

## **Protective Equipment in Ancient Egyptian Daily Life Scenes**

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### **Abstract**

Ancient Egyptian art is full of daily life scenes which give us a great idea about the ancient Egyptian civilization. This study aims to identify the protective equipment that was used by individuals in different occupations like manufacturing, fishing, fowling, playing sports, riding chariots, and battles. These scenes were depicted on the walls of private tombs and some temples. Among this protective equipment is the papyrus float which was used by the fisherman and boatman during the sailing or hunting scenes for a protection from drowning, also there is a papyrus mat which was used by the herdsmen to protect himself from the wind in the desert. During the smelting process, the workers sometimes used stones or wooden sticks as handles to protect themselves from the heat of the vessel. As for the protective clothes, the ancient Egyptians used loincloth, gloves, wristbands, penis sheaths, face bandages, etc. Despite what was expected, there is limited evidence that ancient Egyptians used protective equipment to safeguard their workplaces, so this paper will examine these representations of the protective clothing or equipment was used by the Egyptians during their work.

*Keywords: Protective, Equipment, Float, Wrist bands, Gloves, Headgear, Shields*


### **Methodology**

The purpose of this study is to provide an analytical-descriptive examination of the various representations of protective equipment depicted in ancient Egyptian temples and private tombs. It will use examples of occupational scenes that depict protective equipment as a means of prevention.

### **Introduction**

#### **Objectives of the study**

1. Classifying the types of protection that the protective equipment offers.
2. Indicating the figures that depict the protective equipment.
3. Determine the variations and features of the protective equipment's locations and shapes that are shown.
4. Shed light on the development of the forms of the equipment if it exists.

In the ancient Egyptian language, the word  *rks* refers to equipment or gear (Lesko 2002, 280).

Protective equipment in ancient Egypt refers to various tools, gears, and clothing that individuals used to safeguard themselves from potential dangers, hazards, and environmental factors. These protective items served multiple purposes, such as providing safety during tasks, offering defense in battle, or ensuring health and well-



being in various contexts of daily life. Ancient Egyptians developed a range of protective equipment tailored to different activities, social roles, and circumstances.

The depiction of workers wearing protective clothing or equipment while performing their work, suggests a possible connection between their occupation and non-elite health issues. However, the challenge is identifying evidence of this connection. It is essential to take practical measures to safeguard workers from risks, such as extreme heat.

It is thought that the ancient Egyptians identified the problems and investigated ways to prevent them, offering a clear cause-and-effect relationship with workable answers. It would be assumed that these protective tools would be included in artistic representations as part of tools of the trade if they were often used. Despite what was expected, there is little evidence that ancient Egyptians used protective equipment to protect their workplaces. The representations help us to understand the kinds of dangers encountered and preventative action taken to avoid them. The examples illustrated in this paper show how protection was used in each occupation.

## **The Protective Equipment in Ancient Egypt**

### **s3 symbol as protective equipment**

The *s3* hieroglyph represents the concept of “protection”. It was often used in amulets and jewelry to transfer its protective power over the wearer. It was also found to be used on magic wands or batons during the Middle Kingdom. Various ideas have been offered as to the origin and appearance of the *s3* sign. There are two variations of the hieroglyph  V17 and  V18. The lower part of the hieroglyph was undivided as V18 in the Old Kingdom and was divided as V17 in the Middle Kingdom (Wilkinson 1992. 197).

The *s3* sign as protective equipment was employed in two roles such as papyrus life-preserver used by boatmen or rolled-up reed mat for herdsman.

### **The *s3* life preserver or float**

The *s3* sign shown in certain cases as a papyrus bandoleer worn by boatmen, herdsman, and fishermen, as claimed by the authorities whom Fischer cites (1999, 48), then it most probably is a life preserver, as assumed by Bates (1917, 231–232).



It should be noted, however, that the bandoleer is evidently termed  *kni* and that  V18, unlike the determinative of this word, is not divided at the bottom (see fig.1a, b). But the determinative of *kni* is virtually reduplicated by the Middle Kingdom example of *s3* (fig1, C), and from this period onward the bottom of the *s3*-sign was usually divided (Fischer 1999, 48).



Fig.1 (Fischer 1999, 48)

The swimming float or life buoy was familiar to the ancient Egyptians. It is a papyrus cylindrical device that has been bent twice to form a closed loop and occasionally appears in the equipment used by marshmen, boatmen, fowlers, and fishermen as they wore it around their necks as float (Bates 1917, 232).

During the Old Kingdom onwards, the ancient Egyptian boatmen and sailors were wearing a life preserver across one shoulder and their torso as found in the scene of the left side of the chapel's northern wall at Ti mastaba at Saqqara (5<sup>th</sup> Dynasty) (fig.2), the boatman seat at the stern of the boat and wearing the papyrus float across his shoulder to protect himself from drowning (Fischer 1999, 48). He may be a herdsman as he holds a stick of herdsman. Also, it was worn by herdsman or marsh men who fording the river with cattle. For example, a scene (fig.3) depicted at the north wall of the pillared hall of *K3-gmni* tomb (6<sup>th</sup> Dynasty), depicts a herd crossing a ford with a peasant sitting in a boat luring the mother with her calf, whom he holds by a foreleg and a rope. The peasant is wearing a life preserver across his torso.

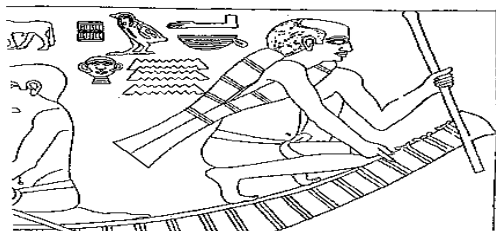


Fig.2 (Wild 1953, CXXIV)



Fig.3 (Firth and Gunn 1926, pl. 7)

The life preserver is also worn by herdsman or marsh men who fording the river with cattle. For example, a scene (fig.4) at Ti mastaba at Saqqara (5<sup>th</sup> Dynasty), on the eastern part of the chapel's northern wall represents two naked herdsman, on the left and right sides of the scene, wearing a bandoleer across their torsos while fording the river with their cattle's. There is similar scene at *3ht-htp* tomb (fig.5) at Saqqara (5<sup>th</sup> or 6<sup>th</sup> Dynasty), represents a naked herdsman crossing the Ford and wearing a bandoleer across his torsos.

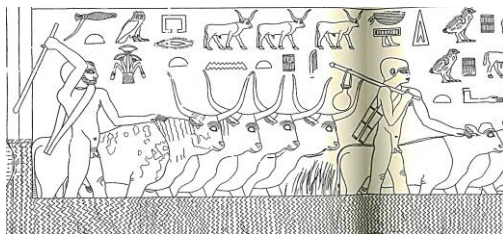


Fig.4 (Wild 1953, pl. LXXX)

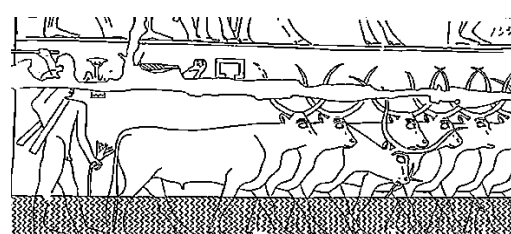


Fig. 5 (Ziegler 1993, 132)

The *s3* life preserver can be noticed among the main equipment and gears accompanied by fishermen and fowlers such as movable seats, baskets, etc., lying on the ground of the boats in several fishing and fowlers scenes, as these floats were worn by them when they were in dangerous areas of the marshes. For example, a scene at Mereruka's tomb at Saqqara (5<sup>th</sup> Dynasty) (fig.6), the fishermen are collecting their day's catch with two floats in the top of the scene as protective tools.

Another two examples, one of them is the fishing and fowling scenes at *Hesi-Re* tomb (6<sup>th</sup> Dynasty) at Saqqara (fig.7). A herdsman's life preserver is among the expedition equipment piled around the low seat in the stem. (Kanawati & Abd el-Raziq 2000, 25, pls. 11-15; El Menshawy 2001, 35). The second scene (fig.8) is the hunting scene at the north of the entrance of the main room of *Pepi-ankh* the middle tomb at Meir (6<sup>th</sup> Dynasty), which represents three expedition equipment in the stern of the boat; two of them are protective equipment. The first one is the *s3* life preserver, and the second one a special kind of seat made of reeds furnished with back and sides (Blackman 1924, 28).

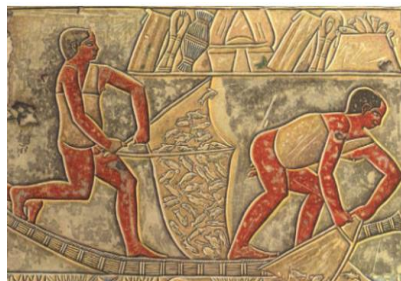


Fig. 6 (Wilson & Allen 1938, pl. 42)

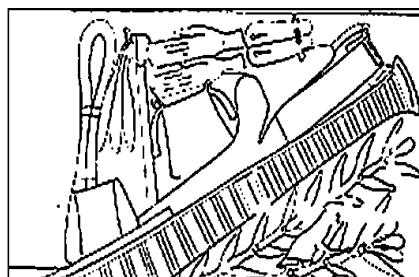


Fig.7(<http://egyptology.mq.edu.au/Linda%20Evans%20article.htm>)

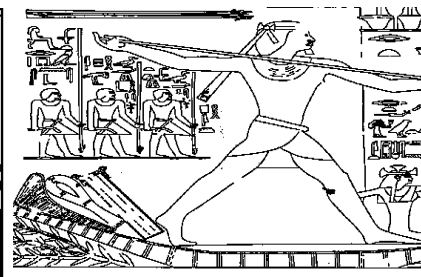


Fig.8 Blackman 1924, pl. VII

### The *s3* Roll-up mat or Shelter

The alternative interpretation for the *s3* sign is the herdsman's shelter (Gardiner 1926, 523). The herdsman in many representations carries *s3* sign over his shoulder on a stick as depicted on the limestone stela at the Cairo Museum, CG. 1419 (fig. 9) (6<sup>th</sup> Dynasty), which represents herdsman's equipment (the stick and the roll-up mat) (Borchard 1908, 78). The *s3* sign represents the mat that the herdsman put up in the field against the wind as a back-guard. The herdsman on the march carries this mat rolled and folded on the top curved rod over his shoulder. The staff and mat must have been the characteristic devices for the ancient Egyptian herdsman




because the hieroglyph for herdsman  *mnw*,  *s3w* (Gardiner 1926, 447), shows both objects. The extent to which Gardiner's remarks on the word for "shepherd" will be modified by these remarks will not be pursued here; however, it should have become understandable why the  sign could become the symbol of "protection". So, the mat represents the protection of the shepherds (Borchard 1908, 79).



Fig.9 (Borchard 1908, abb 5)

These cylinders are wrapped in cords at regular intervals, and when worn, the ends are visibly tied together. However, the cylinder can also occasionally be slung over the shoulder without the ends being tied, with the ends appearing to be tied to close the loop (Bates 1917, 231).

For example, A scene from the tomb of Nefer and Kahay at Saqqara (5<sup>th</sup> Dynasty) (fig. 10), depicts a herdsman crossing a ford with a life preserver or mat hanging on his stick.

These mats are the same folded mats depicted in the relief of the stela at the Egyptian museum (CG 1562) (Fig. 11) (5<sup>th</sup> Dynasty). The mats are plaited from papyrus and when it used, they are probably set up with the help of the staff curved at the top in such a way that they reasonably protect the back and sides of a man squatting on the ground as they are a kind of windbreak (Borchardt 1908, 78).



Fig. 10 (Mcfarlane & Mourad 2012, fig. 77)



Fig. 11 (Borchardt 1908, abb. 3)

Some different scenes depict the mat as a scarf like a scene at the west wall of the entrance corridor in Ptahhetep and Akhetetep mastaba at Saqqara (5<sup>th</sup> Dynasty) (fig.12) (de G. Davies 1901, 13). Another scene from *k3-gmni* tomb (fig. 13) where the herdsman wearing his roll-up mat as a scarf around his torso which was used as a windscreen.

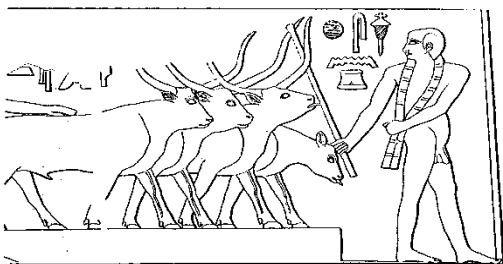


Fig. 12 (de G. Davies 1901, pl. VIII)



Fig.13 (photo taken by the researcher).

The scene of *Pepi- ankh* (fig.9) which was above-mentioned, has two objects; the  $\Lambda s^3$ -life preserver and a kind of seat. Borchardt regards the seat and the  $\Lambda s^3$ - shaped object as representing the same thing, namely a reed mat, the  $s^3$ - shaped object being the mat rolled up and then bent over, and the other object the same kind of mat spread out and employed as a wind-screen. But Blackman refused this opinion and considered the two objects are to be differentiated (Blackman 1924, 28-29; Borchardt 1908, 78-79).

Blackman considered the seat does not at all look like a mat unrolled, but much more like some special kind of seat (clearly made of reeds) furnished with a back and sides. It is seen as being put to that very use by a herdsman in the limestone relief in Egyptian Museum, CG. 1555 (fig. 14) (5<sup>th</sup> Dynasty), and it is placed, in the stern of the boat (Blackman 1924, 28-29; Borchardt 1908, 78).

Moreover, could a mat, large enough to be used as a wind-screen, be carried suspended from the end of a herdsman's stick, as it is seen to be in fig. 10 ? A relief in Pepi-Ankh's tomb chapel north of the entrance (fig. 15), adjacent to the one under discussion, seems to explain what the  $\Lambda$ - shaped object really is. A man who is plucking a waterfowl is setting on what looks like the object in question, thus indicating that it is a kind of cushion, no

doubt made of reeds. This cushion was of course placed on the bottom of the seat to add to the comfort of the occupant, though the artist, desiring to disclose what would have been concealed by the near side of the seat, has, in accordance with the usual Egyptian convention, placed it above the seat.

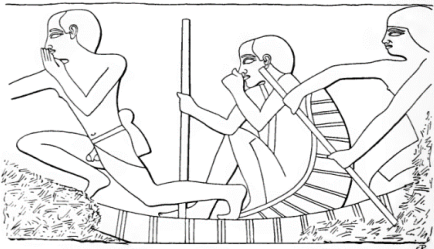



Fig. 14 (Borchardt 1908, abb. 4)



Fig. 15 (Blackman 1924, Pl.VIII)

### Using stones as protective equipment

Stones in the ancient Egyptian language known as *inr*  (Hannig 1997, 77). Protection could be especially important while dealing with molten metals at high temperatures. The ancient Egyptian artist, as is customary, depicted metal smelting furnaces above ground level. They were possibly partially buried in the sand (Scheel 1989, 16), although if shown in this way, they would be difficult to see. The sand around the partially covered furnace would become hot, yet the workers, like most depictions of the human figure, were barefoot (Hebron 2005, 112). Sometimes, the ancient Egyptians used stones and sticks to protect their hands from the heat of the vessels.

Hands were sometimes protected in some smelting metals scenes by using stones to handle the crucible and pour the molten metal into molds. Because the crucible was composed of a heat-resistant clay mix, a worker could raise and carry the vessel with its liquid contents to the next stage of the process using holders such as a pair of stones. This man is typically represented standing, ready to pound the liquid metal into a plate (Mcfarlane & Mourad 2012, 171).

For example, a scene in Mereruka mastaba at Saqqara (6<sup>th</sup> Dynasty) (fig.16), represents a metalworker pouring molten metal into an open mold while his colleague tries to hold back any contamination of the crucible. To protect his hands, the worker used stones or blocks of wood to hold the very hot crucible. (Scheel 1989, 28).

The stones were also used in the cooking scene, for example, a scene in the tomb of Dagi (TT 103) at Thebes (11<sup>th</sup> Dynasty) (fig.17), shows the preparation and storing of conical bread loaves. One of the females empties one of the molds by turning it upside down after the bread has been baked and to protect her hands from the heat, she uses two stones as oven gloves. (Hudáková, 2019, 213-14; fig. 7.8).



Fig.16 (photo is taken by the researcher.)

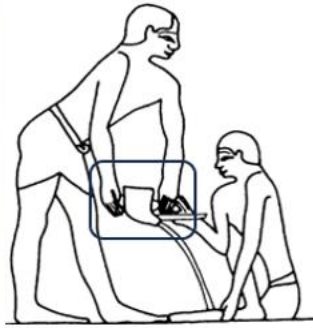




Fig.17 (Davies, 1913, Pl. XXXVIII)

### Using sticks as protective equipment

The sticks or tree branches is known in ancient Egyptian language as *gnw*   (Hannig 1997, 901). Hands were also protected by using a stick cradle when handling the clay crucible and pouring the molten metal into molds. The worker is standing in the same position in the above-mentioned scenes (McFarlane & Mourad 2012, 171; Hebron 2005, 111).

For example, scenes on the south wall of the transverse hall of Rekhmire tomb at Thebes (18th Dynasty) (fig. 18) depict two groups of workers working in pairs to complete two tasks: maintaining furnace heat and melting metal. A mound of charcoal and a huge vase (perhaps containing water to cool down the tools) are next to the furnace. The metal-containing crucible is inserted in and withdrawn from the furnace using wood branches.



Fig.18 [https://www.osirisnet.net/tombes/nobles/rekhmire100/e\\_rekhmire100\\_06.htm](https://www.osirisnet.net/tombes/nobles/rekhmire100/e_rekhmire100_06.htm)



Figs. 18 a, b, c

Another similar scene from Puyemre tomb at Thebes (18<sup>th</sup> Dynasty) (fig.19), represents two metal workers lifting a crucible containing molten metal off an unseen fire using two fresh branches, which grip without being consumed (de G. Davies 1918, 73,74).

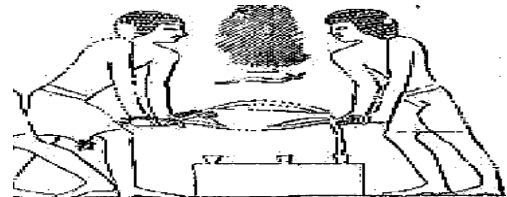


Fig.19 (de G. Davies 1918, Pl. XXVIII)

So, the vessel was removed from the fire using a pair of freshly cut wooden sticks, whose dampness prevented them from burning due to their closeness to the boiling metal, and then the vessel was moved safely to pour the molten copper into the Mold. (Brier & Hobbs 2008, 234).

Finally, this level of care was not always used in the representations (see Blackman 1953, Pl. XVII). It might indicate that the artist ignored the fact that metal workers deal with these very hot vessels. (Lucas 1962, 217). Hunter (1978, 770) reports the appearance of callosities on hands of bakers and glass makers because of the uncovered heat handling. While the callosities built up, it allowed the worker to deal with hot coals without harm. The ancient Egyptian smelters may have created a similar protective skin covering, as mentioned by the 'Satire of the Trades': *'I've seen the metalworker at work in front of his furnace, with fingers like crocodile claws.'* (Lichtheim 1973, 186)

This perspective might provide evidence to support a theory that metalworking-related hand hardening was a condition. The absence list from Deir el- Madina has a single mention of burned hands and feet (Janssen 1980, 136). The representation shows either the metal workers carried the vessels with no protection or the artist's representation of protective equipment was unclear. It is believed that if the artist identified certain equipment with a specific work, he would include them in representations to explain the work being depicted. (Hebron 2005, 112).

### **Loincloth as protective equipment**

Examples of protective clothing for individuals were the loincloth as well as the leather loincloths, wrist bands, and penis sheaths. According to Fischer (1961, 74) scalloped edged aprons were worn as genital protection during fighting and were of Nubian origin.

The loincloth was the typical garment for workers (Hall 1986, 25). They were often represented bare-foot and head, their garments offered no defense against harm or the effects of working in the sun (Filer 1995, 14).

**Leather loincloths (fig.20)** were worn by men who worked as soldiers, sailors, craftsmen, and servants, as a durable alternative to the typical linen garment. It is one of the stranger clothes in Ancient Egyptian wardrobe which was originally divided in a manner to create a slit network. All the leather clothes were made from a single piece of gazelle hide. It was most popular during the New Kingdom (Vogelsang 1993, 17; Marrazi 2018, 212).

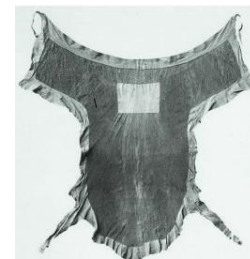


Fig. 20 (Vogelsang 1993, pl.6)

The leather loincloth's broad link with occupation makes it impossible to attribute a protective function to it. While sailors may need more protection while rowing as a water resistance, other cases suggest that the durability of the clothes is related to their function, more than to the wearer's safety. In general, it appears that the purpose of the garment was for protecting its wearer's linen loincloth from hard-wear. Nevertheless, such clothes have been discovered in the tombs of kings, high court officials, and Nubian mercenaries



(Marrazi 2018, 212; Ebied 2018, 58-59). At the site of Balabish, a significant amount of leather clothing, including items referred to be loincloths, was discovered by Wainwright (1920, 28–29), who called these finds "protective kilts of slit leather".

There are many depictions of Egyptian workers with leather loincloths such as Rekhmire tomb at Thebes (18<sup>th</sup> Dynasty), scenes such as workers laboring in gardens and fields of grain and flax, sailors (fig.21), men creating mud-blocks (fig.22), servants delivering supplies toward a temple, and African offerings bearers (fig.23) are among the most relevant ones (Vogelsang 1993, 16-26 ).

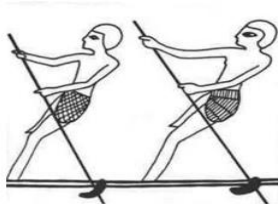


Fig.21 (de G. Davis 1944, pl. LXVIII)

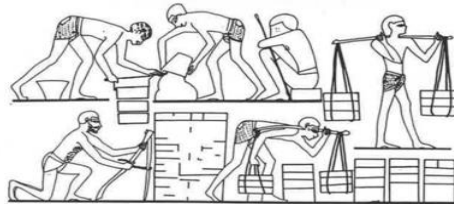


Fig.22 (de G. Davis 1944, pls. LVIII-IX)

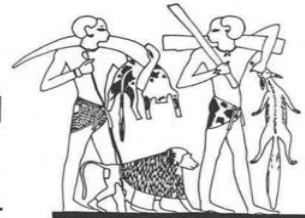


Fig.23 (de G. Davis 1944 pl. XIX)

### Penis Sheath as protective equipment

The penis sheath was an important part of a man's costume in ancient Egypt. Egyptian wore clothing to emphasize a man's front of the body. A classic kilt, wrapped around the thighs and made of leather, hide, or linen, was typical male clothing. The genital area was considered sacred because of its function in reproduction. These sheaths were made of ivory which also protected them in battle and against insect bites, rather than as contraception (Pendergast 2004, 27).

One of ancient Egypt's most enduring emblems was possibly inspired by the penis sheath. The *ꜥnh* sign means "life". Some scholars suggest that the *ꜥnh* sign is related to the ceremonial penis sheath worn by Egyptian kings during the *ḥb sd*, such as King Djoser (fig.24) (Baines 1975, 7; Pendergast 2004, 27). The first appearance of the penis sheath as a protective cloth is the decoration worn by the two attendants of the mythical creatures on Narmer palette (1<sup>st</sup> dynasty) (fig.25) (Baines 1975, 3).

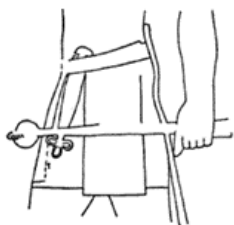


Fig.24 (Baines 1975, fig.5)



Fig. 25 (Baines 1975, fig.1)

Its representation consists of a conical tube tied towards the end by a separate element whose loose end hangs slightly downwards. The fact that this earliest example is not functional suggests that later cases will be liable to assume relatively free forms, especially as the context of its occurrence is not such as to indicate that it was worn by normal people (Baines 1975, 3-4).

The penis Sheath was later replaced by a strapped belt or was added to the kilt, whose line can be seen at the knees (Baines 1975, 9-10). Penis sheaths were represented connected with combat, since some warriors depicted in combat scenes in Antef tomb at Asasif (11<sup>th</sup> Dynasty) (fig. 26), where Nubian mercenaries aprons were some forms of codpiece which covered the genital area. These aprons are individual pieces which are folded into belts. The cloth was folded to create the shape of scalloping at the lower edge. This suggests that they were two separate pieces of clothing. (Vogelsang 1993, 50-51).

Another example is a scene in the east wall of the south entrance of Senbi tomb-chapel at Meir (12<sup>th</sup> Dynasty) (fig.27), represents the nomarch Senbi and his son hunting in the desert preserves some interesting details of costume. Both have a penis sheath consisting of a narrow tube and a 'sporrán'-like flap. The penis is inserted in the tube the mouth of which is tied. The tube and sporrán are then passed through the belt so that the penis is held up whilst the wider flap hangs down to cover the front of the body thereby providing both decency and protection (Blackman 1914, 32).

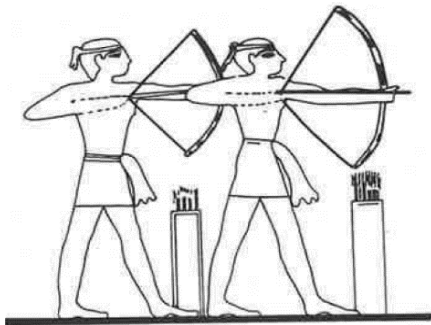



Fig.26 (Vogelsang1993, fig.3:26)



Fig.27 (Blackman 1914, pl. VII).

Other researchers associate workers' penis sheaths with an attempt to avoid bilharzia infection as the worm was thought to reach the body this manner, while the literature indicates that no such connection existed in ancient Egypt (Hicks 1983, 16).

This worm which lives in freshwater was mentioned in some medical papyri as they are harmful and dangerous to the body. The schistosomiasis (Bilharzia) disease is called in

the ancient Egyptian language as  which was mentioned 50 times in four papyri (Ebers, Berlin, Hearst, and London). The penis is a determinative in this word. This word can also refer to a variety of other illnesses like gonorrhoea, kidney stones, and genitourinary neoplasms. So, most likely aware of the sickness spreading through water, ancient Egyptian priest physicians frequently advised against contaminating rivers' water. In Chapter 125 of the Book of the Dead, contains among other mistakes, *"I have not uttered curses, I have not waded water"*.


To stop bilharzia worms or other urophilic worms from ascending the urinary system and accessing the bladder, fishermen, farmers, and other individuals who often contact with river waters were advised to wear linen or leather penis sheaths. Nonetheless, some researchers believed that throughout their extended stay, this "genital sheath" served as a urine receptacle to prevent contaminating the water. (Hanafy & Saad & Al-Ghorab 1974, 117; Farouk 2022, 177). An example of a scene of a worker (19<sup>th</sup> Dynasty) (fig.28), hunting in the marshes, and carrying a sling. His penis sheath is to protect him from bilharzia.



Fig.28(<http://parasitology.kasralainy.edu.eg/draft-plan-status>)

### Headgear of workers as protective equipment

It was purposeful to use the term "headgear" to prevent conflict with other head coverings, such as helmets, diadems, and crowns, which had specific significance and

were not often worn or seen in Egypt. The word , *idg* refers to headgear, or kerchiefs, in the language of ancient Egypt (Lesko 2002, 55).

A headcloth worn atop the hair is a well-known garment, used to protect hair from dirt, to keep it from falling into the face, and to keep it from going into the dough (Hudáková 2019, 251). There are two types of ancient Egyptian headgear: caps and kerchiefs.

A cap is a small, formed item of headwear with no brim and covers most of the head. Wearing caps was popular in various depictions, but in the case of craftsmen, they appear in environments with a lot of dirt and dust, such as a field being harvested (Vogelsang 1993, 169). For example, a scene in Menna's tomb at Thebes (18<sup>th</sup> Dynasty) (fig.29), represents peasants working in a field, two of them are wearing tight caps.

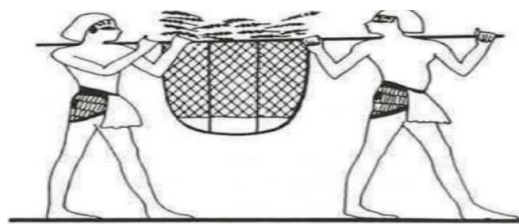


Fig.29 (Davies 1936, pl. LI)

The term kerchief is a head-cloth that covers either whole or part of the head. They are usually fashioned from a single piece of cloth that has been neatened around the edges but not sewed into an exact shape (Vogelsang 1993, 173). One of the straightforward ways to wear a kerchief can be found in a model of a lady grinding grain (fig.30) from the Old Kingdom (Cairo Museum CC110) (5<sup>th</sup> Dynasty), who is wearing a short length of cloth over her hair. A thin band of linen wrapped behind the head served as the kerchief's holder (Vogelsang 1993, 171-172). Another similar example with a somewhat longer kerchief found on a statue of a servant girl with a basket on her head now in the Ny Carlsberg Glyptotek, Copenhagen (AE IN 670) (fig.31) (11<sup>th</sup> Dynasty) (Vogelsang 1993,173-174).



Fig.30 (Hornemann 1966, no. 1032)



Fig.31(Vogelsag 1993, fig. 10:4)

Another form of kerchief is small and tight, appears in a very few Old and Middle Kingdoms representations. For example, the harvesting and threshing scene in Kahif mastaba at Giza (5<sup>th</sup> Dynasty) (fig.32). Grain is being tossed into the air by two women who wear tightly fitting caps around their heads or cloth strips tied behind the head (Vogelsang 1993,174). Another example from Amenemhat tomb at Beni Hassan (12<sup>th</sup> Dynasty) (fig.33) depicts two women, the left one is occupied with grinding and the other one is filling the bread molds, she wears a head-cloth with a pointed end over her hair.



Fig.32 (Junker 1943, Taf. VI, XIVb).

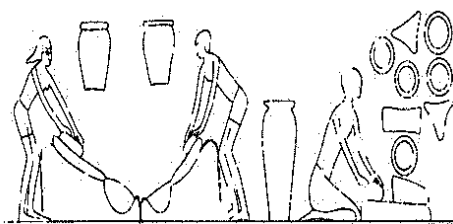


Fig.33 (Kanawati & Evans 2016, pl. 90)

A third form of kerchief is a large square of cloth wrapped over the hair and then knotted in some way at the back of the nape and was used by those who worked in dusty or dirty environments (Vogelsang 1993,175-176; Winlock 1916, 239). For example (fig.34), a scene of female baker in Djehutyhotep tomb at Deir El-Barsha (12<sup>th</sup> Dynasty) represents wearing a piece of cloth tied in the back (Hudáková 2019, 252).

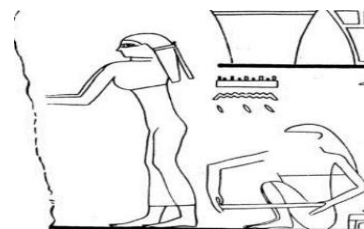


Fig. 34 (Newberry 1895, pl. XXV)

This form of kerchiefs is commonly appeared in New Kingdom representations. For example, in Menna tomb at Thebes (18<sup>th</sup> Dynasty), some peasants are shown wearing lengths of fabric wrapped around their heads; with no indication as to how they were tied. That head- cloth was also worn by peasants thrashing grain and men directing bulls such as the scene in Menna tomb (fig.35). In each case, they are wearing a head covering that is knotted at the nape with a tie, probably a piece of string. The rest of the cloth draped over the person's back in folds (Vogelsang 1993,176).

This form of kerchief is associated with winnowers, and it is sometimes known as "winnowers' kerchief". However, it was not only the winners' prerogative. (Vogelsang1993,176). For example, in the tombs of Nakht (fig.36) and Menna (18<sup>th</sup>

Dynasty) (see 87 شكل موسى، 2022)، representations of a group of winnowers wearing this kind of kerchiefs to protect their hair or heads from dirt. Another example (fig.37) of group of fishermen in the tomb of Ipuy (19<sup>th</sup> Dynasty) wearing kerchiefs over their heads that are tied in some way that the winnowers do (Vogelsang 1993,176- 177).

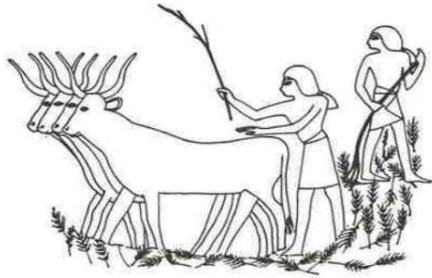


Fig.35 (Davies 1936, I, pl. L1)



Fig. 36 (de G. Davies 1917, pl.XXI)



Fig.37 (Davies 1936, pl. XCVII)

According to the representations, these headgears were worn in relation to the work in hand, particularly in unclean environments. It is believed that Egyptians merely wrapped any appropriate length of cloth over their heads. It might also be claimed that such clothes were worn for a specific period to protect the head and hair, instead of creating an item of everyday clothing. However. (Vogelsang 1993, 169-178).

### **Gloves as protective equipment**

The ancient Egyptians had no word for “gloves”; instead referring to them as “cloth of arm” or “arm covered”. *ḥbs rmn* was identified by Faulkner (1988, 167) as “cloth of arm” or “with arms covered in clothing”. Ancient Egyptians used gloves for different functions. Aside from being used for fishing and hunting, they served as purification process tools. Moreover, it was employed for protection, adornment, and during the Amarna Period as a part of official ceremonial clothing or as a type of award (El Menshawy 2001, 35).

The Gloves were depicted twice in fowling and fishing scenes in *hsii* tomb at Saqqara (6<sup>th</sup> Dynasty) (see fig.7), where *hsii* represented in a papyrus boat with a selection of trip equipment piled around the low seat in the stem including gloves. (Kanawati 1999, 67-76; Kanawati & Abd el-Raziq 2000, 25, pls. 11-19, 54; El Menshawy 2001, 35; Shehab 2021, 91). The gloves here may have been intended to protect *hsii*'s hands and to provide a better grip on his hunting weapons.

De G. Davies (1908, 22) and Helck (1978, 338) argued that the use of gloves in the 2<sup>nd</sup> intermediate period and the New Kingdom was for the protection of hands from the pressure of the reins of the chariot.

A New Kingdom representation of the gloves represents on the west wall of the chapel in Renni tomb at El Kab (18<sup>th</sup> Dynasty) (fig.38); Renni followed by a servants called “Djehuty” who hold a battle-axe in his left hand and an archer's glove over his right arm to protect it (the glove is like Tutankhamun’s ones) (Shehab 2021, 92).



Fig.38([https://www.osirisnet.net/popupImage.php?img=/tombes/el\\_kab/renni/photo/renni\\_ouest\\_6061.jpg&lang=en&sw=1280&sh=720](https://www.osirisnet.net/popupImage.php?img=/tombes/el_kab/renni/photo/renni_ouest_6061.jpg&lang=en&sw=1280&sh=720))

### **Shoulder belt or strap as protective equipment**

It is a simple piece of cloth with a range of widths and sizes. A body strap is typically a thin piece of cloth that is wrapped over one or both shoulders. It could be functional, ornamental, or symbolic purpose (Vogelsang1993, XXI). For example (fig.39), an offering bearer model from Meket-Re tomb at Thebes (11<sup>th</sup> -12<sup>th</sup> Dynasties). The first man of the group has thrown a corner of his kilt up over his shoulder or a shoulder belt to protect his skin from the heavy vase he is carrying (Winlock 1955, 42, pl.32).

A second model of Meket-Re's granary (fig.40); represents two thick-haired men filling a bushel measure and pouring its contents into sacks which are carried away by six strong men, each of whom is wearing a corner of his kilt thrown up over his shoulder as a protection from the rough sacks. (Winlock 1955, 66).

A third example (fig.41) from Meket-Re models (Cairo Museum, JE 46715) which is a fishing scene represents two canoes with a trawl between them. Because the net was heavy when full, each of these men wore a wide white strap across his left shoulder for protection of his skin when he poured his entire body into the task of pulling on the rope. (Winlock 1955, 72).



Fig.39(<https://www.metmuseum.org/art/collection/search/544125>)



Fig.40(<https://www.metmuseum.org/art/collection/search/545281>)



Fig. 41(<https://egypt-museum.com/model-with-a-fishing-scene/>)

### **Arm shield as a protective equipment**

This equipment is considered one of the single sticks fencing protective equipment. Single-stick fencing was a type of duel that appeared from the New Kingdom Period later along with different foreign habits and practices. The first representation of single stick fencing was discovered in a tomb at Tell El-Amarna, while the four other representations

were found in an early 19<sup>th</sup> dynasty tomb, King Ramses III's temple at Madinet Habu, and on two limestone fragments (19<sup>th</sup>, or early 20<sup>th</sup> Dynasty) (fig.42) (Touny & Wenig 1969, 23; Ebied 2015, 4-5).

Single-stick combat is like the modern Egyptian games in Upper Egypt with a stick called “Nabowt”, and the game itself called in Arabic as “El-tahteb”, (Vandier 1940, 480- 482, figs. 57- 58). The game is still played by two players, typically soldiers who stand face to face while brandishing short batons and wearing various protective gears (Decker 1992, 189, no. 58.).

The fencers are armed with a long stick with a little knob at the tip and short straps at the lower end for a secure grasp. The fencers are Egyptian army warriors, as shown on a painted ostrakon from Deir el-Medinah (20<sup>th</sup> Dynasty) (fig. 42). The two fencers have their lower arms protected by small narrow wooden shields bound with straps on to the underside of the left lower arm. This was intended to secure the face from accidental blows; the opponent’s thrusts were held off by raising the left arm and protecting the arm and the hands. (Touny & Wenig 1969, 23, 173).

Another example, from the hall of Amenmose tomb at Thebes (18<sup>th</sup> Dynasty) (fig.43), which depicts celebrations of the defied Amenhotep I, where two fencers dueling with single sticks in the second court of Thutmose III’s mortuary temple. This sport scene depicts fighting rituals during the festival of Amenhotep I, and they were observed by the standing statue of Thutmose III in the bark shrine of the temple (Zein 2022, 96; Decker 1992, 82). As depicted here the two fencers wear arm shields.

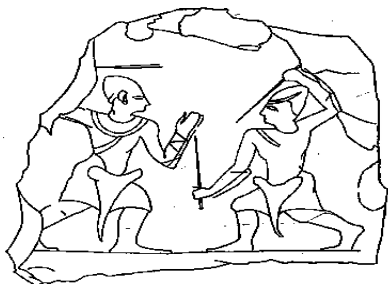


Fig.42 (Vandier, 1940, fig.46)

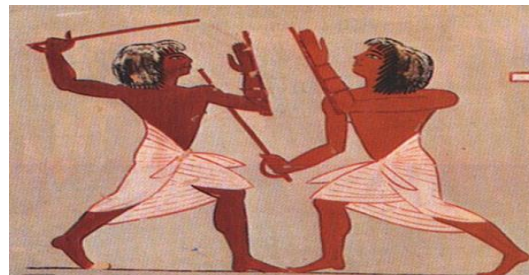


Fig.43(<https://www.metmuseum.org/art/collection/search/548569>)

### **Face shield as protective equipment**

In one case of single- stick fencing, the faces of the fencers are protected by bandages or shields made of leather over the chin and ears to protect the forehead and chin. (Touny & Wenig 1969, 23). As depicted in the combat scene from Ramesseum temple (19<sup>th</sup> Dynasty) (fig.44), where wide leather strips guarded the forehead and chin, though it is uncertain if the fighter wore it as a cap or if he just wrapped those parts with leather strips.



Fig.44 (Touny & Wenig 1969, fig. 6).

## Fingers shield as protective equipment

Some of the fighting sticks were equipped with basketlike hand guards to protect the fingers. Old-fashioned curved sticks were also used, some of which ended in a knob (fig. 45). Archeologists have only discovered one staff that was so long and heavy that it needed to be wielded with two hands (as is customary with the staves used by 20<sup>th</sup> century Egyptian stick fighters). (Decker, 1992, 84).

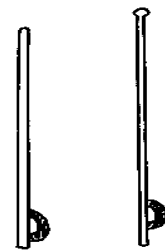


Fig. 45 (Decker 1992, fig.53)

## Wrist/forearm band as protective equipment

The ancient Egyptian archer, like modern archers, had to deal with the painful snap of the released bowstring against his arm. The solution, then as now, was to pad the wrist and forearm to protect these sensitive parts from injury (Decker 1992, 44). Among the accessories of the archer are the leather bands to soften the painful snap of the bowstring (Decker 1992,11, 44; Watson 1987, 51). The protective wristband appeared from the First Intermediate Period on the walls of *ʿnh tfy* tomb (fig. 46) and it was made from horns (Vandier 1950, 97; 228، 2016 عمران).

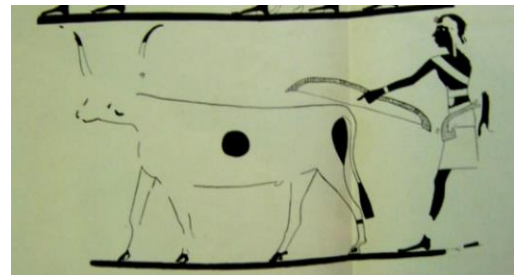


Fig. 46 (Vandier 1950, Pls. XXVI)

From the Middle Kingdom, archers used to wear leather wrist guards to protect them from the whip of the bowstring following release of the arrow. Examples of wrist guards were found in the tombs of the slain soldiers of the king Mentuhotep at Deir El-Bahari (11<sup>th</sup> Dynasty) (fig.47). Four archers' wrist guards of leather were found with the bodies of the soldiers. One of them is in perfect preservation and still attached to the left wrist of one corpse to protect his left wrist from the bow cord. The wrist guard was a round-ended tab of black, deeply grained leather. From the narrow end of the guard proper there were two straps cut out of the same piece of leather. After it had gone twice around the wearer's wrist, the longer strap was passed through an eyehole at the end of the shorter (Winlock 1945, p.10).



Fig.47 (Winlock 1945, pl. IV).

For example, a mentioned-above scene in Senbi tomb at Meir (12<sup>th</sup> Dynasty) (fig.27) depicted Senbi wearing in his right hand a leather wrist guard to protect his wrist, and another scene on the north wall of Antefoker tomb at Thebes (12<sup>th</sup> Dynasty) (fig.48), which represents Antefoker in desert hunting scene and wearing a wrist guard. While, from the New Kingdom the leather wrist guard was not only placed around the wrist but was also locked by a sting knotted over the elbow and sometimes covered the thumb and forefinger (Wilkinson 1847, 306-307; 93-92، 2013 عبد الحي). In the tomb of Neferhotp at



Thebes (18<sup>th</sup> Dynasty) (fig.49), Neferhotp wears a protective arm guard with leather bands under the elbow.

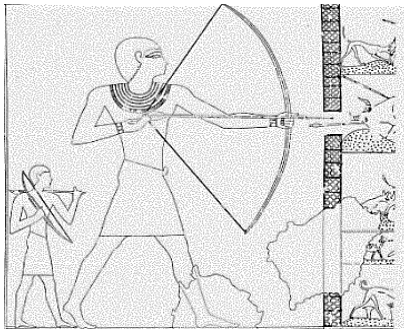


Fig.48 ( Davies 1920, pl. VII)

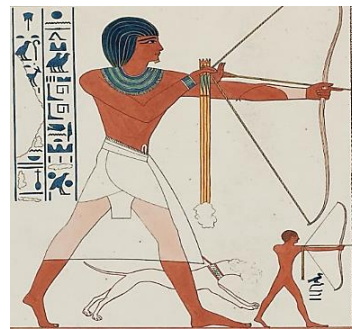


Fig.49 (<https://digi.ub.uni-heidelberg.de/diglit/cailliaud1831/0055/image>)


### **Metal finger ring as protective equipment**

The archaeologists have found finger rings (fig. 50), which presumably eased the archer's effort. (Decker, 1992,11). so, the archers sometimes depicted wearing a metal finger to protect it.



Fig.50 (Müller & Wolfgang 1989, 30)

### **Shields as protective equipment**

The word  *kr'w* means shield in ancient Egyptian language (Hannig 1997, 862). The shield is the oldest piece of protective equipment used by soldiers in the ancient Egyptian. Its main purpose is to protect fighters against arrows, spears, and swords. They used different materials and designs to make the use of shield easier (Wernick 2015, 48).

The ancient Egyptian soldiers used the arch-topped shields from the Predynastic period which were made from some sort of animal hide (usually cowhide) (McDermot 2002, 57; Dean 2017, 53).

The first recorded example of a narrative military event appears in Tomb 100 at Hierakonpolis (fig.51), depicting two warriors, one of them using an animal skin as a shield in combat (McDermot 2002, 57). The shields during this period were made of leather stretched over a wooden frame and painted to resemble the texture of gazelle or cowhide. They possessed a tail remnant from a cadaver of a carcass (McDermot 2002, 57; Dean 2017, 57).



Fig.51 (Leeman 2019, 19)

The only representation of soldiers carrying shields from the Old Kingdom at the Abu Gurob Sun Temple (McDermot 2002, 58; Dean 2017, 54). Model shields were a common feature of Middle Kingdom burial equipment. During the Middle Kingdom, three types of shields were identified.

The large body shield is the common style of the first part of this period. These shields were the same ovoid style and were made in two sizes (1m to 1.5m). The large shield, depicted for example in Djehotyhoteb tomb (fig.52) at el-Bersheh, becomes characteristic of the type of arm adopted during this era. These shields are made of, or painted to imitate, cow skin. If these large shields were to be used in battle, they were probably designed to protect several men at once. They had a concave shape attached to the top that acted as an attachment point for a shoulder strap (McDermot 2002, 59-61; Dean 2017, 54-57).



Fig.52 (Newberry 1895, pl. XXIV)

Two types of shields were used in duels, where soldiers were represented fighting in pairs on the level register. The first type is designed to protect the head, shoulder, and genitals, while the second one is shorter, and was designed to protect the head and the abdomen. Both panels are often double the width of the soldier's body. The two types have a strengthened outer band and are represented with plain panels or depicted in the traditional black and white hide (McDermot 2002, 60-62). Examples can be found in the scenes of the Middle Kingdom tombs at Beni Hassan as tombs of Amenemhat (no.2) (11<sup>th</sup> Dynasty) (fig.53), and Khnomhotep II (No.3) (12<sup>th</sup> Dynasty) (fig.54) and from one of the best sources for information about the ancient Egyptian shields from tomb of Mehseti at Asyut (11<sup>th</sup> Dynasty) (fig.55), which included two painted wooden models of groups of soldiers (Cairo, Egyptian Museum, JE 30986).



Fig.53 (Newberry 1893, Pl. XVI)

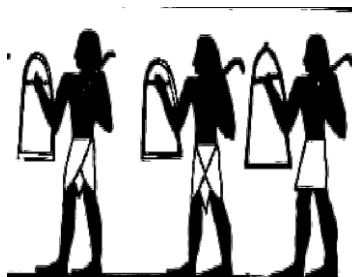


Fig.54 (Newberry 1894, Pl. XV)



Fig.55 (<https://egypt-museum.com/model-of-ancient-egyptian-soldiers/>)

A wooden handlebar could be placed across the middle of the shield body or shield handles could be carved out of the center of the shield's wooden framework. Additionally, it has been proposed that leather straps may be fastened to the shield's handle, allowing the shield to be carried over the shoulder and ensuring both hands can be left free (Dean 2017, 58).

During the New Kingdom, there were changes in the design of the shields. They became a more rounded shape, with the ends narrower than their midsection with a convex top and were made of wood which would either be covered in animal hide or painted in a black and tan design (Dean 2017, 58; McDermot 2002, 63). Examples appeared in the

New Kingdom private tombs such as the tomb of Ken-Amun at Thebes (18<sup>th</sup> Dynasty) (Fig.56) and, in temples like Madinat Habu temple (fig.57).

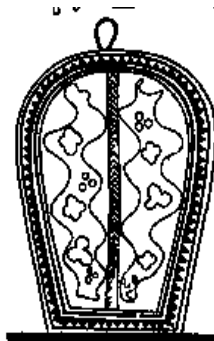


Fig.56 (de G. Davies 1930, pl. CVII)



Fig.57 (The Epigraphy survey 1930, pl. 16)

### **Helmet as protective equipment**

The word  $\overline{\text{m}} \text{ } \overline{\text{d}} \text{ } \overline{\text{m}} \text{ } \overline{\text{t}} \text{ } \overline{\text{d}} \text{ } \overline{\text{b}} \text{ } \overline{\text{n}} \text{ } \overline{\text{n}} \text{ } \overline{\text{t}} \text{ } \overline{\text{p}}$  *dbn n tp* means helmet in ancient Egyptian language (Hannig 1997, 974). Another protective equipment is the helmet. The ancient Egyptians used a variety of protective headwear in battles. Helmets have very little to no artifact evidence that has survived, thus the majority of what we have about them comes from pictorial sources (Dean 2017, 62).

The first evidence about the use of bronze or fabric, by the Egyptian soldiers' dates to the New Kingdom (McDermot 2002, 47). During the Middle Kingdom and before the invention of helmets, ancient Egyptian soldiers employed a creative technique in which they dressed their hair in a thick, bushy style to protect their heads from harm. This theory appears to be supported by modern artistic representations (like as the models of the spearmen discovered in Mehseti's tomb) and the preserved military remains from Mentuhotep II's soldiers showing that hair extensions were used to shield ancient warriors' skulls from arrowheads (McDermot 2002, 47; Winlock 1945, 7).

The first known evidence of a bronze helmet is in Amenmose tomb at Thebes (18<sup>th</sup> Dynasty) (fig.58), where it was adorned with ostrich feathers. Later, helmets are shown without decoration and with a more conical shape in Menkheperasonb tomb at Thebes (18<sup>th</sup> Dynasty) (fig.59) (McDermot 2002, 47). Ten of these helmets are depicted on the northern side of the east wall of the chapel of Rekhmire tomb (18<sup>th</sup> Dynasty) at Thebes (fig.60) (de G. Davies 1944,38) together with eight white helmets of the same design depicted on the south side of the west wall of the outer hall from Ken-Amun's tomb (18<sup>th</sup> Dynasty) at Thebes (fig.61). Metal helmets are rarely shown being worn by Egyptian soldiers during this period, and they were likely only used during northern campaigns where the enemy had to be confronted head-on (de G. Davies 1930, 31)



Fig.58 (Davies & de G. Davies 1933, Pl.XXXIV)



Fig.59 (Davies & de G. Davies 1933, Pl.V)

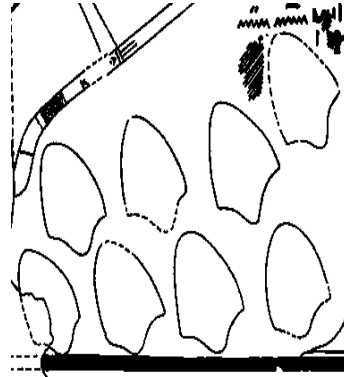


Fig.60 (de G. Davies 1944, pl. XXXVII)

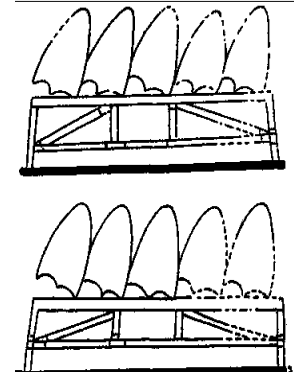


Fig.61 (de G. Davies 1930, XXII)[][][].

The artistic portrayals of helmets being used during battles, examples of which can be seen in the battle scenes against the Sea People at the temple of Ramses III at Karnak (fig.62), also his temple at Medinet Habu (figs.63-64) where archers and soldiers wears different shapes of the helmets.

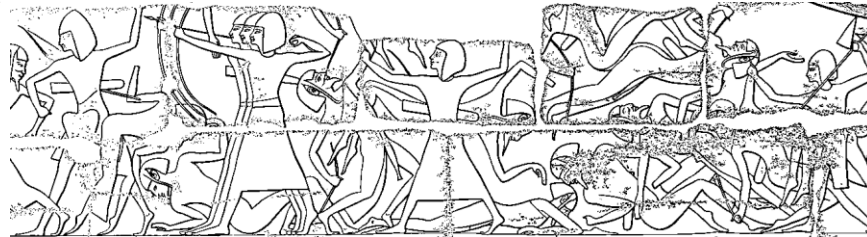


Fig.62 (The Epigraphy survey 1936, pl.116)

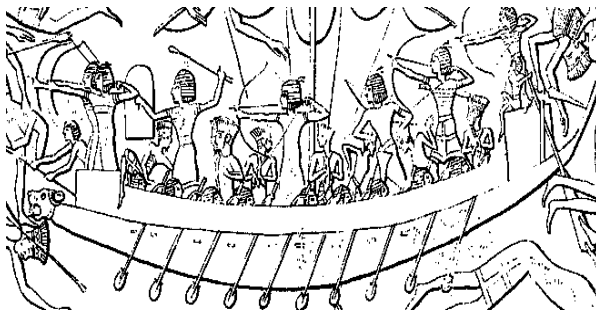


Fig.63 (The Epigraphy survey, 1930, pl. 37)

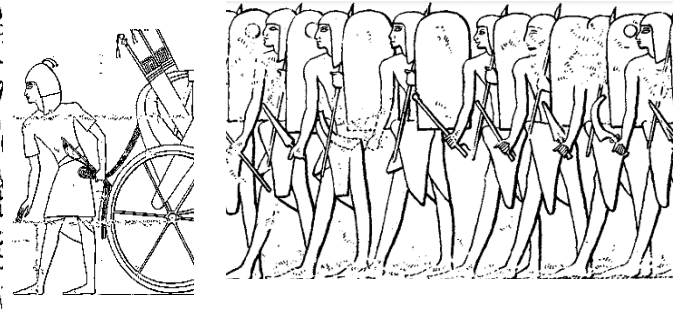


Fig.64 (The Epigraphy survey, 1930, pl. 37)

Fabric helmets also appeared during the New Kingdom, which are depicted with tassel ornaments (McDermot 2002, 48-49). Stick fighters also wore helmets (see fig.42).

The helmets' shapes can be summarized as follows (fig. 65): some stopped just below the ear, while others reach the shoulder. The peak, which ended with an angled point, was decorated with two tassels. These were green, red, or black in color. The long helmet, which fit less closely to the back of the head, was pleated at the lower edge with a wide border, and in some cases was made up an upper and under fold. Another, worn by

spearmen, fighters and charioteers being padded and reached the shoulder with rim with no tassels, and fitting close to the top of the head, it became wider at the base, the forehead covered with a separate piece linked to the other part (Wilkinson 1847, 329-330).

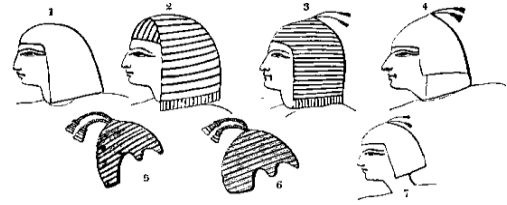


Fig. 65 (Wilkinson 1847, fig.46)

### **Body armor as protective equipment**

The word *tyn* means corslet or body armor in ancient Egyptian language (Hannig 1997, 959). The body armor is a sort of protective equipment for ancient Egyptian soldiers (Dean 2017, 65). Many depictions of the First Intermediate Period show the use of bands or straps that were crossed and fitted around the shoulders and breasts. During this period, strapping was not a typical component of military uniforms for example from the tomb of Amenemhat (No.14) (fig.66) at Beni Hassan, but it was also worn by sailors, laborers (fig.67), dancers, and acrobats. It was suggested that these bands were made of linen or leather. Some scholars assumed that these bands could not provide any protection against weapons such as swords, axes, or maces. It is used as a grip, attachment device, and as a light form of protection (McDermot 2002, 50).



Fig.66 (Newberry 1893, pl. XLVII)



Fig.67 (Karmin 1999, fig. IV)

There are unique representations of archers and infantrymen from the tomb of Djehutyhotep at Deir el-Bersheh, wearing the first example of breastplates in the form of leather or linen straps crossed over an oval plate in the center of the chest on the left (fig.68) and right-hand walls of the inner chamber (fig.69) (Newberry 1895, 17, 38; Watson 1987, 48). These plates were made of leather or reinforced linen.

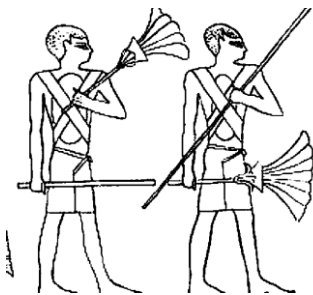


Fig.68 (Newberry 1895, pl. XIII).

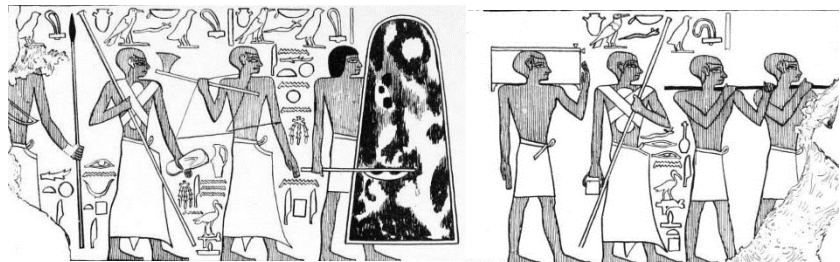


Fig. 69 (Newberry 1895, pl. XXIV)

Modern African warriors use this type of protection by using plates of leather or linen to protect their thorax and this type of breastplate shows development in the armor worn by the Egyptian army today (McDermot 2002, 50-51).

Linen bindings and wrappings were used to protect the ancient Egyptian troops before the development of hide, leather, or metal armor. These protective bindings appeared from the New Kingdom onwards. This can be backed up by the fact that such bindings are used even today by some African tribes' warriors as protection against blows from weaponry. The bindings are represented in ancient Egyptian art to cover the entire torso of the soldiers and extend up around their shoulders (McDermot 2002, 52). For example (fig.70), an ostrakon from the Amarna period, now in the Louvre Museum, No. E25340 represents soldiers from Akhenatn's army wearing a short linen cloth that covers the upper body and ends in a high abdominal belt, leaving the arms and waists exposed. Here duelists in the form of stick fighters protected themselves with thick strips of linen attached to a high band worn around the upper abdomen.



Fig.70 (<https://collections.louvre.fr/en/ark:/53355/cl010002263>)

Corselets are a type of clothing that covers the abdomen and fastens over the shoulder by using two straps and became common in depictions of Pharaohs and gods throughout the New Kingdom. During this period, leather corsets offered more substantial protection from the pounding and stabbing of sword cuts and spear thrusts (McDermot 2002, 52; Dean 2017, 67).

Scale armor appeared in Egypt during the Second Intermediate Period as they were introduced by the Hyksos. New Kingdom Egypt owes a great deal of its technological advances in warfare to the Hyksos. The scale armor is suggested to be a long suit covering the chest, the shoulders, the abdomen, and possibly the thighs of the wearer comprised of rows of scales (of either metal or rawhide) which were laced onto padded linen (Dean 2017, 68).

There are a few examples of scale armor, such as the Egyptian soldiers in the battle scenes at Medinet Habu (fig.63), also there are two sets of armor that appear in a presentation scene in Kenamun tomb at Thebes (fig.71). The ten scales (fig.72) were

discovered at Amenhotep III's palace, however, because they were buried in an enclosure wall, it is impossible to determine who may have worn them.

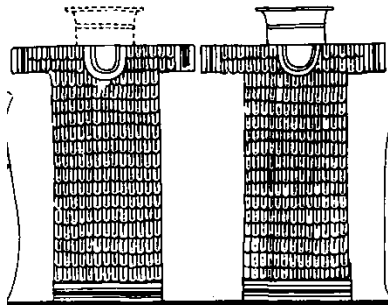


Fig. 71 (de G. Davies 1930, pl. XVI)



Fig.72(<https://www.metmuseum.org/art/collection/search/577187>)

### Portable shelters as protective equipment

Troops who tried to breach battery gates or walls were especially at risk. There were attempts to provide them with temporary shelters to keep them safe. A scene from Amenemhat's tomb (11<sup>th</sup> Dynasty) at Beni Hasan (fig.73), depicts two warriors approaching a stronghold while shielded by a movable roofed structure. The soldiers are carrying a long stick, which may have been an early battering weapon. (Brier & Hobbs 2008, 259).

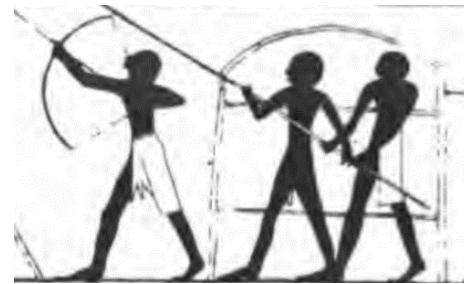


Fig.73 (Newberry 1893, Pl. XIV)

### Malachite as protective equipment


malachite in ancient Egyptian language means  *šsmt* (Hannig 1997, 837). There is evidence that the Ancient Egyptian warriors, most likely archers, utilized malachite to protect their eyes from the sun reflection. A kit bag owned by an archer of the Middle Kingdom (11<sup>th</sup> Dynasty) (Metropolitan Museum of Art, No. 31.3.47A) (fig.74) contains fragments of malachite and grease with a small pot, which may have been used for the preparation of eye paint, as the lumps of malachite were also ground up and mixed with grease and water to form a thick, blue-green paste, which was applied under the archers' eyes with their fingers. The malachite pastes also had the added benefit of functioning as a natural antiseptic. The malachite pastes also had the added property of acting as a natural disinfectant, and the mineral is a common ingredient in Egyptian ophthalmologic recipes (McDermott 2002, 49; Fields & Bull 2007, 16-18).



Fig.74 (McDermott 2002, fig. 52)

## Conclusion and Results

Through the study of the previously mentioned scenes of protective equipment in ancient Egyptian temples and private tombs, it was figured out that the ancient Egyptians used some protective tools to secure themselves from any danger. Therefore, from this study, the researcher found some important points such as:

- The protective equipment used by workers (such as boatmen, fishermen, herdsman, metal workers, cooking workers, winnowers, and hunters) during their work from the Old Kingdom onwards and used by soldiers in their battles from the First Intermediate period and Middle kingdom except for the shields which used from the predynastic period. Some protective tools are used by both like the leather loincloth, and the wristband.


- The researcher thought that the *s3*- shaped float and the *s3*- shaped mat or cushion are the same equipment which is used by workers. Sailors were hardly portrayed wearing *s3*- life preservers, and their relationship with cattle herders obscures their identities more. It may be claimed that because both jobs need crossing water, the life preserver was appropriate in both cases. So, the researcher agreed with the opinion about the nature and use of this object that it believed to be a bolster of papyrus worn by the marsh men as a swimming float.

- Protection from heat with stones appeared from the Old Kingdom while the use of the wooden sticks appeared from the New Kingdom. Heat protection was not always used in the depictions, which could imply that the artist overlooked the reference or that the metal workers dealt with these hot vessels.


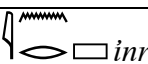
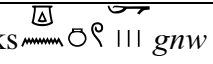
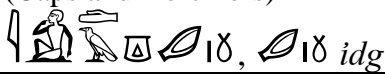

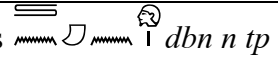


- Some equipment used in more than one type of protection like the papyrus reed which is used to protect the wearer from drowning and from the wind; the leather loincloth which is used to protect the genital area from injury and to protect the wearer who deals with water from the wetness, and the penis sheath which protects the wearer from the painful blow during the battle and protects the wearer who deals with rivers from diseases.

- Finally, for the ancient Egyptian names of several equipment, the researcher used linguistic dictionaries such as Hannig, R. 1997, *Großes Handwörterbuch Ägyptisch-Deutsch*, and the Wb online site <https://aew.bbaw.de/tla/index.html>. Some equipment can't find its names.

**The following table for the forms of protective equipment and their occupations:**

Protection from	Equipment	Occupation	Figure
Drowning	 <i>s3</i> float	-Sailor -boatman -Herdsman -Fishermen -Hunter - Fowler	Figs.1-8



Wind	 s3 mat	-Herdsman	Figs.1, 9-14
Heat	Stones  inr	-Smelting metal worker -Baker	Figs.16- 17
	Wooden sticks  gnw	Smelting metal workers	Figs.18-19
Wetness	Leather loincloth	-Sailors	Figs. 20-21
Sun burn	Leather loincloth	-Workers	Figs. 20, 22
Dust and dirt	Headgear (Caps and Kerchiefs)  id, id idg	- Workers	Fig. 29 – 37
Friction	-Gloves <i>hbs rmn</i>	-Hunter -Warrior	Figs.7, 38
	Shoulder belt	-Offering bearer -Fishermen -Workers	Figs. 39-41
Painful blow	Leather loincloth	-Soldiers	Figs. 20, 23
	Penis sheath	-Warrior -Archer	Figs. 24-27
	-Arm shield	-Single-stick fencers -Warriors	Figs. 42-43
	Face shield	-Single stick fencer - Warriors	Fig.44
	Fingers shield	-Single stick fencer - Warriors	Fig. 45
	Wrist band	-Archers	Figs. 46- 49
	Finger ring	Archery	Fig. 50
	Shields  krw	-Soldiers - Archers	Figs. 51- 57
	Helmets  dbn n tp	-Soldiers - Single stick fencer	Figs. 42, 58-65
	Body Armor  tryn	-Workers - Single stick fencer -Soldiers	Figs. 66- 72
Portable shelters	-Soldiers	Fig. 73	
Disease	Penis Sheath	-Workers	Fig. 28
Sun reflection	Malachite  šsmt	Archer	Fig. 74

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## أدوات الحماية في مناظر الحياة اليومية المصرية القديمة

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### الملخص

الفن المصري القديم مليء بمناظر الحياة اليومية التي تعطينا فكرة رائعة عن الحياة والحضارة المصرية القديمة. تهدف هذه الدراسة إلى التعرف على أدوات الحماية التي كان يستخدمها الأفراد في المهن المختلفة مثل التصنيع ، وصيد الأسماك والطيور، ممارسة الرياضة، وركوب العربات الحربية، وفي المعارك. وقد تم تصوير هذه المناظر على جدران المقابر الخاصة وبعض المعابد والعديد من النماذج الخشبية. ومن أدوات الحماية المختلفة عوامة من البردي التي كان يستخدمها الصياد والملاح في مناظر الإبحار أو الصيد، وكذلك حصيرة من البردي كان يستخدمها الرعاة لحماية أنفسهم من الرياح في الصحراء. في أثناء عملية الصهر، استخدم العمال أحيانًا مقابض حجرية أو أغصان لحماية أنفسهم من حرارة الوعاء. أما بالنسبة للملابس فقد استخدم المصري القديم العديد من الملابس لحمايته مثل المأزر، احزمة الكتف، والقفازات، وأساور المعصم، وأغماد القضيب، حامي الوجه، وحامي الأيدي، إلخ. على عكس التوقعات، هناك أدلة محدودة على أن المصريين القدماء استخدموا أدوات حماية لتأمين بيئة العمل الخاصة به، لذلك ستقوم هذه الدراسة بفحص هذه المناظر التي ظهرت بها الأدوات والملابس الواقية التي استخدمها المصريون القدماء أثناء عملهم.

*الكلمات الدالة: حماية، أدوات، عوامة، اساور المعصم، قفازات، غطاء رأس، الدروع*