

**Bellerophon talets from the Mycenaean world?
A tale of seven bronze hinges***

In the sixth book of the *Iliad* Glaukos relates the story of his grandfather, Bellerophon, who had been sent from Ephyre on the Greek mainland to Lycia carrying with him a folded tablet bearing on it baneful signs.

πόρεν δ' ὁ γε σήματα λυγρὰ
γράψας ἐν πίνακι πτυκτῶι θυμοφθόρα πολλὰ

and gave him baneful tokens
graving in a folded tablet many signs and deadly.¹

The single reference to this type of tablet in the early preserved literature suggests that such tablets were rare although they must have been recognizable to the audience at the time they were originally incorporated into the epic tradition. The nature and date of this tablet, known among Homeric scholars as the Bellerophon Tablet, has been much debated.² The similarities between the description in the *Iliad* and the folded wooden tablet found in a Late Bronze Age shipwreck off the coast of Turkey at Uluburun³ are obvious, but the possibility that the Bellerophon Tablet of the *Iliad* might be prehistoric has been vigorously denied.⁴ The

* George Bass and the Institute of Nautical Archaeology at Texas A & M University supplied the illustrations of the wooden tablet from Uluburun published with this article. The bronze hinges from Pylos, now in the Chora Museum, were examined and photographed with the kind permission and helpful assistance of the Prehistoric and Classical Ephoria of Antiquities in Olympia and the guards of the Chora Museum. My thanks are extended to all who made these illustrations possible.

¹ *Il.* 6.168-9. English translation by A.T. Murray (Loeb edition).

² Cf. discussion and bibliography cited by J.P. Crielaard, 'Homer, History and Archaeology. Some Remarks on the Date of the Homeric World', in J.P. Crielaard (ed.), *Homeric Questions. Essays in Philology, Ancient History and Archaeology, Including the Papers of a Conference Organized by the Netherlands Institute at Athens (15 May 1993)* (Amsterdam 1995) 213-4.

³ G.F. Bass, 'A Bronze Age Shipwreck at Ulu Burun (Kas): 1984 campaign', *AJA* 90 (1986) 269-96; 'Oldest Known Shipwreck Reveals Splendors of the Bronze Age', *National Geographic* 172 (1987) 692-733; G.F. Bass and C. Pulak, 'The Late Bronze Age Shipwreck at Ulu Burun: 1986', *AJA* 91 (1987) 321; G.F. Bass, C. Pulak, D. Collon and J. Weinstein, 'The Late Bronze Age Shipwreck at Ulu Burun: 1986 Campaign', *AJA* 93 (1989) 1-29; G.F. Bass, 'A Bronze-Age Writing-Diptych from the Sea off Lycia', *Kadmos* 29 (1990) 169.

⁴ A. Ford, *Homer. The Poetry of the Past* (Ithaca & London 1992) 13, 137-8; B.B. Powell, *Homer and the Origin of the Greek Alphabet* (Cambridge 1991) 199-200; R. Bellamy, 'Bellerophon's Tablet', *CJ* 84 (1988-89) 289-307; A. Heubeck, 'Schrift', *ArchHom* 3 (1979) X, 10. Although the opinions of Bellamy and especially Heubeck are often cited to support this concept, it should be noted that both scholars published their conclusions before the Uluburun tablet had been found. Nevertheless their interpretation continues to be accepted and casually repeated by scholars of Greek literature; cf. for example B. Knox, *Introduction to The Odyssey, Homer*, trans. B. Fagles (New York 1996) 20.

preserved tablet⁵ consists of two wooden, rectangular leaves, each 0.092 m. by 0.062 m., whose inner faces were recessed to receive a layer of wax on which letters or signs were recorded (PLATE II, *a-b*). The two leaves were held together by a hinge, which is now only partially preserved. The hinge originally consisted of an ivory cylinder cut into three segments of unequal length, with the missing, centre section longer than the two, preserved outer sections. The ivory cylinder has a diameter of 0.009 to 0.008 m. The shorter preserved sections used on either end are 0.026 m. each in length. The central, missing section has a restored length of 0.038 m. These three ivory pieces were originally attached to the wooden sides of the tablet by six wooden nails, 0.02 to 0.017 m. in length. The ivory hinge rotated around small wooden dowels set in the ends of adjacent cylindrical sections. This fairly elaborate apparatus appears to have been devised in order to insure that the tablet could lie flat when it was in an open position.⁶ An additional seventh attachment, now missing, was added to the exterior of the tablets to form a closing mechanism which was used to hold the two tablets together in a folded position. After the discovery of the wooden tablet from the shipwreck, additional ivory hinges, whose significance had not been previously understood, were identified and the extensive use of such early tablets recognized.⁷ From the shipwreck itself part of a second wooden tablet and parts of an ivory hinge from a third tablet have now been recovered.⁸ This new evidence indicates that the well-known, published tablet from the wreck was not unique in the prehistoric period.

On the Greek mainland similar ivory hinges have not yet been identified amid the prehistoric remains, but the existence of wooden tablets in the Near East suggests the possibility that the Mycenaean also knew and used similar tablets. During the first season of excavations at the palace at Pylos, a room containing over 200 Linear B clay tablets was uncovered.⁹ Amid the broken fragments of tablets in the southern corner of the room, traces of burned wood and seven very badly corroded bronze hinges were found. It was noted at the time of discovery that amid a cache of Linear B tablets similar bronze hinges with traces of burned wood had also been

⁵ R. Payton, 'The Ulu Burun Writing-Board Set', *Anatolian Studies* 41 (1991) 99-106; P. Warnock and M. Pendleton, 'The Wood of the Ulu Burun Diptych', *Anatolian Studies* 41 (1991) 107-11; M. Pendleton and P. Warnock, 'Scanning Electron Microscopy Analysis of the Ulu Burun Diptych', *Institute of Nautical Archaeology Newsletter* 17:1 (1990) 26-7.

⁶ Payton (n.5) 103.

⁷ D. Symington, 'Late Bronze Age Writing-Boards and their Uses. Textual Evidence from Anatolia and Syria', *Anatolian Studies* 41 (1991) 111-23.

⁸ I am indebted to George Bass for this information which he conveyed to me in a letter written on October 6, 1996.

⁹ This room was later labeled Room No. 8 or, as it is better known in modern scholarship, the Archives Room; C.W. Blegen and M. Rawson, *The Palace of Nestor at Pylos in Western Messenia*, vol I: The buildings and their contents (Princeton 1966), hereafter Pylos I, 6, 95-100.

found on Crete at the palace at Knossos.¹⁰ The tablets found in this deposit at Knossos, which came to be known as the Armoury Deposit, were far more numerous than those of the Pylos deposit, but once again only seven bronze hinges were reported.¹¹ One of these hinges along with some of the burned wooden fragments was sketched by Sir Arthur J. Evans in his notebook for the 1900 season of excavations at Knossos.¹² At the time of their initial discovery Evans believed that the bronze hinges came from wooden boxes which had been used to store the clay tablets. The absence of additional bronze hinges in the other numerous caches of Linear B tablets found at Knossos and with one exception at Pylos makes this interpretation doubtful. It is known that the tablets were stored in groups and labeled. Some of these groups were tied together, whereas others were placed in wicker baskets.¹³ Had the Linear B tablets also been customarily stored in wooden boxes, traces of such boxes with their bronze hinges should have been discovered in some of the other deposits.¹⁴

The best preserved bronze hinge found with the tablets at Pylos has a total length of 0.025 m., PLATE IIc, upper left.¹⁵ It consists of a thin, rectangular piece of bronze, less than 0.001 m. in thickness and 0.009-0.011 m. in width, which had been bent on one side to form a circle 0.012 m. in diameter. On the other side the two ends of the bronze were joined to form a flat surface which was pierced by a nail 0.014 m. in length. The flat end of the hinge appears to have been attached to a wooden object of some sort, represented by the remains of carbonized wood found with the hinge. The

small size of the nail suggests that the wooden object was fairly small. Two other hinges have the same form and similar dimensions (PLATE IIc, top row, second and third from left).¹⁶ They appear to have been flattened at the time of destruction; the circular area has become oval and the overall length elongated to 0.028 m. and 0.04 m. respectively. The fourth fragment is badly corroded and only partially preserved (PLATE IIc, top, right).¹⁷ It consists of the flattened end of the hinge which has been wedged apart with the nail piercing the hinge still preserved; one of the fattened, broken ends extends further than the other, forming part of a bronze circle which encloses a piece of carbonized wood. The remains of carbonized wood within the circular part of the hinge preserved in this fragment suggests that the original hinge from which these fragments came consisted of a circular, wooden pivot which was held in place and attached to a larger object by the bronze hinges, some on one side and some on the other in a fashion similar to the ivory hinge of the tablet from Uluburun. The fifth fragment from Pylos preserves only the nail and the flattened end of the hinge (PLATE IIc, bottom, left).¹⁸ The sixth comes from the circular part of the hinge (PLATE IIc, bottom row, displayed in the museum adjacent to and immediately below the seventh fragment of the deposit).¹⁹ These six fragments are similar in shape to the hinge drawn by Evans at Knossos and they probably served similar purposes. The last partially preserved, published bronze fragment of this deposit from Pylos differs from the others (PLATE IIc, bottom row, immediately above and adjacent to the sixth fragment).²⁰ It has a preserved length of 0.021 m. and a varying width of 0.009 m. to 0.0075 m. It consists of a single layer of bronze less than 0.001 m. in thickness. Its preserved end is slightly rounded and narrower than the rest of the fragment. Near the broken end, it is pierced by a round pointed pin which lies flush with one side of the bronze and extends c. 0.005 m. from the other flat surface. A second, less well-preserved pin pierced the other end of the fragment, near the rounded preserved end. A small piece of carbonized wood attached to a thin, flat piece of bronze is displayed with the other fragments in the Chora Museum (PLATE IIc, bottom row, second from left).²¹

Bronze hinges of the small size found at both Pylos and Knossos must have been used for a fairly small wooden object. Had this object been a wooden chest, as originally suggested, the size of the tablets²² makes it

¹⁰ C.W. Blegen and K. Kourouniotis, 'Excavations of Pylos, 1939', *AJA* 43 (1939) 569; *Pylos I* (n.9) 98, fig. 274.1 (objects slightly enlarged in photograph). The hinges were originally stored in the National Archaeological Museum in Athens, Inventory No. 7755. After the museum was built in Chora, along with many of the other finds from Pylos the hinges were returned and they are now on display in the Chora Museum, Inventory No. 2774.

¹¹ A.J. Evans, *The Palace of Minos at Knossos* (London 1921-35) hereafter PM, IV, 668.

¹² This sketch was published by J. Boardman, *The Date of the Knossos Tablets* (Oxford 1963) 21-3, fig. 5.

¹³ *Pylos I* (n.9) 97; cf. also PM (n.11) IV, 597.

¹⁴ Cf. PM (n.11) IV, 836, where it is noted that in the excavations on Crete bronze hinges were found only with this one deposit of tablets. After the publication of Evans' work, two groups of small bronze hinges with Linear A tablets were found in the palace at Zakros; N. Platon, *Zakros. The Discovery of a Lost Palace of Ancient Crete* (New York 1971) 148, 151, 159; N. Platon and W.C. Brice, *Inscribed Tablets and Pithos in Linear A System from Zakros* (Athens 1971) 26-7, 32-5; E. Hallager, *The Minoan Roundel and Other Sealed Documents in the Neopalatial Linear A Administration in Aegaeum* 14 (1996) I, 75-7. Following Evans' original suggestion, Platon once again associated the bronze hinges with wooden boxes which possibly contained Linear A tablets. If Evans' interpretation of the bronze hinges found with the Linear B tablets is questioned, then Platon's explanation of the bronze hinges found with the earlier tablets also needs to be re-examined.

¹⁵ Illustrated in *Pylos I* (n.9) fig. 274.1, upper right. Object in lower right of the illustration does not belong with the hinges. At the time this photograph was taken, the hinges along with other objects had been mounted for purposes of display and it was not possible for us to rearrange the fragments before photographing them.

¹⁶ Illustrated in *Pylos I* (n.9) fig. 274.1, on right, bottom and center rows.

¹⁷ Illustrated in *Pylos I* (n.9) fig. 274.1, center, left.

¹⁸ Illustrated in *Pylos I* (n.9) fig. 274.1, top row, center.

¹⁹ Illustrated in *Pylos I* (n.9) fig. 274.1, middle row, center. The sixth fragment is thicker than the seventh fragment and thus presumably these two fragments do not belong together. The fifth and sixth fragments, on the other hand, because of their fragmentary state of preservation, could have, but did not necessarily come from the same hinge.

²⁰ Illustrated in *Pylos I* (n.9) fig. 274.1, top, left.

²¹ This piece is not illustrated in *Pylos I* (n.9) fig. 274.1. It is displayed with the bronze fragment attached to the background, the carbonized wood face up.

clear that the chest could have held only a very few tablets at one time. Many more bronze hinges should have been found with the other deposits of Linear B tablets if Evans' original interpretation is correct. Subsequent excavations have shown that this did not happen. Some other type of wooden object associated with writing now seems indicated. The wooden writing tablet from Uluburun immediately comes to mind as a possible parallel. The seven corroded hinges found at Pylos, corresponding to the seven partially preserved hinges found at Knossos, can be compared to the exterior closing attachment and the six wooden nails used with the ivory hinge on the tablet from Uluburun.²³

If it is correct to associate the two groups of seven bronze hinges from Knossos and Pylos with the writing tablet found in the Late Bronze Age shipwreck off Uluburun, then the existence of Mycenaean writing tablets²⁴ suggests the possibility that the Bellerophon Tablet mentioned in the *Iliad* is also Mycenaean in

origin.²⁵ The extent of Mycenaean reminiscences in the epics has been a question of much debate. The recognition that one more item found in the epics is possibly to be dated to the Mycenaean period helps strengthen the position of those scholars who think that there is a close connection between the epics and the Mycenaean period.

IONE MYLONAS SHEAR

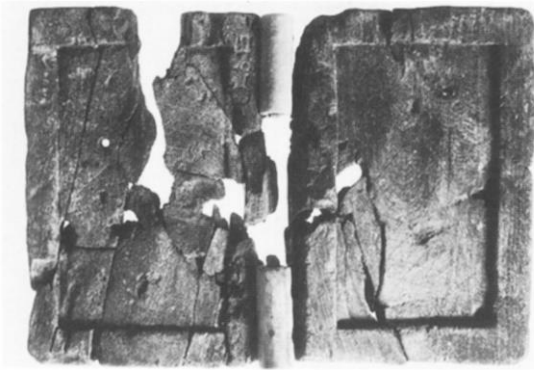
Princeton, New Jersey

²² The Linear B tablets, of course, vary greatly in size. The largest one found at Knossos was reported to be 0.267 m. by 0.155 m.; A.J. Evans, *Scripta Minoa I* (Oxford 1909) 48. The larger tablets from Pylos have a height of 0.05 to 0.12 m. or more and the length of 0.07 to 0.25 m.; the smaller tablets have a height of 0.01 m. to 0.05 m. and a length of 0.10 to 0.25 m.; E.L. Bennett Jr., *The Pylos Tablets, Texts of the Inscriptions Found 1939-1954*, with introduction by C.W. Blegen (Princeton 1955) viii-ix.

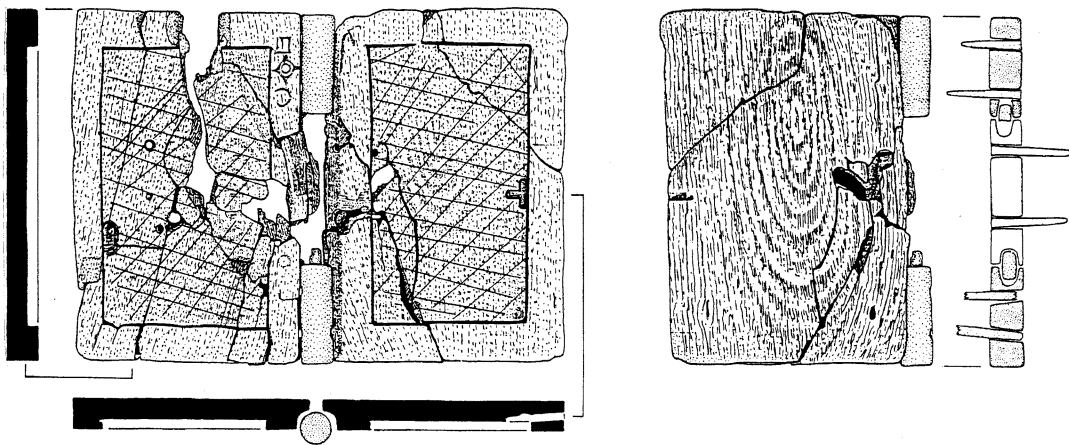
²³ A row of six hinges of the size found at Pylos placed 0.003 m. apart would create a single long hinge of c. 0.081 m. which is similar though slightly smaller than the total length of the hinge on the tablet from Uluburun.

²⁴ The association of bronze hinges with wooden tablets in the Mycenaean period suggests that the bronze hinges found at Zakros (n.14) should also be interpreted as being part of similar wooden tablets of an earlier period. Platon (n.14, *Inscribed Tablets*, 26) originally suggested that the twelve hinges found in the archives room at Zakros came from four boxes, the three larger ones from a larger box and the remaining nine from three smaller boxes, with each box employing three hinges. A wooden lid fastened by three hinges necessitates the use of two hinges on one side and a single hinge on the other. This type of fastening would have been so unstable when the lid was open with its weight resting on the hinge, that it is difficult to understand why bronze hinges were used. Since the tablets at Zakros were stored in groups held together by a sealed band, the process of sealing them into groups would have automatically held the top of a wooden box in place without the addition of hinges. The hinges, however, must have served some purpose and it is interesting that their shape is similar to those of Knossos and Pylos. If they represent the precursors of the wooden tablets of the later period then the division of twelve hinges into groups of three at Zakros suggests that each tablet was held together by three hinges. In contrast to open wooden lids on boxes, the tablets, when open and laid flat on a horizontal surface, would have exerted little, if any, pressure on the hinge, hence their small size. The constant opening and closing of the wooden tablet, however, would have served to loosen the hinges from the wooden leaves and it may be for this reason that multiple hinges were introduced in the later, more developed tablets of the Linear B period.

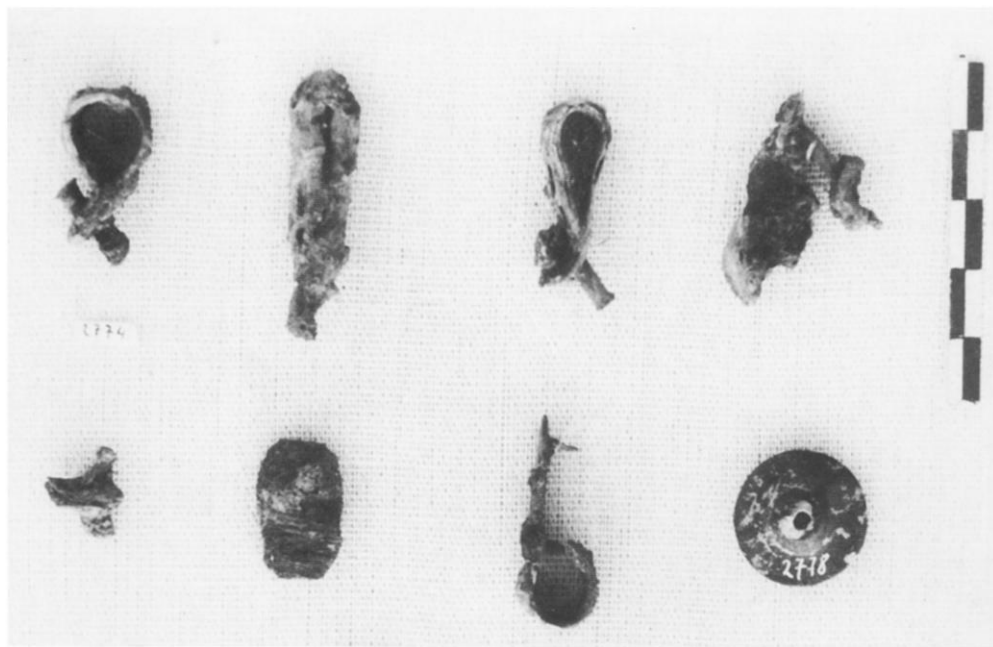
²⁵ W. Burkert, 'Oriental Myth and Literature in the *Iliad*', R. Hägg (ed.), *The Greek Renaissance of the Eighth Century BC. Tradition and Innovation. Proceedings of the Second International Symposium at the Swedish Institute in Athens, 1-5 June, 1981* (Stockholm 1983) 51-6; Heubeck (n.4) 134, and Powell (n.4) 199-200, argued that this tale must have come from the east. Mycenaean contacts with the east have been well documented; cf. for example the many words associated with textiles which came from that part of the world; E.J.W. Barber, *Prehistoric Textiles, the Development of Cloth in the Neolithic and Bronze Ages with Special Reference to the Aegean* (Princeton 1991). Since the existing wooden tablet was found on a ship which had entered Aegean harbours, as indicated by the cargo on the ship, the knowledge of such tablets could have reached the people of Crete and the mainland during the course of this trade. With this knowledge, tales concerning their use would also have been known and the possibility that some of these tales were adopted into the oral tradition of the Greek Bronze Age becomes a likely sequel.



(a) Photograph of Uluburun tablet by Donal A. Frey/INA.



(b) Drawing of Uluburun tablet by Netia Piercy.



(c) Photograph of Bronze Hinges found at Pylos by J.L. Shear (object on lower right does not belong with the hinges).