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SOME REMARKS ON THE USE OF DUCKBILL FENESTRATED AXES IN THE MIDDLE BRONZE NEAR EAST

In the earlier second millennium BC, two kinds of socketed axes were in use in the Near East: narrow-bladed and fenestrated ones (axes with two holes in the blade)¹. While the former had already been known in the third millennium BC and remained in use in some forms until modern times, the latter were a device of the Middle Bronze Age and became obsolete towards the end of this period.

The duckbill axe (*Fenestrated Axe Type 1* according to Philip) (PHILIP 1989: 49-51)², named after the peculiar shape of its blade, was the most widespread type among the fenestrated axes. The blade of this axe was of small dimensions, *ca* 10 cm long and *ca* 5 cm broad. Its small eye-shaped fenestrations extended into the socket. Several examples had a single rib running between fenestrations on either side of the flat blade. The cutting edge of the blade was semi-ovoid³.

Examples of this weapon have turned up over an extensive area: from Anatolia in the north through the Levant and northern Mesopotamia and as far as Egypt to the south and the Hamrin region of the Zagros foothills to the east⁴. No artifacts representing this axe type have apparently been found in southern Mesopotamia, although iconographical sources confirm their presence there, too. I shall later return to this point.

The sudden popularity of duckbill axes in the early second millennium BC is striking⁵, especially in view of the fact that contemporary axes of narrow-bladed types⁶ have relatively longer and narrower blades and for that reason seem to have been much more effective⁷. A possible explanation may lie in the strength of an established structural tradition or simply in routine⁸. It is widely believed that fenestrated axes were developed from the socketless crescentic axe of *epsilon* type, known in the

¹ The present author uses the term "narrow-bladed axes" to refer to a very large and heterogeneous group of weapons, comprising axes with chisel-shaped, adze-shaped, flaring-sided, lobate-shaped, and pick-shaped blades, this in contrast to the distinct and homogeneous group of fenestrated axes. However, the former term is applied sometimes solely to the chisel-shaped axes, while the other shapes are defined as variants of shaft-hole axes.

² In the case of fenestrated axes, the author refers to Philip's typology presented in the latest and comprehensive monograph devoted to Levantine metal weapons. Axes of *Type 1* correspond to Maxwell-Hyslop's *Type B4* (MAXWELL-HYSLOP 1949: 119-121).

³ In terms of battle efficiency, duckbill axes appear to be the most functional compared to other fenestrated types. "D-shaped" axes (Philip's *Type 2* and Maxwell-Hyslop's *Type B3*) are much broader and have much larger fenestrations, possibly resulting in a lessened security of the blade. "Triangular-shaped" axes (Philip's *Type 3*) should be considered as an intermediary form between *Type 1* and *2*. The length and breadth of *Type 3* axes are almost the same. A number of examples of *Type 2* and *3* occur in precious metal (Byblos), indicating perhaps their role as items of status or ceremonial weapons. Nevertheless, axes of *Type 3* in their utilitarian form should be treated as a slightly broader version of the classic duckbill axe. Finally, miniature fenestrated axes (Philip's *Type 4*) should be considered as offerings (PHILIP 1989: 49-59).

⁴ More on distribution, cf. GERSTENBLITH 1983: 89-90; PHILIP 1989: 49-51. It is worth noting in summary that the

duckbill-axe distribution is concentrated in the area of western Syria and Lebanon. However, a considerable number of examples was found at the cemetery of Baghouz in the vicinity of Mari on the Middle Euphrates. Taking into account the Syro-Palestinian specimens, including those from Baghouz, Philip enumerates 55 items of this weapon. Beyond this area, several examples are reported from the Hamrin (Tell Yelkhi, Tell es-Suleimeh) (PHILIP 1995: 122, 133), two from the vicinity of Kirkuk, one from Mari, two from Anatolia (Kanesh, Acemhüyük), and one from Egypt (Tell el-Dab'a). Two examples are said to be of Cypriot provenance, but the attribution has been questioned. Axes of Philip's *Type 3* are not so frequent: several examples come from Byblos, two from Ebla, one from Ugarit, two from Kanesh, and one from Megiddo.

⁵ Duckbill axes appear as early as the 20th century BC and disappear towards the end of the 18th century; this corresponds to the MB I (or MB IIA) period in the Levant and the Amorite period in Mesopotamia.

⁶ Cf. Maxwell-Hyslop's *Types 13, 23, 24* (MAXWELL-HYSLOP 1949: 103, 114-116), and also specimens from the Hamrin (PHILIP 1995: 122-133)

⁷ On deducting the diameter of the socket from the length, the blade of the standard duckbill axe turns out to be only around 7 cm long, compared to 11-17 cm of narrow-bladed axes.

⁸ We may be dealing with a specific ethnic tradition. Is there no significance to the fact that the range of the duckbill axe overlaps geographically and chronologically the Amorite kingdoms in Syro-Mesopotamia?

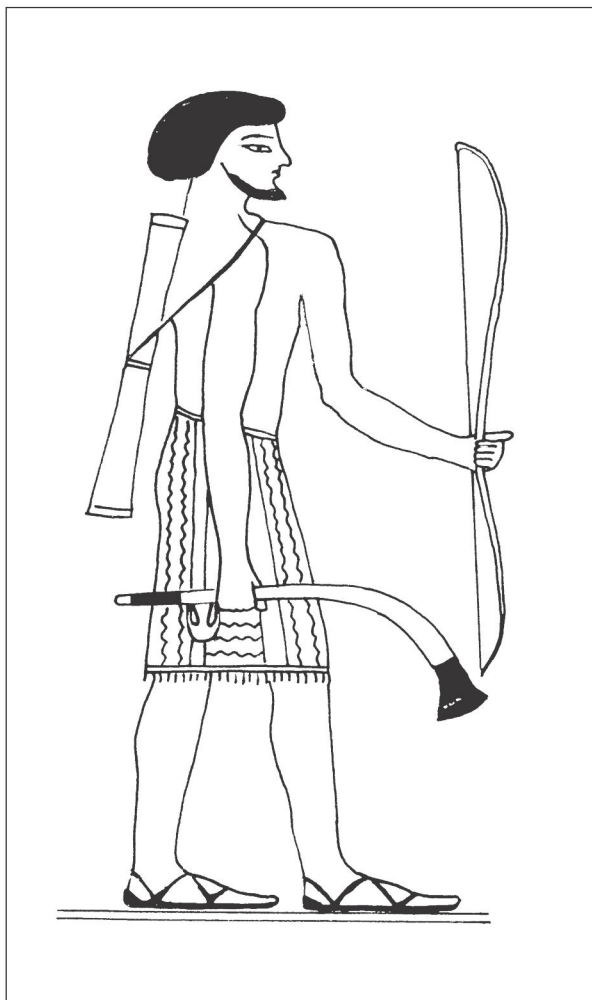


Fig. 1. Wall painting in the tomb of Khnumhotep at Beni Hassan. Drawing after YADIN 1963: 167 (original drawing: NEWBERRY 1893: pl. XXXI)

Levant and Mesopotamia in the late third millennium BC. The blade of this axe was attached to the shaft by three tangs, so that two openings were formed between the blade and the shaft. The presence of the fenestrations in the blade of the duckbill axe seems to be a clear reference to the prototype, of which the duckbill axe is the last and most fully developed manifestation⁹.

⁹ While openings or fenestrations in earlier "broad" types were meant to lighten the blade, they have no such mechanical function in the case of duckbill axes.

¹⁰ Yadin argued that the narrow cutting edge was intended to concentrate the weapon's impact in order to penetrate defensive armour, especially metal helmets (YADIN 1963: 60).

A different explanation could be brought forth on the grounds of functional necessity. Considering that the development of offensive arms and defensive armour is inherently connected, it seems reasonable to suggest that narrow-bladed axes were meant to pierce strong body armour¹⁰. If the assumption is made that duckbill axes were invented and used in the circle of warriors in which defensive armour was not so advanced, it could explain why their blades did not need to be so long. Besides, the contemporary occurrence of two or even more distinct types, belonging to the same category of weapon, is attested in the textual sources. There are three different Akkadian terms referring to axes in contemporary texts from Mari (SALONEN 1965: 13-16; SASSON 1969: 28-29)¹¹. Furthermore, the Mari archives provide information on the tactical division of the army of this period into heavy and light-armed units, suggesting in fact that soldiers differed with regard to offensive as well as defensive armament (SASSON 1969: 43).

Finally, it is possible that the duckbill axes reflect an entirely different technique of fighting, as indicated by the analysis of two representations of this weapon. A duckbill axe appears on a wall painting in the tomb of the nomarch Khnumhotep at Beni Hasan in Egypt, dated to the 6th year of reign of Sesostri II (1890 BC) (GERSTENBLITH 1983: 90). The axe is being carried by a warrior in a scene of the procession of "Asians" (Fig. 1)¹². The other example comes from a Babylonian cylinder seal impression dated to the 3rd year of the reign of Hammurabi (1790 BC) (MESSERSCHMIDT 1988: 37). It shows this weapon held by the goddess Ishtar who accompanies a marching army (Fig. 2)¹³.

Despite the remoteness of these two representations in terms of style and distance they share many features in common. In both cases the handle looks quite strong compared to the blade. It is curved and tapers towards the top, while thickening noticeably at the base. In the Egyptian example, the base seems to be further reinforced with a kind of a flaring ferrule at the very end of it. The fastening to the shaft is identical in both cases. The blades are not mounted at the very top of the shaft, but much below. It is the way in which the figures carry the axe that is striking: gripped just below the blade, as if the butt of the shaft was not convenient to hold. Curved handles and the peculiar method of attachment were

¹¹ These are as follows: *agasalakum* (ARM 2.139), *hassinum* (ARM 2.139, ARM 7.249), and *pašum* (*paštum*) (ARM 1.31, ARM 7.102)

¹² Philip's *Type 1* axe is likely depicted here, although the socket has not been indicated.

¹³ According to Philip's classification, this axe is of *Type 3*.

attested in the archaeological record by finds from Baghouz (MESNIL DU BUISSON 1948, pl. XLVII)¹⁴.

To judge by these features, the base of the handle appears to have been as dangerous as the blade itself. One may surmise that using this weapon in battle depended on both cutting with the blade and smiting with the butt of the shaft. If so, the duckbill axe would combine specifically the features of an axe and a mace¹⁵. The curvature of the shaft also appears to have had considerable functional importance; in smiting, it gave leverage to the swing and in cutting, it let the blade penetrate the victim at right angles. Unlike fenestrated axes, all known representations of narrow-bladed axes depict the blades in line with the straight shafts. Their blades were mounted perpendicularly to the handle or slightly sloping downwards, thus the cutting edge pierced at an angle (the corner between the cutting edge and the lower margin of the blade was the point of contact), making the penetration of defensive armour easier, but it would not have been the case of duckbill axes. If a duckbill blade were fastened to a straight shaft, its semi-ovoid blade would have glanced off the struck surface.

It seems reasonable to assume that the part of the shaft projecting beyond the top of the socket was used as a grip (at least for one hand) when smiting. A kind of a covering is visible at the top of the shaft of the Egyptian example. The purpose of the smiting stroke was most likely to stun the enemy or parry an enemy blow. After that, a warrior may have shifted the shaft immediately to the other end and followed up with a hit with the blade to a tender spot. Perhaps, the art of fighting with this weapon depended on the sequence of cutting and smiting blows made alternately.

Unfortunately, for it would have constituted crucial evidence, there is no example in the iconography of the use of this weapon in battle. However, the virtually identical image in two completely independent representations of the duckbill axe seems a significant clue. The reliability of this image is further reinforced by the considerable remoteness of the places where the representations appear. Moreover, the Egyptian painting was



Fig. 2. Detail from the seal impression BM 16815 u.
After MESSERSCHMIDT 1988: 37, fig. 3

probably meant as a depiction of the peculiarities of foreigners, in particular their characteristic arms. Considering the Mesopotamian example, the weapon held by the goddess of war certainly should not be disregarded.

¹⁴ To be sure, the example from Baghouz does not reveal the particular enlargement of the butt, but it may be due to the state of the wood.

¹⁵ It is interesting to note that the mace as a separate weapon seems to go out of common use in the second millennium BC and takes on the characteristics of a status object or a ceremonial weapon.

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Abbreviations

ASOR American School of Oriental Research