

The Autobiography of Weni (1) An additional source on Egypt's nautical activities during the Old Kingdom

Mohammad Abd Al-Rahman Al-Sharkawy & Mohammad Mostafa Abd El-Maguid***

Abstract

Weni's autobiography has been the subject of numerous publications since 1864.¹ This autobiography recounts Weni's various actions and his service to three kings of the Sixth Dynasty (*ca.* 2345–2181 BCE).² Among these works are various nautical activities, whether in the Nile or in the Mediterranean Sea during the reigns of Pepi I and Merenre. Although he listed some details, Egyptologists did not analyze them at an adequate level. Perhaps because they are not specialized in the field of nautical archaeology. Therefore, this paper focuses on highlighting Weni's nautical activities and its importance as a source of knowledge at the end of the Old Kingdom. The research describes the five missions with navigational parts. It studies and analyzes in detail its various elements such as the types of ships, their names, sizes, types of wood used in building ships and their construction methods from the point of view of nautical archaeology. The importance of re-studying Weni's autobiography lies in trying to deal with this activity in an integrated manner between Egyptology and nautical archaeology. The research concluded the existence of major economic activities and great projects in the Sixth Dynasty and the end of the Old Kingdom, despite the old beliefs about the weakness of the State in that period. It also clarifies and interprets some of the ambiguities of the text by subjecting it to the science of nautical archeology.

Keywords: Old Kingdom - Sixth Dynasty - Weni's autobiography - missions - expedition - timber - quarries - Nile - Mediterranean - boats - wood.



(Map 1) Location of the places associated with Weni expeditions and the major Old Kingdom sites.

1. Introduction

Weni's autobiography³ provides a comprehensive account of his career, beginning under Teti (*ca.* 2345–2323 BEC) and extending through the reign of Pepi I (*ca.* 2321–2287 BEC), culminating in his service under Merenre⁴ (*ca.* 2287–2278 BEC). The themes of Weni's autobiography are well known, describing his involvement in royal construction, military campaigns in Asia and Nubia, canal digging, quarrying, political diplomacy, and even overseeing a matter of treason involving a queen. Throughout his account, Weni emphasizes his proficiency, thriftiness, and the high regard in which he was held by the kings he served.⁵

Weni also recorded five expeditions, one of which was marine and the remaining four were riverine. The riverine expeditions had religious purposes to equip Weni's tomb in Abydos and the pyramid complex of his king, Merenre, in Saqqara. Each of these expeditions had a specific task, with the exception of the third and fifth, which had multiple missions and destinations. The third expedition set out to Ibhath and Elephantine to procure two different types of stone, while the fifth sailed to the First Cataract to cut five canals in the rock and then proceeded to Elephantine to construct boats and to cut the stones. The sole marine expedition was of military nature, dedicated to suppress a revolt in southern Palestine during the reign of Pepi I. Weni used and constructed different types of boats to carry out these expeditions and witnessed their success.

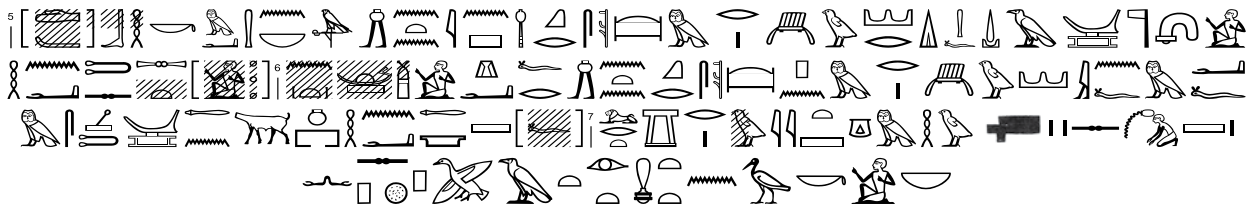
2. Methodology

The two authors re-studying Weni's autobiography through an integrated manner between Egyptology and nautical archaeology. They relied on the analytical descriptive approach, starting with the translation of paragraphs related to nautical activities and arranging them chronologically according to the reigns of the Kings who ordered the departure of these expeditions. Then they examine all the nautical topics, individually, starting from the type of wood used, types of boats and their names, sizes, and their methods of construction. Almost all references to Weni's autobiography were recorded. For comparison, relevant material was collected from the tombs' paintings and other materials. These include, for example, the autobiography of Senedjemib in his Mastaba at Giza (G 2370), the New Kingdom tomb of Paheri in Elkab, the complex frame discovered at El-Lisht, Palermo stone, the inscriptions of Sinai, and the scenes and inscriptions of boat building during the Old Kingdom.

3. Weni's nautical activities

3.1 The first expedition

Weni's nautical activities began at some point in the reign of King Pepi I, while he was preparing his own tomb.⁶ He narrated in his autobiography the successful request he made to Pepi I for a substantial gift of grave equipment, which included a fine sarcophagus made of Tura limestone.⁷ The sarcophagus arrived aboard a great barge, along with several architectural elements, accompanied by the royal seal-bearer and a group of sailors. The text reads:⁸



⁽⁵⁾ [d]bh.k(j) m-^c hm n(j) nb(=j) jn(j).t n(=j) jnr h_d qrs m R3-3w rd(j) hm=f d3(j) htmt(j)-ntr hn^c t(3)z.t⁽⁶⁾ n(j).t ^cpr h^cw hr ^c(.w)=f r jn(j).t n(=j) qrs pn m R3-3w jy(j).n=f m-^c=f m s3t ^c3 n(j) hn.w hn^c ^c3[=f]⁽⁷⁾ rw.t rwy.t gmh.wj z3t(.w) n zp p3.t(j) jr(j).t mrt.t n b3k nb.⁹

‘⁽⁵⁾ I requested from the Majesty of (my) lord that there be brought for me a sarcophagus of limestone from Tura. His majesty caused that a god’s treasurer to cross over (the river) with a crew⁽⁶⁾ of sailors under his command; to bring me this sarcophagus from Tura. It (the sarcophagus) came with him in a large s3t-boat of the (royal) Residence, together with its lid,⁽⁷⁾ a false door, a lintel, two door jambs, and an offering table. Never had the like been done for any servant’.¹⁰

3.2 The second expedition

Weni’s military maritime activity also began during the reign of Pepi I with an amphibious campaign somewhere off the coast of Syria–Palestine (?) at a place he calls “*sr.t tp-ghs*”.¹¹ In the battle, Weni reportedly trapped rebel tribesmen between a land-based army and a contingent of marines who were ferried to battle on *nmjw*-boats¹² as described in the following paragraphs:¹³



dd.t(j) wnt btk.w nht(.w) m h3s.tjw pn m sr.t tp-ghs d3(j).k(j)⁽³⁰⁾ m nmjw hn^c t(3)z.wt (j)ptn jr(j).n(=j) (w)d(j)(=j) r t3 m ph.w(j) q3w.w n(j.w) t(3)z.t⁽³¹⁾ hr mh.t(j) t3 hr(j)(.w)-s^c st gs-t(w)t n(j) mš^c pn m hr.t jy(j).n(=j) ndr(j).n(=j) sn mr qd=sn sm3(.w) btk nb jm=sn.¹⁴

‘It was said that there were strong rebels among these foreigners at the nose of Gazelle’s head, so I crossed over⁽³⁰⁾ in *nmjw*-boats with these troop. I made a landing in the back of the height of the mountain range,⁽³¹⁾ to the north of the land of the Sand-dwellers, while half of this army was on the road. I came and caught them all and slew every marauder among them’.¹⁵

3.3 The third expedition

During the reign of King Mernefer, Weni's nautical activities varied, they began with an expedition to Ibhat, where he quarried a sarcophagus and its lid, along with pyramidion for the king's pyramid. He also continued his expedition to Elephantine, where he retrieved a set of architectural elements for the King, as the following text narrates:¹⁶

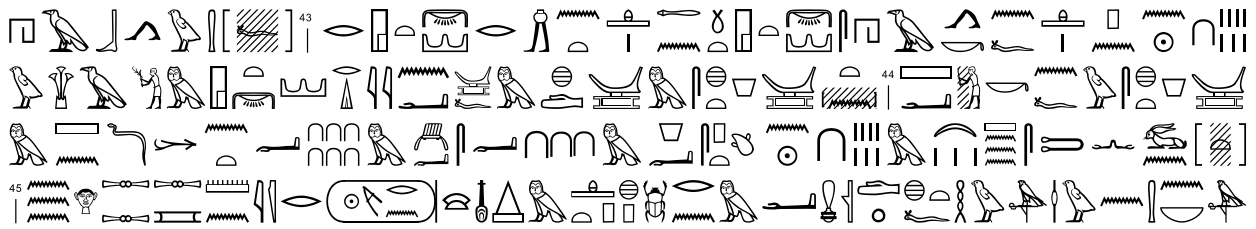


*h3b w(j) hm=f⁽³⁸⁾ r Jbh3t r jn(j).t nb-^cnh hn n(j) ^cnh.w hn^c 3=f hn^c bnbn.t htm.t špss.t n (mr)
H^c(j)-nfr-Mr(j)-n-R^c hnw.t(=j)⁽³⁹⁾ h3b w(j) hm=f r 3bw r jn(j).t m3t rwtj hn^c z3t(w)=s m3t 3.w
rwy.wt⁽⁴⁰⁾ r jn(j).t m3t sb3.w z3t(w).w n(j).w šzp.t hr.t n(j).t (mr) H^c(j)-nfr-Mr(j)-n-R^c hnw.t(=j)
hd(j).n(=j)⁽⁴¹⁾ m-^c (=j) r (mr) H^c(j)-nfr-Mr(j)-n-R^c m wsht 6 s3t 3 hmn.tj 3 n mš^c w^c(j) n-zp p3t(j)
jr(j).t Jbh3t⁽⁴²⁾ 3bw (j) n mš^c w^c(j) hr h3w nzw(.w)-bjtj(.w) nb(.w) wn (j)h.t nb(.t) wd.t.n hm=f wn
hpr.n mr qd mr wd.t.n nb(.t) hm=f jm.¹⁷*

‘His majesty sent me⁽³⁸⁾ to Ibhat to bring back the sarcophagus ‘Chest of the Living’ and its lid, as well as a costly and august pyramidion for the pyramid ‘Mernefer-appears-in-splendor,’ my mistress.⁽³⁹⁾ His Majesty sends me to Elephantine to bring back a granite false door with its base as well as granite portcullises: large slabs-rwy.wt⁽⁴⁰⁾ and to bring back the granite of the “doors”: blocks-z3t(w).w for blocking the pyramid ‘Mernefer-appears-in-splendor, my mistress’. I sailed north⁽⁴¹⁾ with (them) to the pyramid Mernefer-appears-in-splendor in six wsht-boats, three s3t-boats, and three hmn.tj-boats in a single expedition. Never had Ibhat and Elephantine⁽⁴³⁾ been visited in a single expedition under the reign of any kings of Upper and Lower Egypt. Thus, everything his majesty commanded was done entirely as his majesty commanded’.¹⁸

3.4 The fourth expedition

Weni's nautical activities expanded during the reign of Mernefer to include cutting and transportation of the alabaster from Hatnub quarries. This venture required the construction of an acacia wood barge to carry an offering table to Saqqara, where the pyramid complex of the King is located, as described in the following paragraph:¹⁹

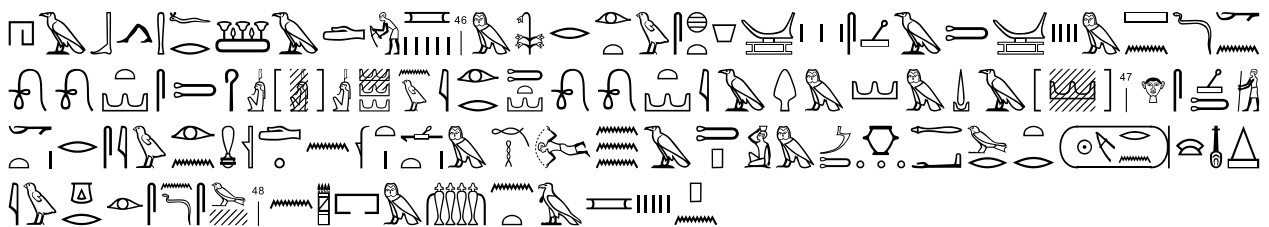


*h3b w(j) hm[=f]⁽⁴³⁾ r Hwt-nbw r jn(j).t htp.w ʕ3 n(j) šs.t Hwt-nbw s:h3(j).k(j) n=f htp.w pn n
hrw.w 17 wh3(.w) m Hwt-nbw rd.y n^c(j)=f m-hd(j)(=j) m wsh.t t[n]⁽⁴⁴⁾ š^c.k(j) n=f wsh.t m šnd n(j).t
mh 60 m 3w=s mh 30 m wsh=s sp(.tj).t(j) n hrw.w 17 m 3bd 3 šmw st n wn⁽⁴⁵⁾ mw hr t(3)z.w mjn(j)
(.j) r (mr) H^c(j)-nfr-Mr(j)-n-R^c m htp hpr.n m-^c(=j) m- qd hft hw wd.n hm n(j) nb(=j).²⁰*

‘[His] majesty send me⁽⁴³⁾ to Hatnub to bring a great offering table of alabaster of Hatnub. I brought this offering table down for him in 17 days. After it was quarried at Hatnub, I had it go downstream in this *wsh.t*-boat;⁽⁴⁴⁾ I had cut for it (the offering table) a *wsh.t*-boat of acacia wood of 60 cubits in length and 30 cubits in width. Assembled in 17 days²¹ in the third month of summer when there was no⁽⁴⁵⁾ water on the sandbanks. It landed at the Pyramid ‘Merenre-appears-in-splendor’ in safety. It came about through me entirely in accordance with the royal ordinance commanded by my Lord’.²²

3.5 The fifth expedition

The nautical activities of Weni concluded with the digging of five canals at the First Cataract, as well as the construction of three barges and four tow-boats of Nubian acacia wood. These vessels were utilized to transport large granite blocks for the construction of Merenre’s pyramid, as follows:²³



*h3b <wj> hm=f r š3d mr 5⁽⁴⁶⁾ m šm^c.w r jr(j).t wsh.t 3 s3t 4 m šnd n(j) W3w3.t st hq3.w h3s.wt
n(j).w Jr^t W3w3.t J3m Mđ3.t⁽⁴⁷⁾ hr st(3) h.t (j)r=s(n) jw jr(j).n(=j) mr-qd n rnp.t w^c(j).t mh(j)(.w)
3tp(.wj) m m3t ʕ3 wr.t r (mr) H^c(j)-nfr-Mr(j)-n-R^c jw gr jr(j)(.w) s:nds⁽⁴⁸⁾ n ʕh m hnt.jw 5 pn.²⁴*

‘His majesty sent (me) to excavate five canals⁽⁴⁶⁾ in Upper Egypt, and to build three *wsh.t*-boats and four *s3t*-boats of acacia wood of Wawat. Then the foreign chiefs of Irtjet, Wawat, Yam, and Medja⁽⁴⁷⁾ drew the timber for them. I did it all in one year. Floated, they were loaded with very large granite blocks for the pyramid ‘Mernere-appears-in-splendor.’ Indeed, I made a [saving]⁽⁴⁸⁾ for the palace with all these five canals’.²⁵

4. The discussion

4.1 Timber species

Although Weni did not specify the type of timber used in boat building in the first three expeditions, he explicitly stated that he utilized acacia wood in the construction of the boats used in the fourth and fifth ones

(Table. 1). It is probable that the absence of references to boat construction in the initial expeditions, or the type of timber used in other expeditions, was due to them already being present in shipyards, dockyards, ports, or similar locations, and being ready to set off as soon as the expedition was decided.

In Egypt, the available timber resources were probably larger than has been suggested in the past, especially when considering the usage and prevalence of acacia, sycamore and tamarisk. Although imported timber was obtainable, it was costly. The palace had authority over both local and foreign timber resources, but individual-level trade also occurred. Nonetheless, local woods were indispensable to the country's maritime trade, and the ancient boat builders' ability to successfully work with native materials and resources is evident at every site where transported stone, whether finished or unfinished, was conveyed by watercraft.²⁶

Acacia is one of the local wood trees that was already recorded in quantities in Middle and Upper Egypt as early as the Old Kingdom.²⁷ In Egypt, acacia trees grow in the Nile Valley, some desert *wadis*, and the oases of the Western Desert.²⁸ Acacia also grows in Nubia and in the central and Northern parts of the Sudan.²⁹ Herodotus referred to the use of acacia wood not only for boat building but also for masts. Theophrastus also stated that acacia was used for roofing and for the ribs of ships.³⁰ Evidence of its use by woodworkers can be traced throughout the Dynastic Period (Fig. 1). It was used not only in boatbuilding but also in the making of furniture and large construction projects.³¹ The survival of these forests is suggested until the 12th century CE.³²

“The most common species include Acacia arabica, A. nilotica, A. senegal, A. tortilis, A. albidal and A. seyal. The Acacia is one of the trees most commonly used for production of furniture



(Fig. 1) Facsimile from the tomb of Khnemhotep III (no. 3) at Beni Hasan depicting workers cutting down an acacia tree. P.E. Newberry, *Beni Hasan, Part I, ASE* (London, 1893), pl. 29.





in the Ancient Near East, as it is a hardy tree with sub-species adapted for survival in varying climatic conditions [...] Despite its availability throughout most of the Ancient Near East, Egypt's main source of Acacia was Nubia".³³

The anatomical description indicates that acacia is usually flat-topped tree with finely pinnate leaves. The flowers are yellow or white, clustered in small round heads or short spikes; and the fruits are flat or twisted pods. Its heartwood is red, hard and durable.³⁴ Theophrastus described the acacia as a tree with curving branches and brittle wood but noted that it could produce planks up to 6 m long.³⁵ However, "it is limited by the small size of its timber, as the bulk of the tree consists of thinner branches that form part of the tree's canopy".³⁶ Its hardness was valued for manufacturing tenons, as seen in Khufu's vessel, as well as tenons and pegs for coffins. The delivery of boatloads of white Acacia timber was recorded in the dockyards registers of the early Middle Kingdom. Modern records of traditional watercraft from Upper Egypt and Sudan suggest acacia to have remained a primary wood source for the region.³⁷

Ward classified the discovered boat timbers into two categories with regard to species identification and vessel purpose: Ceremonial and seafaring vessels built of imported cedar, and economically significant freighters and other working boats fashioned from the abundant local resources of tamarisk and acacia. This distinction arises from both the function of construction style and intended use. Working boats on the Nile could make use of lower quality and smaller planks as the Nile is calm and predictable. Additionally, the absence of shipworms in the Nile means that resinous wood is not essential. The use of cedar in the seafaring vessels may have been indispensable because of the presence of shipworms. Whereas using cedar in ceremonial vessels was a form of power parade, and building them out of a valuable foreign wood would have been a conspicuous demonstration.³⁸ Thus, it is quite possible that acacia wood was also used in the rest of Weni's Nilotic boats.

4.2 Boat types (Table. 1)

Boats occupied a major place in Weni's life over the course of his career, especially during the reigns of Pepi I and Merenre. In his expeditions, Weni mentioned different types of boats, namely: *s3t*, *nmjw*, *wsh.t*, and *hmn.tj*, respectively, which confirms that each type has specific features.

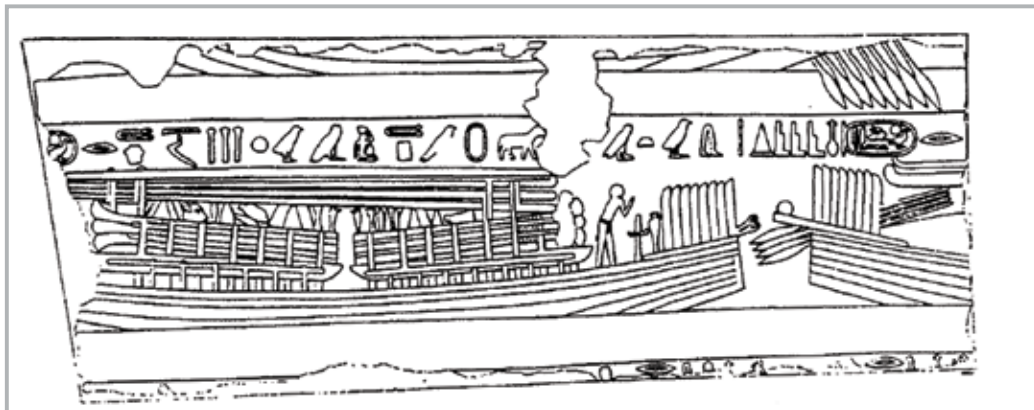
4.2.1 The term *s3t* was written either  or . It is related to the verb  *s3t* 'to pull, to drag, to bring'.³⁹ *S3t*-boat is described in the first expedition as  *s3t* ʿ3 n(j) *hn.w* 'a large *s3t*-boat of the (royal) Residence.' According to the autobiography, Weni used eight boats of this type: one in the first expedition, three in the third, and four in the fifth. All of which were used for stone transportation from quarries across the Nile. In the first expedition, only one *s3t*-boat transported Weni's funerary equipments from Tura to his tomb in Abydos. Whereas in the third and fifth expeditions, it formed part of a fleet along with boats of other types that transported the enormous funerary equipments to Merenre's pyramid complex. Such type confirms that it was used as a cargo boat,⁴⁰ as well as a barge, transport boat, and towboat.⁴¹

No. of expedition	First expedition	Second expedition	Third expedition			Fourth expedition	Fifth expedition	
Date	Pepi I	Pepi I	Mernere			Mernere	Mernere	
Expedition type	Riverine	Marine	Riverine			Riverine	Riverine	
Itinerary	Memphis - Tura - Abydos - Memphis	...? - Mount Carmel (?)	Memphis - Ibat - Elephantine - Saqqara - Memphis			Memphis - Hatnub - Saqqara - Memphis	Memphis - First Cataract - Elephantine - Saqqara	
The purpose	Religious	Military	Religious			Religious	Religious	
The activity	Cutting and transporting stones	Military campaign	Cutting and transporting stones			Cutting and transporting stone	First Cataract: Digging five canals	
							Elephantine: Boat building, cutting and transporting stones	
Boats tonnage	Sarcophagus, Lid, False-door, Lintel, Two door jambs, Offering table	Soldiers	Ibat: Sarcophagus, Lid, Pyramidion			Great offering table	Large granite blocks	
			Elephantine: Granite false door, Offering table, Granite doors, Lintels, Granite portals, Offering tables					
Boat type	<i>S3t</i>	<i>Nmjw</i>	<i>Wsh̄t</i>	<i>S3t</i>	<i>Hmnty</i>	<i>Wsh̄t</i>	<i>Wsh̄t</i>	<i>S3t</i>
No. of boats	one	(undefined)	6	3	3	one	3	4
Wood type	-	-	-			Acacia	Acacia	
Dimension of boats	-	-	-			30×60 cubits	-	

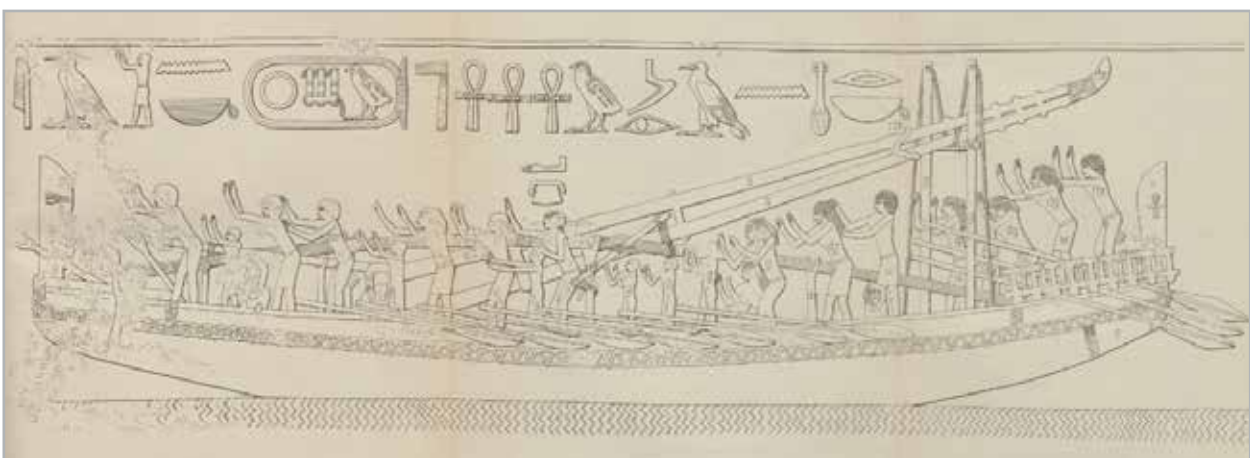
Table 1. Overview of Weni's nautical Expeditions.

(Pyramid complex called) The-Places-of-Unas-are-Beautiful”.⁵¹ A text portion from the scene indicates that these vessels were indeed *s3t*-boats too: “[x+3] [...] The arrival of this *s3t*-ships from Elephantine/with doors (?) (*3b[w]/sb3*) [...] [x+4] [...] a ship loaded with [...] [of granite (?)] [x+5] [column]s of 20 cubits and *z3*[...] [...] [x+6] [...] doors and *zp.wt* to [the (pyramid called) “Perfect are the Places of the son] of Re, [Unis] [...]”.⁵² According to Landström, the hulls have abruptly cut-off ends with forecastles and aftercastles. He also stated: “We will find more such posts on sea-going vessels. This was hardly a cargo vessel of any ordinary type, and it is possible that it was used only for sacral, perhaps royal transports”.⁵³

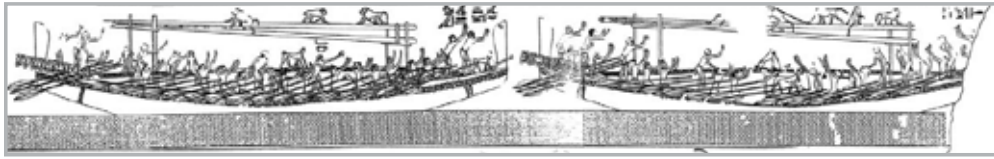
Some fragments of papyrus - most probably the remains of the archives concerning the construction of King Teti’s funerary complex - also record the work activities on the building site and the delivery of limestone from Tura by *s3t*-boats.⁵⁴ There are four other possible examples of *s3t*-boats dating to the late Old Kingdom. (1) The twelve Mediterranean boats from the reliefs of the mortuary temple of King Sahure (ca. 2487-2475 BC) at Abusir (Fig. 4).⁵⁵ (2) The remaining two boats from Sahure’s Red Sea fleet from the reliefs of his causeway at Abusir (Fig. 5).⁵⁶ (3) The remaining two boats from Unas’s Mediterranean fleet from the reliefs of his causeway at Saqqara (Fig. 6).⁵⁷ (4) The Sixth Dynasty boat model found at Saqqara tomb 240 of *K3-m-snw*, now in the Egyptian Museum (JE. 63184) (Fig. 7).⁵⁸



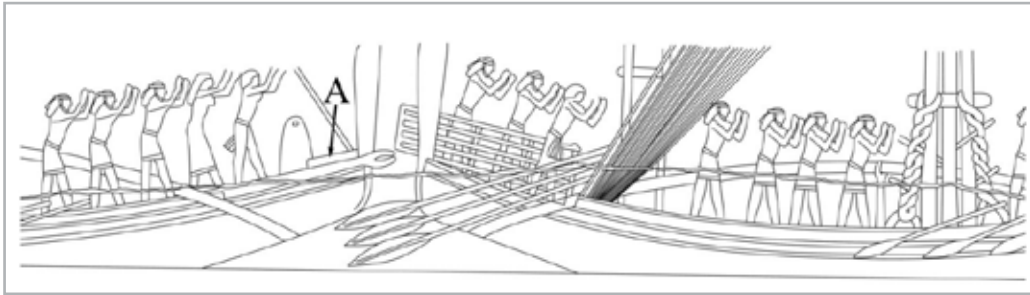
(Fig. 3) Facsimile from the causeway of Unas depicting the *s3t*-boat. Jones, *Boats*, 65, Fig. 59.



(Fig. 4) Facsimile from the mortuary temple of Sahure depicting the probable *s3t*-boat. Borchardt, *Die Grabdenkmal des Königs S3hu-re*. Band II: Die Wandbilder, pl. 13.



(Fig. 5) Facsimile from the causeway of Sahure depicting the probable *s3t*-boat. El Awady, *Abusir XVI: Sahure—The Pyramid Causeway*, pl. 5.







(Fig. 6) Facsimile from the causeway of Unas depicting the probable *s3t*-boat. Mark, *JAEl* 6:2, fig. 15.



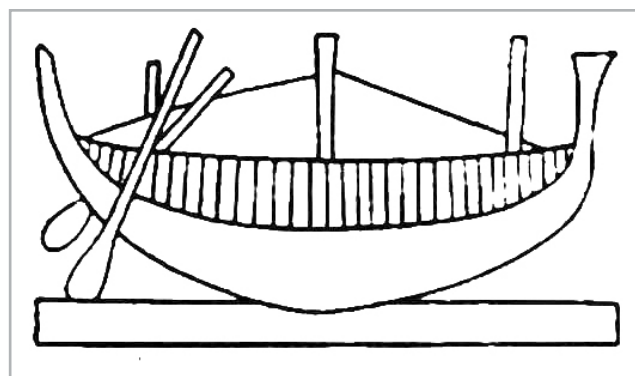
(Fig. 7) The Sixth Dynasty boat model of *K3-m-snw*. Landström, *Ships of the Pharaohs*, Fig. 194.

Unfortunately, the inscriptions accompanying the reliefs of Sahure expeditions does not disclose the name the Egyptian gave to these boats. There are also no inscriptions accompanying the boats of Unas. However, some scholars have associated these boats with the well-known *kbn.wt* ‘ships of Byblos’.⁵⁹ In fact, the boats of Sahure and Unas, in addition to the wooden model, have much in common with other Egyptian boats. However, what is most striking is that the morphological characteristics of examples described above shows similar features with the *s3t*-boats of Senedjemib and Unas, which transported the sarcophagus for the first and the granite columns for the second. All of these examples have a long horizontal hull, upright stem and sternposts, and zigzag line. Esposito added to this similarity the slightly rounded bow and stern, and the two vertical barriers, similar to a knife blade, at either extremity.⁶⁰

In fact, all the evidences associated with *s3t*-boat described above; Sahure, Senedjemib, Unas, Teti, Weni and others, point to three important issues: first, that *s3t*-boats were appropriate for both the River and the Sea at least during the earliest sea voyages, and second, that although there are no inscriptions or legends accompanying some of the scenes of these boats, the great similarity of structure, hull, bow, stern, and general appearance suggest that the Egyptians used *s3t*-boats also to sail to Punt across the Red Sea, and to Palestine and Syria across the Mediterranean. The third issue revolves around considering these boats as royal boats dedicated to transport sacred and religious equipment on the Nile, both for the king and his high officials, and as a part of the royal fleet used on sea voyages to Punt and the Levant in favor of the King.


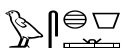


4.2.2 The term *nmiw* was written . It is derived from the verb ,  *nmiw* 'travel, traverse, cross'.⁶¹ *Nmiw*-boat appeared in Weni's second expedition without further details on its number, shape, or characteristics. It is worth mentioning that *nmiw*-boats are mentioned nowhere else in known Egyptian texts but Weni's autobiography.⁶² Goedicke suggested that the root from which the term is derived can mean *to follow a set path* or *to cross over*. Thus, these vessels were likely ferryboats rather than seagoing ships. This is also indicated, according to his opinion, by the determinative  that shows a shallow vessel without any superstructure. Consequently, he believed that these boats are similar in shape to the light rafts made of papyrus bundles that are frequently depicted in Old Kingdom reliefs as a means of transportation on the Delta canals.⁶³

This interpretation is probably to endorse his point of view that no military battles took place in Palestine, but that this campaign took place in the Delta. However, the expedition narrative suggests that this type of boat was likely intended for transporting soldiers in military activities across the sea. Therefore, Müller thought that the '*nmiw* ships' are those that are needed for long-distance 'seafaring' (*nmi*), i.e. boats for the high seas. Otherwise, this non-verifiable word seems to have the meaning of the later *mnš*-boat.⁶⁴ Boreux likewise believed that *nmiw* was a type of 'High Seas ships,' similar to the *mnšw* of later times (Fig. 8). He also proposed that it was a type of boat intended for sea expeditions.⁶⁵ Unfortunately, there are no indications or scenes of *nmiw*-boat, so that the similarity between it and the *mnšw*-boat cannot



(Fig. 8) Determinative of the *mnšw*-boat from the texts of Pentaour's poem in the Temple of Abydos. Ch. Kuentz, *La Bataille de Qadech*. Les textes ("Poème de Pentaour" et "Bulletin de Qadech") et les bas-reliefs, *MIFAO* 55 (1928), pl. 6 (7).

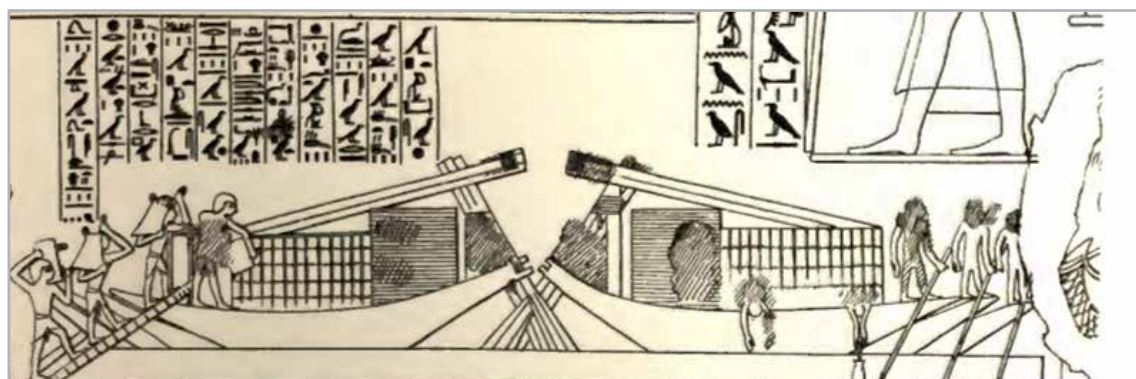
be confirmed. However, it is certain that *nmiw*-boats were sea vessels as noted by Müller,⁶⁶ Boreux,⁶⁷ Stracmans,⁶⁸ and Roccati,⁶⁹ where they were used to transport soldiers across the sea by Weni.

4.2.3 The term *wsh.t* was written . It is related to the adjective  *wsh* ‘broad and wide’.  also appears as a noun in the sense of ‘breadth’.⁷⁰  was used to transport stones and the funerary equipment of Merenre’s pyramid from several quarries including Ibbat, Elephantine, and Hatnub. It was the most common type of boat used by Weni in his expeditions, with six boats of this type used in the third expedition, one in the fourth, and three in the fifth. The *wsh.t*-boat led the fleet of the third expedition, which included *s3t* and *hmnty*-boats. In the fifth expedition, it led the fleet in conjunction with *s3t*-boats. In the fourth expedition, it solely transported the offering table from Hatnub.

The use of *wsh.t*-boats to transport large blocks from quarrying areas was confirmed by several pieces of evidence. The remains of the archives of King Teti’s funerary complex mentioned above record the work activities on the building site and the delivery of limestone from Tura by the *wsh.t*-boats along with *s3t*-boats.⁷¹ Sabni son of Pepi-nakht Heqaib mentioned in his tomb at Qubbet al-Hawa that King Pepi II sent him to Wawat to construct two *wsh.t*-boats as follows: “The majesty of my lord sent me to construct two great *wsh.t*-boats in Wawat so as to ship two great obelisks north to Heliopolis I constructed these two *wsh.t*-boats so that the majesty of my lord favored me for it”.⁷²

Egyptian sources indicate that the *wsh.t*-boat was also used to transport cattle, grain, wool, plants, and tribute. Additionally, it was among the temple boats designated for transporting supplies, materials, and gifts. It was also one of the royal gifts and endowments promised to the temples and gods. Furthermore, it was also used to facilitate some missions related to the king’s court and the transportation meant for officials.⁷³ So, it served as a cargo-boat,⁷⁴ as well as a boat for transporting goods, a mere barge, and divine barque,⁷⁵ on the Nile and its canals.⁷⁶


The scene depicting *wsh.t*-boats in the New Kingdom tomb of Paheri in Elkab is one of the well-known depictions of this type (Fig. 9). Tylor and Griffith described this scene as follows:⁷⁷

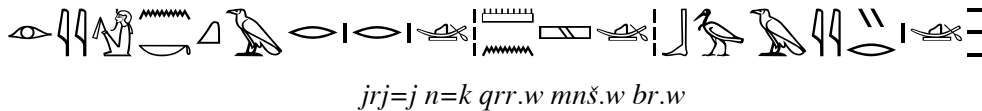


(Fig. 9) Facsimile from the tomb of *Paheri* depicting the *wsh.t*-boat.
Tylor and Griffith, *The Tomb of Paheri at El Kab*, pl. 3.







Regarding the relationship of *hmn.tj*-boats to *s3t*-boats, Weni’s narration specified that he used three separate types of boats, expressed successively without a conjunction, one after the other, as is customary in the Egyptian language as follows:



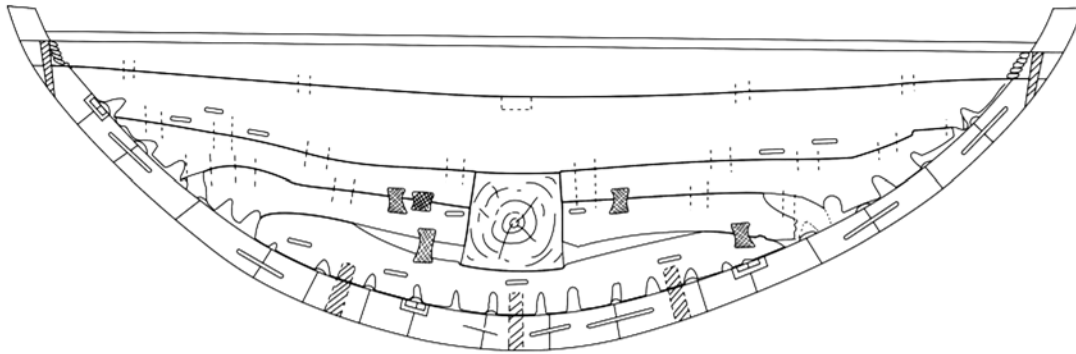
Also, writing the numbers of each type (6, 3, 3) after each determinative  confirms that each type is independent of the other. Perhaps the absence of the indirect genitive particle between *wsht*, *s3t*, and between the latter and *hmn.tj* supports that each noun represents a different type of boat, especially after adding the sign *n* at the end of the paragraph as a conjunction particle between the additive; *wsht 6 s3t 3 hmn.tj 3*, and the indirect genitive; *mšc w(j)*. As it is clear from a similar paragraph, the various types of ships that Ramesses III (ca. 1184–1153 BCE) ordered to be built are as follows:¹⁰¹



“I have made for you *qrr*-ships, *mnš*-ships and *br*-ships”.¹⁰²



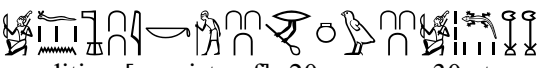

In addition,  *hmn.tj* was mentioned alone as a name to a separate type of boat within a list that includes other types of ships such as *skt*, *bz*, *s3bt*, and *mdty*, in addition to the names of some parts of ships, in a shipyard depicted in the Kai-em-anch Mastaba from the Sixth Dynasty in the Giza Necropolis.¹⁰³ It was also mentioned  in another inscription in Hatnub, dating back to the reign of King Pepi II, which deals with the transportation of 300 stones aboard two ships of this type specifically.¹⁰⁴  Continues to appear alone in one of the coffin texts,¹⁰⁵ and  in the inscription of Gebel Barkal stela of King Thutmose III (ca. 1479–1425 BCE), where it was mentioned alongside the type known as *hrcw*-boats.¹⁰⁶ It is also attested among the inscriptions of the statue of Amenhotep, son of Habu, at the Egyptian Museum CGC 583;  ,¹⁰⁷ and in an inscription of the scribe *Imn-msw* in Sinai, who worked under the leadership of Sobek-hotep (called Panehsi) in his mission dated in the year 36 of the reign of King Amenhotep III (ca. 1390–1352 BCE), where it appeared in the form  .¹⁰⁸ Thus, it seems clear that this term was not associated with the *s3t*-boat, which indicates that they are two different types.

The Fifth Dynasty Palermo stone mentions the construction of 60 *Sixteen* boats alongside the ‘Dwatawy’ barques during the reign of Sneferu (ca. 2613–2589 BCE) for an expedition to Nubia. One may argue that these boats were built of acacia wood on the bases of the later text dated to the reign of Thutmose III. Various suggestions have been put forward by Egyptologists for translating the *Eight* and the *Sixteen*, but Boreux’s translation and his followers is conclusive and convincing, particularly as a complex frame¹⁰⁹ like that of El-Lisht (Fig. 10) has likely been a characteristic part of a boat. This type of composite and complex frame proposed by Ward, is not known either by archaeology or by the iconography of ancient Egypt. In her thesis, Marlier described it as a real bulkhead filling the entire height of the cross section of the hull. The function of the bulkheads, in these ships, is to contribute, in a determining factor, to stiffen and reinforce the structure of the bottom, the sides and the extremities”.¹¹⁰ This type of frame and the cabin could also have



(Fig. 10) Restitution of the complex frame of El-Lisht. Ward, *Ancient Egyptian Ships and Boats*, 125.

the function of lowering, by their mass, the center of gravity of the type of ship, which would then carry its cargo on the deck and not in the hold. The complex frame modules as well as the other planks indicate a robust and rigid boat, which favors the hypothesis of the belonging of this part to one or more transport boats. We can think that the boats which brought the granite from Aswan to El-Lisht were dismantled and that their parts were used in the ramps and the roads. It is possible that El-Lisht pieces came from one or more boats of *Eight* or *Sixteen*. This transport of building material on the Nile was frequent and probably began in the Thinite Period. The building programs of every king and pharaoh required fleets of these sturdy and efficient cargo ships.¹¹¹

As for the term  $m\dot{s}3$ $w^c(j)$ in Weni's description of the third expedition, it aroused controversies. Erman translated it as "one warship".¹¹² While Maspero mistranslated it as "a man of war".¹¹³ Griffith, like Erman, translated it "one war-ship".¹¹⁴ A number of scholars such as Breasted,¹¹⁵ Junker,¹¹⁶ and Ward¹¹⁷ have also used Erman and Griffith's translation. On the other hand, Boreux,¹¹⁸ Stracmans,¹¹⁹ Gardiner,¹²⁰ Lichtheim,¹²¹ Roccati,¹²² Grimal,¹²³ Kloth,¹²⁴ Simpson,¹²⁵ and Strudwick¹²⁶ accepted the translation "one expedition". It seems evident that the translation 'warship' relies on the traditional translation of $m\dot{s}3$ in the sense 'army', 'military campaign', and 'troops'. However, it simply also means expedition or a member of an expedition. These last two meanings are attested several times in the mines and quarries inscriptions, such as the inscription no. 47 at Wadi Hammamat from the reign of Sesostri III (ca. 1874–1855 BCE), where one reads:  $r\dot{h}t$ nj $m\dot{s}^c$ jj $hn^c=j$... $t5$ $h3w.ty$ 30 $s\dot{s}n$... 10 $s\dot{s}n$... ty "The list of the expedition which went out with me: 5... 30 warriors, 10 scribes ..., ... scribes...".¹²⁷ The inscription no. 19 at Wadi Hammamat, dates to Amenemes III (ca. 1855-1808 BCE), is another example of similar meaning, as it reads  $m\dot{s}^c=f$ nj $hrt.y-ntr$ 20 $iky.w$ 30 $hn.w$ 30 $m\dot{s}^c$ c3 2000 "His expedition [consists of]: 20 masons, 30 stonecutters, and 30 boatmen. Total of expedition 2000".¹²⁸ The sign  seems to have also been used as a determinative of the term mSa to refer to a military campaign or an expedition.¹²⁹

4.3 Boat's dimensions

Although Weni mentioned the different types of boats he used or built during his expeditions, their function, and the types of wood that they were made of, most of the time, he did not mention the dimensions of any of these boats except once (Table 1). He said that during his fourth expedition, he constructed a boat in Hatnub to transport the king's offering table. It measures 60 cubits long and 30 cubits wide or around 30 by 15 m roughly. We consider that all the mentioned travel and cargo boats were big sized because they were intended to transport troops or large blocks of stone. River or marine expeditions required more stable boats, and consequently, heavier, also more solid and of more considerable dimensions, in which, one could transport, with complete safety, heavier cargoes and larger crews.¹³⁰

The Palermo Stone attests the construction of a boat of the 'Dwatawy' type hundred cubits long, during the reign of King Sneferu.¹³¹ We do not find in the texts of the Old Kingdom any other mention for the dimensions of boats, but the tale of the shipwrecked sailor from the Middle Kingdom comes to affirm the existence of big sized boats when it mentioned the dimensions of his shipwrecked boat, which is 120 cubits long and 40 wide.¹³² This lack of information stimulates checking the pictorial evidence to fill the gap in this regard.

According to the boat's type and period, the length of a boat represents from three to twelve times the height of a man. By calculating the latter at the rate of 1.65 m to 1.70 m, a boat would measure from 5 m to 20 meters approximately. In general, the cargo boats were smaller than the travel boats, and both became greater and greater in length as one leaves the Fourth Dynasty.¹³³ Casson calculates *ca.* 30 m for the seagoing travel ships of Sahure.¹³⁴

As for the width of all these boats, one can only conjecture it by analogy with the models that were found in different tombs, although we believe that the manufacturer took care when making these models that they imitate the truth. However, the boat models published by Reisner in 1913 provide different ratios (length to width ratios) ranging from a twelfth to a third of the length.¹³⁵ However, it was always noted that the working ship models are those with bigger values 4:1 or 3:1. Boreux noted that "It is these last proportions, which appear so excessive at first sight, that were to be the most usual. They are explained by the reason that, the Egyptian boats being able to have only a very weak draught, it was indeed necessary to increase as much as possible their width, if one wanted to give them a sufficient stability".¹³⁶

As for direct evidence, it did not provide much information regarding the dimensions of cargo ships. More than 25 ships and boats were discovered in Egypt, complete or in fragments, assembled or disassembled. Most of them were ceremonial water crafts, whether they were funerary or religious, and a few of them were working or cargo ships. We did not find cargo boats except in Ayn Soukhna on the Red Sea coast,¹³⁷ or parts of boats in Wadi Gawasis on the same coast¹³⁸ and in El-Lisht. Of course, it is difficult to know the proportions of the ship from the fragments that were found, and therefore these elements must be excluded when trying to determine the proportions of ships in ancient Egypt. Complete ships and boats that were found on the edge of the desert near the Nile (Abydos, Abu Rawash, Khufu, and Dahshur) provide length-to-width ratios of more than five to one until they reach nine to one, except for Dahshur,

which records a ratio of approximately 4:1. These proportions are acceptable due to the function of these boats that participate in the funeral procession. In which the ancient Egyptian cares more about the shape than the vitality of the ship, its solidity, and its loading capabilities, as these boats carry light weights, whether they are coffins, funerary furniture, or mourners. The shipwright was not afraid to build boats of such proportions because they do not face the dangers of the sea for the travel or the great burden for the Nile working boats.

Noticeably, the length to width ratio mentioned by Weni “60:30 or 2:1” is somehow weird and unfamiliar. However, the name given to this very special sort of barge (*wsh.t* means wide) proves that they were distinguished by their exceptional width, of all other Egyptian craft.

4.4 Boat building

Weni referred to boat building in only two expeditions: the fourth and the fifth. He used four verbs to describe the process: *šc*, *spt*, *ir(j)*, and *st3/sti*, which translate to ‘cut’, ‘assemble’, ‘build’, and ‘draw’ respectively. He abstained from providing any specific details regarding the stages of boat building, and we have to infer all the details implicitly, starting from choosing the forest, to cutting timbers, transporting, preparing, shaping, carving, building, assembling, and tying, etc. Although this may seem normal given the nature of the autobiographies, what is striking is the similarity of Weni’s approach to the scenes and inscriptions of boat building during the Old Kingdom. His concise and rapid style reflects a general tradition during this period that relied on implementing a theme and expressing its success with the fewest words and scenes, without delving into the details.

Despite their importance as a rich source of information about the techniques of boat building, these scenes offer only a holistic picture that is thematically, spatially and temporally intertwined in a highly expressive way. This approach is reflected in the brevity of the scenes and inscriptions, which, while highly detailed in their expression, do not delve into the minutiae of the building process. This is evident in the statement from the fourth expedition in which Weni says, ‘I had cut for it (the offering table) a *wsh.t*-boat of acacia wood of 60 cubits in length and 30 cubits in width. Assembled in 17 days.’ Similarly, in the fifth expedition, he says, ‘Then the foreign chiefs of Irtjet, Wawat, Yam, and Medja drew the timber for them. I did it all in one year. Floated, they were loaded with very large granite blocks’.

The depictions of boat building can help contextualize Weni’s statements. These scenes show boats that are fully built or in the final stages of construction, although they often depict a combination of several construction stages. This overlap is demonstrated by the presence of a group of workers falling trees, bringing beams or collecting papyrus, and carrying it on their backs to the construction site. There, the carpenters are shown working on a completed boat¹³⁹ (figs. 11–12). It is worth noting that dropping from the scenes the successive stages of work, and instead focused on the raw material and the final product, was not exclusive on boat building, but the practice also attested in a group of other crafts and industries.¹⁴⁰

This phenomenon is attributed to the nature and function of scenes and inscriptions in tombs, and their role in serving the deceased in the afterlife. The artists first depict the items that the deceased would need in the afterlife, such as furniture, ornaments, boats, and so on. They then depict the workers and raw materials

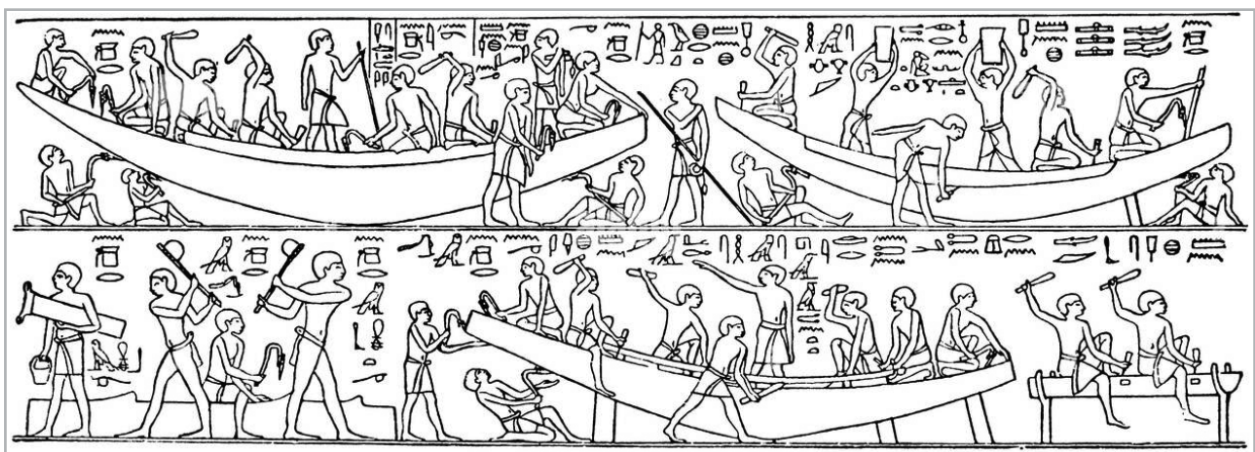
necessary for other manufacturing processes. These products are then assembled into scenes, creating a landscape in which the tomb owner's servants carry out their work. Thus, it is quite logical to exclude any unfinished product that does not directly benefit the deceased; as a result, boats appeared in almost all tombs as if ready to fulfill the call of the deceased.

Furthermore, the space available for artists to create the themes was generally limited, making it difficult to represent all the processes of boat building. Each worker symbolized, sometimes alone, an important series of tasks. This concept allowed Egyptian artists to treat their subject with great skill by arranging a series of independent scenes revolving around one subject with its different sides, regardless of place and time, without worrying about their logical sequence.¹⁴¹

A comparison between autobiographies and scenes of daily life reveals a striking similarity, particularly since both emerged in the context of private tombs. In recording the essential aspects of their lives, the tomb owner used narration and declaration to perpetuate their legacy. Autobiographies often included aspects of the reliefs of daily life as an integral part of the tomb owner's duties during their life and their needs in the hereafter.¹⁴²



(Fig. 11) Scene of boat building from the Tomb of Rahotep. Petrie, *Medum*, 23 and pl. XI.



(Fig. 12) Facsimile from the Tomb of Ty depicting the boat building. Wild, *Le Tombeau de Ti*, pl. CXXIX.

It can be argued that Weni's use of language was influenced by the same limitations faced by the artists who created the scenes in the tombs of the Old Kingdom. This suggests that both autobiographies and depictions were constrained by similar religious and practical conventions. However, the artistry of the language used in the autobiography should not be disregarded. This is exemplified by the poetic interlude 'This expedition returned in peace', which appears seven times after each section detailing a specific accomplishment.¹⁴³ This repetition could even be seen as a triumphant song sung by the military campaign, as noted by Simpson.¹⁴⁴

One cannot deny the principle of 'rhetoric by omission' in such a magnificent poetic style, which applies not only to writing but also to imagery. Roccati describes Weni's style and skill as follows:

*"L'habileté et le rythme qui s'en dégagent font de cette composition un monument littéraire unique. Les répétitions étudiées et certaines tournures sont dues à un goût raffiné et à l'imitation de modèles d'expression que l'on connaît surtout par les Textes des Pyramides. La valeur unique d'une telle pièce, même par rapport aux époques postérieures, tient aussi à son caractère de document historique véritable, et met en évidence la personnalité de son auteur".*¹⁴⁵

Conclusion

Weni's autobiography is a significant source of information that sheds light on Egypt's maritime legacy during the Old Kingdom, particularly the Sixth Dynasty. The text reveals that two nautical expeditions occurred during the reign of King Pepi I, and three more were conducted during the reign of King Merenre. While one of these was a marine mission aimed at crushing rebels, the other four were riverine expeditions that brought funerary equipment not only to the Merenre's pyramid complex in Saqqara but also to Weni's own tomb in Abydos. Weni's maritime accounts are characterized by their richness and vitality, covering details such as the history of the expeditions, their destinations and activities, the types of boats used, the number of vessels involved, and their tonnage. Weni's narrations also stand out for mentioning the type of timber used in boat building in some cases, as well as the dimensions of a particular type of boat in one instance. Although Weni did not delve deeply into the boat-building process, and used some terms that were shrouded in ambiguity, his accounts provide some information that clearly illustrate the various operations related to the nautical activity. These comprise: determining the mission purpose including cargo type and destination; building the boat starting with selecting the type of wood and cutting it, shaping it and assembling the boats, and finally sailing. These aspects imbue Weni's autobiography with great importance among the sources that deal with Egypt's maritime activity during the Old Kingdom.

Acknowledgements


We are very much obliged to El-Sayed Mahfouz, Professor of Ancient History and Archaeology, Kuwait University, who drew our attention to the importance of Weni's maritime activities.

Endnotes

- * Professor of Egyptology, Department of Egyptology, Faculty of Arts, Menofia University.
- ** Senior Archaeologist - Central department for Underwater Antiquities - Ministry of Tourism & Antiquities.
- 1 A. Mariette, *Notice des principaux monuments exposés dans les galeries provisoires du musée d'Antiquités égyptiennes de S. A. le vice-roi, à Boulaq* (Alexandrie, 1864), 286-287.
 - 2 As for the dates of the kings from now on see I. Shaw and P. Nicholson, *The British Museum Dictionary of Ancient Egypt* (Cairo, 2002), 310.
 - 3 Weni's autobiography was carved on a monolithic slab of limestone that once formed one wall of the single-room tomb chapel at the Middle Cemetery in Abydos. It is now housed in the Cairo Museum, specifically under No. CGC 1435, and measures approximately 2.70 meters in width, 1.10 meters in height, and almost half-a-meter in thickness. For other details, see for example: Mariette, *Notice des principaux monuments*, 286-287; *Id.*, *Catalogue général des Monuments d'Abydos découverts pendant les fouilles de cette ville* (Paris, 1880), 84, no. 522; A. Erman, 'Commentar zur Inschrift des Una' *ZÄS* 20 (1882), 1-29; M.G. Maspero, *Le Musée égyptien*, I (Cairo, 1890-1900), 25-26 and pls. XXVII-XXVIII; *BAR* I, §§ 291-294, 306-315, 319-324; P. Tresson, *L'Inscription d'Ouni*, *BdÉ* 8 (Cairo, 1919), *passim*; L. Borchardt, *Catalogue Général des Antiquités Égyptiennes du Musée du Caire. Nos 1295-1808. Denkmäler des Alten Reiches (Ausser sen Statuen)*. Teil 1 (Berlin, 1937), 1435, 115-119 and pl. 29-30; M. Lichtheim, *Ancient Egyptian Literature, A Book of Readings, Volume I: The Old and Middle Kingdoms* (London, 1973), 18-23; P. Piacentini, 'Annotazioni archeologiche e storiche all'autobiografia di Uni,' *Aegyptus* 67, No. ½ (1987), 3-12; E. Brovarski, 'Abydos in the Old Kingdom and First Intermediate Period, Part I' In C. Berger, G. Clerc, and N. Grimal (eds), *Hommages à Jean Leclant*, Vol. 1, *BdÉ* 106/1 (Cairo, 1994), 113-115; M. el-Khadragy, 'Some paleographic features of Weni's biography,' *GottMisz* 188 (2002), 61-67; J. Richards, 'Text and Context in late Old Kingdom Egypt: The Archaeology and Historiography of Weni the Elder,' *JARCE* 39 (2002), 75-102; N. Kloth, *Die (auto-) biographischen Inschriften des ägyptischen Alten Reiches: Untersuchungen zu Phraseologie und Entwicklung*, *SAK: Beihefte* 8 (Hamburg, 2002), 10-12 (20), 181-183, 194, 200-202, 214; W. K. Simpson (ed.), *The Literature of Ancient Egypt: An anthology of Stories, Instructions, Stelae, Autobiographies, and Poetry*, 3rd edition (New Haven, 2003), 402-407; N.C. Strudwick, *Texts from the Pyramid Age, SBL Writings from the Ancient World* 16 (Atlanta, 2005), 352-357 (256); V. Chauvet, 'Between a Tomb and a Hard Place: Tomb Inscriptions as a Source of Historical Information,' *JARCE* 49 (2013), 64-66. It is noteworthy that in 2012, in the area of the Nobles Tombs adjacent to the pyramid of Pepi I, at three meters above the Old Kingdom level, a group of blocks inscribed with a copy of the autobiography of Weni was found. It seems that it was moved from a nearby place to be reused in new tombs from a later era. The terms of the autobiography, which describe the hierarchical rise of Weni and several episodes of his life, are too similar in the two versions. However, the two texts are not identical. We find passages added or omitted in each of the texts. For more details, see Ph. Collombert, 'Une nouvelle version de l'autobiographie d'Ouni', in R. Legros (ed.), *Cinquante ans d'éternité. Jubilé de la Mission archéologique française de Saqqâra*, *BiEtud* 162 (Cairo, 2015), 145-157.
 - 4 *BARI*, § 291; *PMV*, 72; A. Roccati', in *LÄVI* (1986), 852, s. v. "Uni"; Kloth, *Die (auto-) biographischen Inschriften des ägyptischen Alten Reiches*, 11.
 - 5 Richards, *JARCE* 39, 78.
 - 6 G.E. Kadish, 'Weni', in D.B. Redford (ed.), *The Oxford Encyclopedia of Ancient Egypt*, Vol. 1 (Cairo, 2001), 496.
 - 7 Richards, *JARCE* 39, 78.
 - 8 *Urk* I, 99, 10-100, 1. Compare: A. Mariette, *Abydos: Description des fouilles exécutées sur l'emplacement de cette ville. Tome deuxième* (Paris, 1880), pl. 44 (6-8); Erman, *ZÄS* 20, 6-7; H. Brugsch, *Thesaurus Inscriptionum Aegyptiacarum. Altaegyptische Inschriften* (Leipzig, 1891), 1471 (2-7); Tresson, *L'Inscription d'Ouni*, 2 (6-9).
 - 9 Kloth, *Die (auto-) biographischen Inschriften des ägyptischen Alten Reiches*, 214.
 - 10 For the variant translations, see for example: Mariette, *Notice des principaux monuments*, 286; Erman, *ZÄS* 20, 6-7; G. Maspero, 'Inscription of Uni (of the sixth Dynasty)', in A.H. Sayce (ed.), *Records of the Past. Being English Translations of the ancient monuments of Egypt and Western Asia*,

- Pyramid Age, 356; Esposito, In Manzo, *et al.*, (eds.), *The Red Sea and the Persian Gulf*, 39.
- 19 *Urk I*, 107, 16-108, 10. Compare: E. de Rougé, Recherches sur les monuments qu'on peut attribuer aux six premières dynasties de Manéthon, *MAIBL* 25 (Paris, 1866), 139-140; Mariette, *Abydos*, pl. 45 (43-46); Erman, *ZÄS* 20, 24-25; Brugsch, *Altaegyptische Inschriften*, 1476, (7)-1477, (1); Tresson, *L'Inscription d'Ouni*, 7 (44-47); T. Hofmann, 'Die Autobiographie des Uni (𓆎𓆏𓆑) von Abydos,' *LingAeg* 10 (2002), 228 (43-46).
- 20 Kloth, *Die (auto-) biographischen Inschriften des ägyptischen Alten Reiches*, 183, 202.
- 21 In the future, we will discuss the construction of this boat in a separate article entitled: Weni's barge of Hatnub in light of the new studies of nautical archaeology - Did Weni build his barge in 17 days?
- 22 For the variant translations, see for example: Mariette, *Notice des principaux monuments*, 287; Erman, *ZÄS* 20, 24-25, 29; Maspero, *Inscription of Uni*, 9; Griffith, *Hieroglyphic Studies, etc.*, 17-18; *BAR I*, § 323; Boreux, *Études de nautique égyptienne*, 128-130; Stracmans, *La carrière du Gouverneur de la Haute Égypte Ouni VIe Dynastie*, 514; S. Clarke and R. Engelbach, *Ancient Egyptian Masonry: The building craft* (London, 1930), 34; Gardiner, *Egypt of the Pharaohs*, 97; B. Landström, *Ships of the Pharaohs* (New York, 1970), 62; Lichtheim, *Ancient Egyptian Literature*, 21; J. Osing, 'Zur Syntax der Biographie des Wnj', *Orientalia*, Nova Series, 46, No. 2 (1977), 169, 172, 173-174; Roccati, *La littérature historique sous l'Ancien Empire égyptien*, 196-197 § 187; Grimal, *Histoire de l'Égypte ancienne*, 167; Ward, *Ancient Egyptian Ships and Boats*, 9; Hofmann, *LingAeg* 10, 228, 232; Kloth, *Die (auto) biographischen Inschriften des ägyptischen Alten Reiches*, 183, 202; Simpson (ed.), *The Literature of Ancient Egypt*, 406; Strudwick, *Texts from the Pyramid Age*, 356; Esposito, in Manzo, *et al.*, (eds.), *The Red Sea and the Persian Gulf*, 40-41; F. Servajean, 'Construire un bateau à l'orée des grands fourrés de papyrus. À propos du verbe 𓆎𓆏𓆑 spj, assembler (une embarcation)', *ENiM* 11 (2018), 208.
- 23 *Urk I*, 108, 13-109, 7. Compare: Mariette, *Abydos*, pl. 45 (46-49); Erman, *ZÄS* 20, 25-26; Brugsch, *Altaegyptische Inschriften*, 1477 (1-6); Tresson, *L'Inscription d'Ouni*, 7 (47-49).
- 24 Kloth, *Die (auto-) biographischen Inschriften des ägyptischen Alten Reiches*, 181.
- 25 For the variant translations, see for example: Erman, *ZÄS* 20, 25-26; Maspero, *Inscription of Uni*, 9-10; Griffith, *Hieroglyphic Studies, etc.*, 18; *BAR I*, § 324; Boreux, *Études de nautique égyptienne*, 130; Stracmans, *La carrière du Gouverneur de la Haute Égypte Ouni VIe Dynastie*, 514; Gardiner, *Egypt of the Pharaohs*, 97; Lichtheim, *Ancient Egyptian Literature*, 21-22; Roccati, *La littérature historique sous l'Ancien Empire égyptien*, 197 § 188; Grimal, *Histoire de l'Égypte ancienne*, 167; Ward, *Ancient Egyptian Ships and Boats*, 9; Kloth, *Die (auto-) biographischen Inschriften des ägyptischen Alten Reiches*, 181-182; Simpson (ed.), *The Literature of Ancient Egypt*, 407; Strudwick, *Texts from the Pyramid Age*, 356-357; Esposito, In Manzo, *et al.*, (eds.), *The Red Sea and the Persian Gulf*, 40.
- 26 Ward, *Ancient Egyptian ships and boats*, 24.
- 27 G. Killen, *Egyptian Woodworking and Furniture. Shire Egyptology Series*, No. 21 (Buckinghamshire, 1994), 7.
- 28 R. Gale, P. Gasson, N. Hepper and G. Killen, 'Wood', in P.T. Nicholson and I. Shaw (eds.), *Ancient Egyptian Materials and Technology* (Cambridge, 2000), 335; F. Deglin, 'Wood exploitation in ancient Egypt: Where, who and how?', In H. Abd El Gawad, *et al.*, (eds.), *Current Research in Egyptology 2011. Proceedings of the Twelfth Annual Symposium*. Durham University, United Kingdom, March 2011, 85-87, and Figs. 1-2; K.A. Bard and R. Fattovich, *Seafaring Expeditions to Punt in the Middle Kingdom. Excavations at Mersa/Wadi Gawasis, Egypt*. In E. Frahm *et al.*, (eds.), *Culture and History of the Ancient Near East* 96 (Brill, 2018), 95-96.
- 29 A.B. Medani, M.A.E. Samia and E.A. Ahmed, 'Toxicity of *Acacia Nilotica* (Garad) to Nubian Goats', *Journal of Toxicology* 1/2 (2016), 1.
- 30 D.M. Dixon, 'Timber in Ancient Egypt', *The Commonwealth Forestry Review*, Vol. 53, No. 3 (157) (September 1974), 205.
- 31 Killen, *Egyptian Woodworking and Furniture*, 7.
- 32 Ward, *Ancient Egyptian ships and boats*, 15.
- 33 A.M. Pepler-Harcombe, *Ancient Egyptian Furniture in context: From ancient production, preservation to modern day reconstruction and conservation*, (MA University of South Africa, 2011), 29. The Nile acacia (*A. nilotica*) was referred to as *Snd.t*. See R.

- Germer, 'Flora', in D.B. Redford (ed.), *The Oxford Encyclopedia of Ancient Egypt*, Vol. 1 (Cairo, 2001), 536.
- 34 Gale, Gasson, Hepper, and Killen, In Nicholson and Shaw, (eds.), *Ancient Egyptian Materials and Technology*, 335.
- 35 See Ward, *Ancient Egyptian ships and boats*, 15.
- 36 Pepler-Harcombe, *Ancient Egyptian Furniture*, 29.
- 37 Ward, *Ancient Egyptian ships and boats*, 15-16.
- 38 P.L. Creasman, *Extracting Cultural Information from Ship Timber*, (PhD Diss., Texas A&M University, 2010), 95.
- 39 Wb IV, 351, 7-12; R.O. Faulkner, *A Concise Dictionary of Middle Egyptian* (Oxford, 1986), 255; A.D. Espinel, 'Around the Columns. Analysis of a Relief from the Causeway of Unis Mortuary Temple,' *BIFAO* 107 (2007), 101 no. a; Esposito, in Manzo, *et al.*, (eds.), *The Red Sea and the Persian Gulf*, 37.
- 40 Vinson, *Egyptian boats and ships*, 25.
- 41 D. Jones, *A Glossary of Ancient Egyptian Nautical Titles and Terms* (New York, 1988), 143 [58].
- 42 See for example: *BAR* I, §§ 275-276; Boreux, *Études de nautique égyptienne*, 126, 489-490; *Urk* I, 65, 15; Roccati, *La littérature historique sous l'Ancien Empire égyptien*, § 97; E. Brovarski, The Senedjemib Complex, Part I. The Mastabas of Senedjemib Inti (G 2370), Khnumenti (G 2374), and Senedjemib Mehi (G 2378). Giza Mastabas 7 (Boston, 2001), 108; Strudwick, *Texts from the Pyramid Age*, 315; Esposito, in Manzo, *et al.*, (eds.), *The Red Sea and the Persian Gulf*, 37.
- 43 Landström, *Ships of the Pharaohs*, 62; Strudwick, *Texts from the Pyramid Age*, 315.
- 44 *LD* II, 76c; Brovarski, *The Senedjemib Complex, Part I*, Fig. 21-23.
- 45 Boreux, *Études de nautique égyptienne*, 126, 138, 489-490.
- 46 *BAR* I, § 276; Jones, *Nautical Titles and terms*, 58 [41]; 99 [220]; 61 [52]; 49 [4].
- 47 Landström, *Ships of the Pharaohs*, 62.
- 48 Vinson, *Egyptian boats and ships*, 25-26.
- 49 Esposito, in Manzo, *et al.*, (eds.), *The Red Sea and the Persian Gulf*, 37.
- 50 D. Jones, *Boats. Egyptian Bookshelf*)London, 1995(, 65.
- 51 Landström, *Ships of the Pharaohs*, 62.
- 52 Espinel, *BIFAO* 107, 101.
- 53 Landström, *Ships of the Pharaohs*, 62.
- 54 Esposito, In Manzo, *et al.*, (eds.), *The Red Sea and the Persian Gulf*, 40.
- 55 L. Borchardt, *Die Grabdenkmal des Königs ♂'AHurea. Band II: Die Wandbilder* (Leipzig, 1913), pls. 11-13; Landström, *Ships of the Pharaohs*, 63-65, Figs. 187-191; Strudwick, *Texts from the Pyramid Age*, 85; Ch. Ward, 'Seafaring in Ancient Egypt' In E. El Saeed, *et al.*, (eds.), *Studies on the Red Sea in memory of Prof. Abdel Monem el Halim el Sayed, Abgadiyat* 11 (2016), 151.
- 56 T. El Awady, 'King Sahura with the precious trees from Punt in a unique scene,' In M. Bárta (ed.), *The Old Kingdom Art and Archaeology. Proceedings of the Conference Held in Prague May 31 – June 4, 2004* (Prague, 2006), 37-44; K.A. Bard and R. Fattovich (eds.), *Harbor of the Pharaohs to the Land of Punt, Archaeological Investigations at Mersa/Wadi Gawasis, Egypt, 2001-2005* (Napoli, 2007), 242; T. El Awady, Abusir XVI. Sahure - The Pyramid Causeway: History and Decoration Program in the Old Kingdom (Prague, 2009), pl. 5; Ward, In El Saeed, *et al.*, (eds.), *Studies on the Red Sea in memory of Prof. Abdel Monem el Halim el Sayed*, 151; Bard and Fattovich, *Seafaring Expedition to Punt in the Middle Kingdom*, 3-4.
- 57 S. Hassan, 'The causeway of Wnis at Sakkara', *ZÄS* 80 (1955), Fig. 2; M. Bietak, 'Zur Marine des Alten Reiches', In J. Baynes, *et al.*, (eds.) *Pyramids Studies and other Essays presented to I.E.S. Edwards* (London 1988), 36; D. Meeks, 'Navigation maritime et navires égyptiens: Les éléments d'une controverse', In *Techniques et économie antiques et médiévales: Le temps de l'innovation. Colloque International (C.N.R.S.), Aix-en-Provence 21-23 mai 1996. Travaux du Centre Camille Jullian n° 21* (Paris 1997), 179; S. Mark, 'Notes on the Mediterranean and Red Sea Ships and Ship Construction from Sahure to Hatshepsut', *JAEl* 6:2 (2014), 45.
- 58 Landström, *Ships of the Pharaohs*, 64-65 and Fig. 194; A.M.J. Tooley, *Middle Kingdom Burial Customs. A Study of Wooden Models and Related Material, Vol. I* (PhD Diss., University of Liverpool, 1989), 135.

- 59 See for example, Bietak, In Baynes, *et al.*, (eds.) *Pyramids Studies and other Essays presented to I.E.S. Edwards*, 37; Vinson, *Egyptian Boats and Ships*, 23-24; Ward, In El Saeed, *et al.*, (eds.), *Studies on the Red Sea in memory of Prof. Abdel Monem el Halim el Sayed*, 151.
- 60 Esposito, In Manzo, *et al.*, (eds.), *The Red Sea and the Persian Gulf*, 47.
- 61 *Wb* II, 265, 5-13; Faulkner, *A concise dictionary of Middle Egyptian*, 133; Esposito, in Manzo, *et al.*, (eds.), *The Red Sea and the Persian Gulf*, 47.
- 62 Vinson, *Egyptian boats and ships*, 25.
- 63 H. Goedicke, 'The Alleged military campaign in southern Palestine in the reign of Pepi I (VIth Dynasty)', *RSO* 38/3 (1963), 195-196.
- 64 W.M. Müller, *Asien und Europa nach altägyptischen Denkmälern* (Leipzig, 1893), 33, n. 2.
- 65 Boreux, *Études de nautique égyptienne*, 133, 138.
- It is worth mentioning that *mnS.w*-boat, as Basch showed, were copied from ships of the Levant and characterized by the presence of side hurdles, designed to protect cargoes from big waves. Fabre also mentioned that these 'real' sailing ships were probably used by the merchant navigators of the Levantine coast who came to Egypt to trade. The *mnS.w*-boat, attested from the Nineteenth Dynasty, was used for commercial purposes or in time of war, both on the Nile and at sea. The resemblance between the determinative  of this type and the representations of the Syrian ships of the tomb of Nebamun and Kenamun, as with the *mnS.w*-ships on the reliefs of the Battle of Kadesh indicates the Semitic origin of this boat in the opinion of some scholars. For more details, see Fabre, *Seafaring in Ancient Egypt* (London, 2005), 94-95.
- 66 Müller, *Asien und Europa nach altägyptischen Denkmälern*, 33, n. 2.
- 67 Boreux, *Études de nautique égyptienne*, 133, 138.
- 68 Stracmans, *La carrière du Gouverneur de la Haute Égypte Ouni VIe Dynastie*, 512.
- 69 Roccati, *La littérature historique sous l'Ancien Empire égyptien*, 195.
- 70 Faulkner, *A Concise Dictionary of Middle Egyptian*, 69.
- 71 Esposito, In Manzo, *et al.*, (eds.), *The Red Sea and the Persian Gulf*, 40.
- 72 M. Lichtheim, *Ancient Egyptian Autobiographies. Chiefly of the Middle Kingdom, OBO 84* (Göttingen 1988), 9, 17-18 (No. 4); L. Habachi, *The Obelisks of Egypt: Skyscrapers of the Past* (Cairo, 1994), 40-41 and Fig. 16; Kloth, *Die (auto-) biographischen Inschriften des ägyptischen Alten Reiches*, 31 (Dok. 67), 182; Strudwick, *Texts from the Pyramid Age*, 339; Esposito, In Manzo, *et al.*, (eds.), *The Red Sea and the Persian Gulf*, 40.
- 73 M.A.M. Khalifa, *The Names of Boats and their uses through ancient Egyptian texts and representations until the end of the New Kingdom* (MA, Cairo University, 1987), 104-126 (in Arabic).
- 74 Vinson, *Egyptian boats and ships*, 25.
- 75 Jones, *Nautical Titles and Terms*, 135 [23-24].
- 76 Boreux, *Études de nautique égyptienne*, 138.
- 77 J.J. Tylor and F.L. Griffith, *The Tomb of Paheri at El Kab* (London, 1894), 15.
- 78 Tylor and Griffith, *The Tomb of Paheri at El Kab*, 15 and pl. 3; S. Vinson, 'Transportation,' In W. Wendrich, *et al.*, *UCLA Encyclopedia of Egyptology* (Los Angeles, 2013), 5. Permalink <https://eScholarship.org/uc/item/3xq6b093>.
- 79 *Urk* IV, 124, 15-125, 3; Tylor and Griffith, *The Tomb of Paheri at El Kab*, 13 and pl. 3.
- 80 For another similar unnamed boat see N. de G. Davies and A.H. Gardiner, *The tomb of Huy Viceroy of Nubia in the reign of Tutankhamun (No 40)* (London, 1926), 19-20, 27 and pls. XVIII and XXXII-XXXIII; N. de Garis, Davies, *Two Ramesside Tombs at Thebes* (New York, 1927), 58 and pl. XXX; *Id.*, *The Tomb of Nefer-hotep at Thebes*, I (New York, 1933), 32-33 and pls. XLII-XLIII; Landström, *Ships of the Pharaohs*, 134-135 and Figs. 390-395.
- 81 Griffith, *Hieroglyphic Studies, etc.*, 17.
- 82 Although Breasted considered this type an independent one, he did not translate or comment on it when it was mentioned in the autobiography of Weni. See *BAR* I, § 322. However, he translated this type in the sense of "an eight vessels" in the inscription of Imn-htp son of Hpw. See *BAR* II, § 917.
- 83 Tresson, *L'Inscription d'Ouni*, 29, 33. The fathoms is measurement of the old navy, which was worth 1.66 m for the French and 1.83 m for the British. See (*The Britannica Dictionary*).

- 84 Boreux, *Études de nautique égyptienne*, 127-128.
- 85 R.O. Faulkner, *The ancient Egyptian Coffin Texts. Vol. I: Spells I-354* (Warminster, 1978), 58.
- 86 D. Meeks, *Annee Lexicographique. Egypte Ancienne. Tome II* (1978) (Paris, 1981), 280 [78.3023].
- 87 Kloth, *Die (auto-) biographischen Inschriften des ägyptischen Alten Reiches*, 201.
- 88 Simpson (ed.), *The Literature of Ancient Egypt*, 406.
- 89 Strudwick, *Texts from the Pyramid Age*, 356.
- 90 Esposito, In Manzo, *et al.*, (eds.), *The Red Sea and the Persian Gulf*, 39, 41.
- 91 Roccati, *La littérature historique sous l'Ancien Empire égyptien*, 196.
- 92 Grimal, *Histoire de l'Égypte ancienne*, 167.
- 93 *Wb III*, 283, 5.
- 94 Faulkner, *A Concise Dictionary of Middle Egyptian*, 327.
- 95 Jones, *Nautical Titles and Terms*, 142-143 [56].
- 96 Stracmans, *La carrière du Gouverneur de la Haute Égypte Ouni VIe Dynastie*, 514.
- 97 Lichtheim, *Ancient Egyptian Literature*, 21.
- 98 Jones, *Boats*, 65.
- 99 Jones, *Nautical Titles and Terms*, 142 [56].
- 100 Vinson, *Egyptian boats and ships*, 25.
- 101 W. Erichsen, Papyrus Harris I, *BiAeg V* (Brusselles, 1933), I, 7, 8.
- 102 For these types of boats see Jones, *Nautical Titles and Terms*, 136-137 [30]; 138-139 [36]; 147-148 [77].
- 103 H. Junker, *Giza IV, Die Mastaba des Kajmanx (Kai-em-anch)* (Leipzig, 1940), pl. X.
- 104 R. Anthes, *Die Felseninschriften von Hatnub. Nach den Aufnahmen Georg Möllers*, *UGAA* 9 (Hildesheim, 1964), 21 and pl. 11a.
- 105 *CT I*, 270h.
- 106 *Urk IV*, 1237, 1-2, 8
- 107 *Urk IV*, 1823, 4.
- 108 *Urk IV*, 1892, 17.
- 109 Ward has identified what she has named a complex frame among 90 ship fragments used as foundations of a roadway and ramp system located around the pyramid of Sesostris I at El-Lisht. The complex frame is composed of a floor frame and three side pieces superimposed on each side. A void of 50 cm separates the internal ends of the side pieces, thus determining an opening in the whole frame whose height is at least 35 cm. This space corresponds to a slight recess 1.6 cm deep on the upper face of the floor frame. This void suggests that it was filled by a longitudinal piece of reinforcement which rested on the wide step of the upper face of the floor frame which played the role of a keelson. See Ward, *Ancient Egyptian Ships and Boats*, 119-126.
- 110 S. Marlier, *Systèmes et techniques d'assemblage par les ligatures dans la construction navale antique méditerranéenne* (PhD Diss., Université de Provence, Aix-Marseille I, 2005), 124.
- 111 M. Abd El-Maguid, *Recherches sur la construction navale antique en Méditerranée orientale de l'Égypte pharaonique à la fin de l'Antiquité: Étude archéologique* (Ph.D. Diss., Centre Camille Jullian, Maison Méditerranéenne des Sciences de l'Homme, Université de Provence, 2009), 53, 55
- 112 Erman, *ZÄS* 20, 23.
- 113 Maspero, *Inscription of Uni*, 9.
- 114 Griffith, *Hieroglyphic Studies, etc.*, 17.
- 115 *BAR I*, § 322.
- 116 Junker, *Die Mastaba des Kajmanx*, 74-75 and pl. X.
- 117 Ward, *Ancient Egyptian Ships and Boats*, 9.
- 118 Boreux, *Études de nautique égyptienne*, 128, n. 1.
- 119 Stracmans, *La carrière du Gouverneur de la Haute Égypte Ouni VIe Dynastie*, 514.
- 120 Gardiner, *Egypt of the Pharaohs*, 97.
- 121 Lichtheim, *Ancient Egyptian Literature*, 21.
- 122 Roccati, *La littérature historique sous l'Ancien Empire égyptien*, 196.
- 123 Grimal, *Histoire de l'Égypte ancienne*, 167.
- 124 Kloth, *Die (auto-) biographischen Inschriften des ägyptischen Alten Reiches*, 201.
- 125 Simpson (ed.), *The Literature of Ancient Egypt*, 406.
- 126 Strudwick, *Texts from the Pyramid Age*, 356.
- 127 J. Couyat et P. Montet, *Les inscriptions hiéroglyphiques et hiératiques du Ouâdi Hammâmât*, *MIFAO* 34 (Cairo, 1912), 50 [15].

- 128 Couyat et Montet, *Les inscriptions hiéroglyphiques et hiératiques*, 42 [14-15]. For more details, see for example: A. H. Gardiner, T.E. Peet, and J. Černy, *The Inscriptions of Sinai*, Part II, Translations and Commentary (London, 1955), 16, 110 [20-29]; W.A. Ward, *Index of Egyptian Administrative and Religious Titles of the Middle Kingdom* (Beirut, 1982), 29 [206], p. 30 [211].
- 129 *Wb* II, 156, 3.
- 130 Boreux, *Études de nautique égyptienne*, 235
- 131 T.A.H. Wilkinson, *Royal Annals of Ancient Egypt: The Palermo Stone and its associated fragments* (London, 2000), 141-143.
- 132 A.M. Blackman, Middle-Egyptian Stories, Part I, *BiAeg* II (Bruxelles, 1932), 42 (23-27).
- 133 Boreux, *Études de nautique égyptienne*, 284
- 134 L. Casson, *Ships and Seafaring in Ancient Times* (Texas, 1994), 23.
- 135 Abd El-Maguid, *Recherches sur la construction navale antique en Méditerranée orientale de l'Égypte pharaonique à la fin de l'Antiquité*, 57.
- 136 Boreux, *Études de nautique égyptienne*, 284-285.
- 137 Two disassembled and stored boats from the Middle Kingdom were found in two caves carved in Ayn Sukhna mountains. Although it was found complete, the fire had led to the transformation of its wood into charcoal, so Pomey was unable to re-assemble them. Despite this, he concluded that they resemble the Dahshur boats, and estimated their length to be between 13.5 to 15 m, and he could not determine their width. See P. Pomey, 'Pharaonic Ship Remains of Ayn Sukhna', in N. Günsenin (ed.) *Between Continents, Proceedings of the Twelfth International Symposium on Boat and Ship Archaeology 2009* (Istanbul, 2012), 7-16. However, by comparing them with the boats of Dahshur, which have a ratio of length to width about 4: 1 their width would be about 3.5 m.
- 138 C. Ward and C. Zazzaro, 'Evidence for Pharaonic Seagoing Ships at Mersa/Wadi Gawasis, Egypt', *IJNA* 38/1 (2009), 2-17.
- 139 See for example: *LD* II, 106 *a*; W.M.F. Petrie, *Medum* (London, 1892), 23, 26 and pl. XI, XXIII; Id., *Deshasheh*, 1897 (London, 1898), 7 and pl. V; N. de G. Davies, *The Mastaba of Ptahhetep and Akhethetep at Saqqareh, Part I. The chapel of Ptahhetep and the Hieroglyphs*, (London, 1900), 10, pls. XXI, XXV-XXVI; Id., *The Mastaba of Ptahhetep and Akhethetep at Saqqareh, Part II, The Mastabs. The sculptures of Akhethetep* (London, 1901), 15-16 and pl. XIII; Id., *The Rock Tombs of Sheikh Said* (London, 1901), 24 and pl. XII; H. Wild, *Le Tombeau de Ti. Fascicule II: La chapelle (première partie)*, *MIFAO* 65 (Cairo, 1953), pls. CX, CXXIX; A.M. Moussa und H. Altenmüller, Das Grab des Nianchchnum und Chnumhotep, *ArchVer* 21 (Mainz, 1977), 74-75, Taf. 21, Abb. 8.
- 140 A. Servin, 'Constructions navales égyptiennes: Les barques de papyrus', *ASAE* 48 (1948), 57.
- 141 Servin, *ASAE* 48, 57-58.
- 142 Lichtheim, *Ancient Egyptian Autobiographies*, 5-6.
- 143 *Urk* I, 103, 7-104, 2.
- 144 Simpson (ed.), *The Literature of Ancient Egypt*, 377, n. 30.
- 145 Roccati, *La littérature historique sous l'Ancien Empire égyptien*, 187.