assigned it to the Middle Kingdom instead of the New Kingdom. Her work was based on comparisons with similar statues in other collections [3]. Smythe (2008) presented a work published by the Egyptian Supreme Council of Antiques about 25 years of cooperation between Egyptians and Australians in the field of Egyptology. Among his coloured presentations was a painted wood statue for Ptah-Osiris with 330 mm length from the 26th Dynasty of the Late Period [4].

Harvey (2009) stated that wood was a widely used material for sculpture in ancient Egypt from the earliest times. She presented wooden statues for guardian statue from tomb of Pharaoh Tutankhamun of the 18th Dynasty, head of Queen Tiye from the 18th Dynasty and two statues for Isis and Nephthys from the Late Period [5]. El-Sherbiny (2015) in her M. Sc. Thesis established a dendrockronological record for ancient Egypt through the analysis of ancient Egyptian artefacts identifying the main types of wood resources with the highest dendrockronological potential for ancient Egypt Periods. Among the wooden artefacts she studied was the statue of Pharaoh Tutankhamun of the 18th Dynasty [6]. Hassaan (2016) in his investigation of men clothing in ancient Egypt during the New Kingdom and Late Period presented the wooden statue of architect Kha of the 18th Dynasty [7]. Hassaan (2016) investigated the evolution of the wooden statues industry during the time span from the Predynastic to the 13th Dynasty of ancient Egypt [8].

II. WOODEN STATUES IN THE 18TH DYNASTY

The 18th Dynasty of ancient Egypt is one of the most wealthy Dynasties in the ancient history of Egypt and covers a time span from 1570 to 1293 BC [9]. The evolution of the wooden statues industry during the 18th Dynasty is investigated through a number of examples presented as follows:

- The first example of wooden statues in the 18th Dynasty is for Lady Nay (1550-1295 BC) in display in Louvre Museum at Paris and shown in Fig.1 [10]. It is manufactured from gilded wood and shows the lady wearing a full Tunic, a decorated headdress and a wide pectoral on her chest. She is holding a bundle of flowers in her left hand as clear in the zoomed image.



Fig.1 Wooden statue of Ladi Nay from the 18th Dynasty [10].

- The second example is for Tuya (or Thuya), The Priestess and mother of Queen Tiye during the reign

of Pharaoh Amenhotep III (1391-1353 BC) in display in the Louvre Museum and shown in Fig.2 [11]. It is of the rectangular prism type design with too-many decorations. The sarcophagus takes the form of an ancient Egyptian shrine in three colors. It is of the same design school of that of Ladi Nay in Fig.1, except the headdress is much elaborated through its pattern and she is holding (may be) one of the ancient Egyptian symbols in her left hand as clear from the zoomed image in Fig.2.



Fig.2 Wooden statue of Tuya [11]

- The third example is a wooden statue for Lady Tuty from the 18th Dynasty (1390-1352 BC) in display in the Brooklyn Museum at NY and shown in Fig.3 [12]. It is manufactured from wood and gold leaf, showing the lady wearing a full tunic, elaborated headdress, perfume cone on her headdress, two gold discs decorating her headdress. She is not holding anything in her left hand set on her waist.



Fig.3 Statue of Lady Tuty from the 18th Dynasty [12].

- The fourth example is for the High Priest Amenhotep during the reign of Pharaoh Hatshepsut (1479-1458 BC) in display in the Pushkin Museum of Fine Arts at Moscow and shown in Fig.4 [13]. This is a wonderful design and wood carving showing the Priest with an image as if it is taken by a modern digital camera. He is wearing a Corselet with necked head with inscriptions on the front of

his dress.



Fig.4 Wooden statue of Priest Amenhotep [13].

- The fifth example is a wooden torso statue for Pharaoh Tutankhamun (1332-1322 BC) in display in the Field Museum of National History at Chicago and shown in Fig.5 [14]. The Pharaoh is shown wearing the blue crown while his body is necked. The length of the torso is 735 mm.



Fig.5 Wooden Torso of Tutankhamun [14].

- The last example of wooden statues in the 18th Dynasty is again for Pharaoh Tutankhamun in display in the Egyptian Museum at Cairo and shown in Fig.5 [15]. It is manufactured from gilded wood and shown the Pharaoh standing, wearing the Red Crown, holding a long stick in his left hand and a short square stick in his right hand.



Fig.6 Wooden statue of Tutankhamun [15].

III. WOODEN STATUES IN THE 19TH DYNASTY

The 19th Dynasty covers a time span from 1292 to 1187 BC [16]. The development of wooden statues during this dynasty is investigated through the following three examples:

- Fig.7 shows a wooden standing statue for Pharaoh Ramses I (1318 BC) in display in the British Museum [17]. It is manufactured from limestone, decorated by carved scenes for the Queen. The carver shows the Pharaoh wearing a short Schenti, Nemes and holding a stick in his left hand.



Fig.7 Wooden statue of Ramses I [17].

- The second example from the 19th Dynasty is for Neferrenpet, the Vizier and High Priest from the reign of Pharaohs Ramses II to Seti II in display in the Louvre Museum and shown in Fig.8 [18]. It shows the Vizier wearing a patterned Nemes and has wide eyes and thin nose. He seems looking far away to the future of Egypt.



Fig.8 Wooden statue of Vizier Neferrenpet [18].

- The third and last example of wooden statues in the 19th Dynasty of Egypt is for Khaemtore from Thebes (1255-1214 BC) in display in the RMO Museum at Leiden and shown in Fig.9 [19]. It is very similar to that of Neferrenpet in Fig.8 except he is holding a thick stick with a ram head at his left side.



Fig.9 Wooden statue of Khaemtore [19].

IV. WOODEN STATUES IN THE 20TH DYNASTY

The 20th Dynasty of ancient Egypt covers a time span from 1187-1064 BC [20]. We have two examples of wooden statues from the 20th Dynasty presented as follows:

- Fig.10 shows a wooden statue from the tomb of Pharaoh Ramses IX (1126-1108 BC) in display in the British Museum and shown in Fig.10 [21]. It shows the Pharaoh wearing a short Schenti and a Nemes headdress.



Fig.10 Wooden statue from the tomb of Ramses IX [21].

- The second and last example of wooden statues in the 20th Dynasty is for Osiris in the form of a standing man from Thebes (1170 BC) in display in the British Museum and shown in Fig.11 [22]. The carver shows Osiris wearing the White Crown of Egypt, full sleeved dress, pectoral and holding his two hands.



Fig.11 Wooden Osiris statue from the 20th Dynasty [22].

V. WOODEN STATUES IN THE LATE PERIOD

The Late Period includes from the 26th to the 31st Dynasties of ancient Egypt over a time span from 664 to 332 BC [23]. The wooden statues industry during this period is investigated through three examples from the Period 664 to 332 BC:

- The first example is a wooden statue known as Ka statue from the 26th Dynasty (664-525 BC) from the collection of Vicomtesse Dalton, displayed by the Virtual Egyptian Museum and shown in Fig.12 [24]. It shows a man in the shape of a mummy with his hands under his fully covering cloth, wearing a long Nemes headdress, long thin beard and his dress is fully decorated.



Fig.12 Ka wooden statue from the 26th Dynasty [24].

- The second example is a Ptah-Seter-Osiris statue from the Late Period (664-342 BC) manufactured from stuccoed, painted wood and gilded face from the collection of Bruno Wectz and shown in Fig.13 [25]. It has a design similar to that in Fig.12 except the decorations of the dress are completely different.



Fig.13 Ptah-Seter-Osiris statue from the Late Period [25].

- The third and last example of wooden statues in the Late Period of ancient Egypt belongs to a female harpist (664-332 BC) in display in the British Museum and shown in Fig.14 [26]. This is a wonderful piece representing the top technology in wood carving in ancient Egypt because of its difficult details. The harpist is wearing a modified Tunic, Khat headdress, playing on the harp using both hands. The beauty of the woman is one of the features of the statue.



Fig.14 Wooden statue of a harpist from the Late Period [26].

VI. CONCLUSION

- The evolution of mechanical engineering in ancient Egypt was investigated through the study of the wooden statues industry during the New Kingdom and Late Period of ancient Egypt.
- Wooden statues for full-dressed ladies were carved during the 18th Dynasty with elaborated headdress and continued up to the 26th Dynasty of the Late Period.
- They designed wooden statues for men with Khat, Red Crown and Nemes through the New Kingdom.
- They produced men statues with Schenti, Corset and full-dress during the New Kingdom.
- Elaborated wooden statues designs appeared during the Late Period of ancient Egypt.
- Statues with naked head continued to appear in the 18th Dynasty.
- The ancient Egyptians produced wooden statues for some of their Gods during the 20th Dynasty and Late Period.
- They produced wooden statues with elaborated decorations during the 18th Dynasty, 20th Dynasty and Late Period.

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BIOGRAPHY



Galal Ali Hassaan:

- Emeritus Professor of System Dynamics and Automatic Control.
- Has got his B.Sc. and M.Sc. from Cairo University in 1970 and 1974.
- Has got his Ph.D. in 1979 from Bradford University, UK under the supervision of Late Prof. John Parnaby.
- Now with the Faculty of Engineering, Cairo University, EGYPT.
- Research on Automatic Control, Mechanical Vibrations, Mechanism Synthesis and History of Mechanical Engineering.
- Published more than 200 research papers in international journals and conferences.
- Author of books on Experimental Systems Control, Experimental Vibrations and Evolution of Mechanical Engineering.
- Chief Justice of the International Journal of Computer Techniques.
- Member of the Editorial Board of a number of International Journals including IJARMATE.
- Reviewer in some international journals.
- Scholars interested in the author's publications can visit:

<http://scholar.cu.edu.eg/galal>