Mechanical Engineering in Ancient Egypt, Part XXI: Men-Clothing (New Kingdom to Late Period)

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Abstract:
The paper investigates the development of the men-clothing industry in Ancient Egypt during the periods from the New Kingdom to the Late Period. The paper presents samples of men-clothing during those periods and tries to analyze each sample showing its characteristics and location if known. The design of each dress is outlined and the decoration (if any) is investigated. The development aspects of the men-clothing industry is investigated highlighting the innovations of the designs and their manufacturing with respect to those in the previous periods.

Keywords — Mechanical engineering history, Ancient Egypt, men-clothing, New Kingdom to Late Period.

I. INTRODUCTION
Dressing is a characteristic of civilized nations. Egypt is one of those nations who developed textile industries for the welfare and daily life of their people. We have traced men-clothing in ancient Egypt in the 20th part of this research papers series during the time span from the Early Dynastic to the Middle Kingdom, and now we are completing this study from the time span from the New Kingdom to the Late Period of ancient Egypt History.

Smith (1960) studied the history and art in ancient Egypt in eras including the New Kingdom and Late Period through the collections of the Museum of Fine Arts at Boston. His work revealed information about men-clothing in those periods [1]. Newman (1997) presented a social archaeological analysis for the tomb builders of Deir el-Medina. He presented a number of plates from the Tomb of Ramose at Thebes, Tomb of Senmedjem at Thebes, Tomb of sculptor Ipy, scene for the foreman Anherkhau from the 19th Dynasty, Tomb of Anhurkhawi from the 19-20th Dynasties, Tomb of Neferompet, Tombs of Vizier Rakhmire, Menna, Rekhmara and Nebamun of the 18th Dynasty. Lot of information is available about men-clothing through the figures he presented [2]. Hilliard (2006) studied the visual representations of Pharaoh Hatshepsut of the 18th Dynasty and her influence on images of Queen Nefertiti. Her work did not present any figures that one can extract information about dressing in the 18th Dynasty [3].

Laboury (2010) tried to answer a question about how and why did Pharaoh Hatshepsut invent the image of her royal power. Doing this, he presented a lot of illustrations from her era that a researcher can extract a good data about dressing during her time [4]. Veldmeijer (2014) studied footwear in ancient Egypt through samples from collections around the world, tomb and temple walls depictions and written records. The sample scenes and models he presented carried information about men-dressing in ancient Egypt [5]. Gomez (2015) studied in her Ph.D. program the personnel of Khonsu during the Third Intermediate Period at Thebes. The scenes presented from this period carried some information about men-clothing during the 3rd Intermediate Period [6].

Hassaan (2016) studied the men-clothing in ancient Egypt during the time span from the Early Dynastic to the Middle Kingdom. He documented the men-clothing through all available sources such as statues, tombs scenes and findings, temples scenes and physical models [7].
II. NEW KINGDOM

The New Kingdom comprised the 18th, 19th and 20th Dynasties of ancient Egypt and extended over a time span from 1570 to 1069 BC [8]. This is the most powerful, wealthy and stabilized era in the ancient Egyptian history. We expect to see a remarkable evolution in the design and manufacturing of men's clothing in this period.

The 18th Dynasty:

- The first example of men dressing in the 18th Dynasty is for Pharaoh Hatshepsut, the 5th Pharaoh of this wealthy dynasty. Even Hatshepsut was a lady ruler, but she was a real strong Pharaoh even in her appearance wearing men clothing. Fig.1 shows a setting statue for Hatshepsut displayed in the Metropolitan Museum of Art of NY [9]. She's wearing an extremely short Schenti with front tail.

Fig.1 Pharaoh Hatshepsut of the 18th Dynasty [9].

- The 2nd example is for Pharaoh Thutmose III, the 6th Pharaoh of the 18th Dynasty through his twin statue with his mother as displayed in the Egyptian Museum at Cairo and shown in Fig.2 [10]. The Pharaoh is wearing a short Schenti with a short front tail.

Fig.2 Pharaoh Thutmose III [10].

- A 3rd example is for Pharaoh IV, the 8th Pharaoh of the 18th Dynasty displayed in the Egyptian Museum of Cairo and shown in Fig.3 [11]. He's wearing a short Schenti with front tail. The Schenti is decorated through a lined-pattern linen.

Fig.3 Pharaoh Thutmose IV with his mother [11].

- The 4th example belongs to Pharaoh Amenhotep III, the 9th Pharaoh of the 18th
Dynasty. The Pharaoh is standing in the Luxor Museum of Egypt as shown in Fig.4 [12]. He’s wearing a short Schenti secured in position using a decorated belt. The Schenti is decorated by motifs in the form of inclined lines and some symbols near its bottom end.

- The 5th example refers to Pharaoh Akhenaten, the 10th Pharaoh of the 18th Dynasty. The Pharaoh is standing with his wife Nefertiti in the Louvre Museum of Paris as shown in Fig.5 [13]. The Pharaoh is wearing a medium Schenti with a Hido eight number from the front. His Schenti is decorated by inclined lines as a linen texture.

- The 6th example of men-clothing in the 18th Dynasty belongs to the young Pharaoh Tutankhamun, the 13th Pharaoh standing in the Egyptian Museum of Cairo as shown in Fig.6 [14]. The Pharaoh is wearing a medium yellow Schenti of a small belt and a trapezoidal tail.

- Pharaoh Tutankhamun appeared also wearing a short Schenti with small front tail as depicted in his statue shown in Fig.7 [15].

- The 8th example from the 18th Dynasty belongs to Pharaoh Horemheb, the 15th and last Pharaoh as a scene in the Rock Temple at Gebel Adda as shown in Fig.8 [16]. Horemheb is wearing a medium Schenti with belt.
Fig. 7 Tutankhamun wearing a short Schenti [15].

Fig. 8 Horemheb wearing a medium Schenti [16].

- Now, we move to the rank after Pharaohs which are the Nobles. The 1st example is depicted from a scene from the Tomb of Nebamun, a scribe and grain accountant during the 18th Dynasty. It is a hunting scene for Nebamun with his family in a hunting trip in the River Nile as shown in Fig. 9 [17]. He's wearing a medium Schenti with a belt.

Fig. 9 Noble Nebamun in a hunting scene [17].

- The 2nd example from the Nobles life is for Sennefer, the Mayor of Thebes during the reign of Pharaoh Amenhotep II displayed in his Tomb at the West Bank of Thebes and shown in Fig. 10 [18]. Sennefer is wearing a half-sleeve full-dress down to his feet with twin collars at the end of each sleeve. His full dress may be two-parts type: a T-shirt and a long Schenti. The artist succeeded to draw Sennefer as a strong personnel with his wife setting beside his chair and looking at the future of Egypt and to his people.

Fig. 10 Noble Sennefer, Mayor of Thebes [18].

- The 3rd example is depicted from the statue of the Architecture Engineer Kha displayed in
the Egyptian Museum at Turin of Italy and shown in Fig.10 [19]. Engineer Kha is wearing a half-sleeve full-dress down to his knee with motifs on his chest.

![Fig.10 Wood statue of engineer Kha [19].](image1)

- The last example of men-clothing in the 18th Dynasty is from Userhat Tomb (Overseer of the Fields of Amun). It is a scene for hair-cutting of army recruits in open air as shown in Fig.11 [20]. The soldiers are sitting on chairs waiting their turn while two barbers are busy in work. All of them are wearing the medium Schenti and enjoying being in open-air in a garden with trees.

![Fig.11 Scene of hair-cutting [20].](image2)

- The 2nd example is also due to Pharaoh Ramses II through his Statue displayed in the Egyptian Museum at Turin and shown in Fig.13 (a) [22]. The Pharaoh is wearing a full dress down to his feet. The Dress motives is zoomed In Fig.13 (b).

![Fig.12 Statue of Pharaoh Ramses II [21].](image3)

The 19th Dynasty:
- The 1st example of men-clothing in the 19th Dynasty of the New Kingdom is depicted from a statue for the Great Pharaoh Ramses II, the 3rd Pharaoh of the 19th Dynasty displayed in the Metropolitan Museum of Art and shown in Fig.12 [21]. The Pharaoh is wearing a medium Schenti with belt and the linen texture is decorated by motifs of different designs.

![Fig.13 Statue of Pharaoh Ramses II at Turin [22].](image4)

- The 3rd example is depicted from a scene for Pharaoh Marenptah, the 4th Pharaoh of the 19th Dynasty as shown in Fig.14 [23]. He's
wearing a full dress consisting of a number of pieces including a half-sleeves shirt, Long Schenti, belt and a sash.

Fig.14 Scene of Pharaoh Marenptah [23].

- The last example of men-clothing in the 19th Dynasty is from the stela of Aapehty, the deputy of the gang displayed in the British Museum and shown in Fig.15 [24]. Aapehty is wearing a long Schenti with belt.

Fig.15 Stela of Aapehty [24].

- The 1st example from the 20th Dynasty of the New Kingdom belongs to Ramses III, the 2nd Pharaoh through his scene in the 41 m length papyrus (Great Harris Papyrus) displayed in the British Museum and shown in Fig.16 [25]. The Pharaoh is wearing a coloured-short Kalasiris just above his knees.

Fig.16 Ramses III in ancient Egyptian papyrus [25].

- The 2nd example is also for Pharaoh Ramses III from a coloured-wall scene in at the entrance of his temple at Medinet Habu as shown in Fig.17 [26]. The Pharaoh is playing a game with one of his wives while she is smelling him a perfumed plant. The Pharaoh is wearing a medium Schenti.

Fig.17 Ramses III with one of his wives [26].

- The 3rd example is also for Pharaoh Ramses III from a coloured scene shown in Fig.18 [27]. The Pharaoh is wearing a coloured Schenti with belt and a half-sleeved-transparent Robe covering the whole body down to the feet.
III. THIRD INTERMEDIATE AND LATE PERIODS

The 3rd Intermediate Period covers the 21st through the 25th Dynasties over the time span 1070 – 664 BC [28]. The Late period covers the Dynasties from 26 to 31 over the time span 672 – 332 BC [29]. Some of the men-clothing examples and their features during those periods are as follows:

- The 1st example of men-clothing in the 3rd Intermediate Period is for the High Priest of Amun Pinedjem I during the 21st Dynasty through his statue displayed in the Egyptian Museum at Cairo and shown in Fig.19 [30]. Priest Pinedjem is wearing a short Schenti with front short tail.

- The 2nd example in this period is for the High Priest of Amun Herihor during the 21st Dynasty through his statue displayed in the Egyptian Museum at Cairo and shown in Fig.20 [31]. Herihor took the character of a scribe in his standard known setting in the ancient Egyptian history. He’s wearing a T-shirt and a medium Schenti.

- The 3rd example is from the 22nd Dynasty and belongs to Pharaoh Osorkon I, the 2nd Pharaoh of the 22nd Dynasty through his Bronze statue displayed in the Brooklyn Museum of USA and shown in Fig.21 [32]. The Pharaoh is wearing a Tunic in the top part of his body and a medium Schenti with belt and front tail in the bottom part.
- The 4\textsuperscript{th} example is depicted from a statue for the High Priest of Amun in the 22\textsuperscript{nd} Dynasty, Shoshenq, the son of Pharaoh Osorkon I from Karnak of Egypt and shown in Fig.22 [33]. Shoshenq is wearing half-sleeved tunic and a long Schenti with belt and long front trapezoidal tail. The sleeves and tail are decorated by straight lines and a figure may be for the Pharaoh who is the father of the Priest.

Fig.22 Priest Shoshenq of the 22\textsuperscript{nd} Dynasty [33].

- The last example is depicted from a standing statue of Priest Tjayasetimu of the 26\textsuperscript{th} Dynasty of the Late Period displayed in the British Museum and shown in Fig.23 [34]. He’s wearing a short Schenti with belt and front tail down to his knees.

Fig.23 Statue of Tjayasetimu [34].

IV. CONCLUSIONS

- The men clothing during the New Kingdom to the Late Period of ancient Egypt was investigated.
- During the 18\textsuperscript{th} Dynasty, the Pharaohs wore short and medium Schenti with front tail, either plain or decorated by lined linen texture.
- The front tail was either slightly trapezoidal or with extremely inverted trapezoid as in the case of Pharaoh Tutankhamun one.
- The ancient Egyptian Nobles wore medium Schenti in the 18\textsuperscript{th} Dynasty.
- Some of the Nobles of the 18\textsuperscript{th} Dynasty such as Sennefer wore full dress with half sleeves down to his feet and also down to the knees such as that of Engineer Kha.
- Normal people wore also medium Schenti during the 18\textsuperscript{th} Dynasty.
- During the 19\textsuperscript{th} Dynasty, the Pharaohs wore medium decorated Schenti through its linen texture and full dress down to the feet such as that of Ramses II and his son Merenptah which was fully decorated.
- Long Schenti was worn also in the 19\textsuperscript{th} Dynasty by less ranking staff.
- In the 26th Dynasty, Pharaoh Ramses III appeared wearing a colored short Kalasiris, medium white and colored Schenti and a Robe with half sleeves covering his whole bode.
- Short and Medium Schenti continued to appear in the 21st Dynasty among the medium ranking staff. They wore also T-Shirts.
- The tradition of using Medium Schenti, belt and front tail continued to appear in the 22nd Dynasty as a dressing for Pharaoh Osarkon I who wore also a Tonic.
- High ranking staff in the 22nd Dynasty wore also half sleeved Tonic and a Long Schenti with belt and trapezoidal front tail.
- Short Schenti with belt and standard front tail appeared also during the 26th Dynasty of the Late Period.

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BIOGRAPHY

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DEDICATION

Late Professor John Parnaby

I dedicate this work to the sole of Professor John Parnaby my supervisor in my Ph.D. research work at Bradford University during the 2nd half of 1970's.
How kind and great was this Professor. I learned from him a lot.