



Introduction

The primary weapons throughout the Bronze Age were the spear and the hand-held blade (sword, rapier, dagger). The spear was formed by a bronze spearhead fitted to a wooden shaft and was usually hand-held in combat rather than thrown. The spearhead tip was used in thrusting moves and the sharpened blade edges in cutting and slashing moves. The wooden shaft also had combat use to knock the enemy off balance and to parry attacks from other spears or swords.

In the EBA, daggers exceeded bronze spearheads by a ratio of 4 to 1. By the MBA, spears developed to become the more effective weapon, with the number of spearheads exceeding that of dirks, rapiers and early swords by 40%.

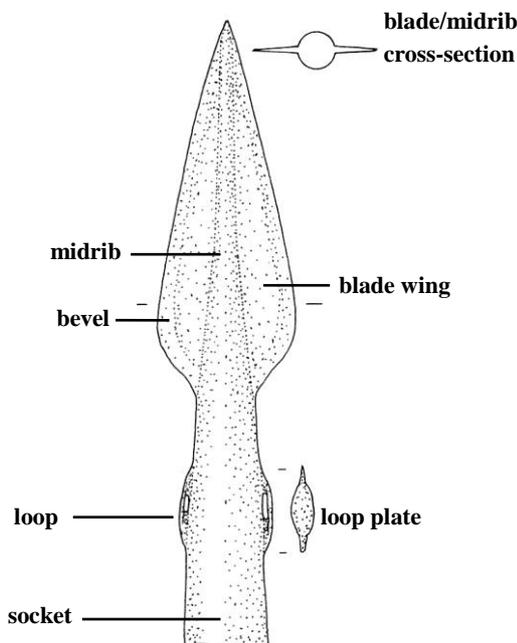


Fig.1. Spearhead attributes

Form, material

There was a clear progression in spearhead design during the EBA and MBA, based on steadily improving technology. Initially the spearhead blade was similar to that of the dagger, but with a long tang at the blade base to attach it to a wooden shaft. The next development was to replace the tang with a hollow socket at the blade base, with loops on the socket to assist in securing the spearhead to the shaft. The socket was next extended into the blade forming a midrib, which strengthened the spearhead. Casting skills improved further during the MBA, allowing much larger spearheads to be cast. At this stage the spear was the most effective weapon available to the warrior, because the rapier had a weakness in its hilt mechanism. The flange-hilted sword was introduced in the LBA, and superseded the spearhead as the most effective weapon.

The metal used was bronze, an alloy of copper and tin.

Although the ratio of copper to tin varied, an average composition during the EBA/MBA was 85% copper, 13% tin and 2% various impurities. In the LBA, additional lead was introduced into the alloy.

Dating

Spearheads in the EBA were the tanged and early socketed types, accounting for just 7% of the combined EBA/MBA total. These were from the Arreton phase dating to 1700-1550 BC. Spearheads from the earlier MBA were those with sockets extending into the blade, and with loops on the side of the socket. They date to the Acton Park and Taunton phases, 1550-1250 BC. The spearheads of the later MBA were generally larger, and had loops at the base of the blade (basal loops). They were current in the Taunton and Penard phases – 1400-1125BC.

EBA	Arreton	1700-1550 BC
MBA	Acton Park	1550-1400
	Taunton	1400-1250
	Penard	1250-1125

Distribution

Distribution of spearheads in the EBA and MBA extended throughout England, Scotland, Wales and the Isle of Man. Areas of particular intensity were the Thames Valley, East Anglia and the Trent Valley.

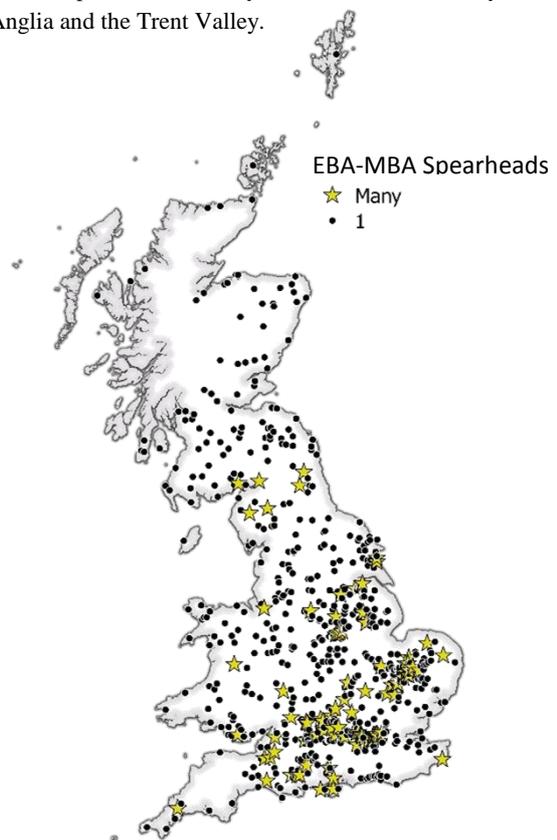


Fig. 2. Distribution Map



Classification

A detailed classification of EBA and MBA spearheads has been developed in a recent comprehensive study (Davis 2012), and are listed as Groups 1 to 10. Continuous development and experimentation in design continued through the period, and there are several variants within the Groups.

Group 1: “Tanged”. Triangular blade, long tang with rivet hole at the end.

Group 2: “Early socketed”. Triangular blade. Socket with short shaft aperture extending only to base of the blade. Normally loops on socket, but some have peg holes.

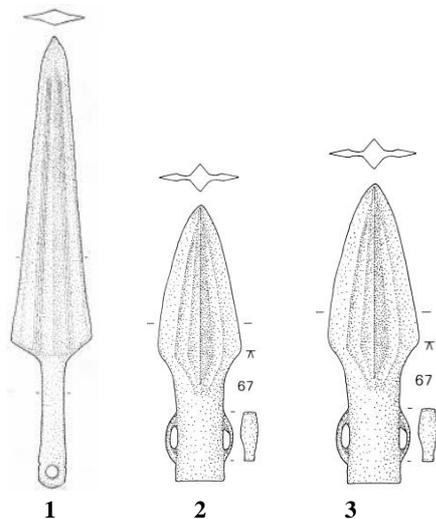


Fig. 3. Groups 1-3

Group 3: “Ribbed Kite blade”. Kite shaped blade. Prominent rib on each blade wing. Midrib reaches two thirds up the blade, continuing as a narrow ridge to tip. Loops on socket.

Group 4: “Plain Kite blade”. As Group 3, but no rib on blade wing (*not illustrated*).

Group 5: “Wide blade”. A wider blade than the later side looped spearheads. Midrib reaches two thirds up the blade, continuing as a narrow ridge to tip. Loops on socket.

Group 6: “Developed side looped”. Narrow blade in various shapes – low blade base, smooth elliptical blade edges, concave upper blade edges. Midrib extends to tip of blade. Loops on socket. This is the most numerous type representing 48% of total EBA/MBA spearheads.

Group 7: “Special side looped”. Unusual configurations of loops on socket – single loop, asymmetrically positioned loops, etc.

References

Davis, R. 2012. *The Early and Middle Bronze Age spearheads of Britain*. PBF V.5. Stuttgart: Franz Steiner.

Group 8: “Incorporated basal looped”. Loops within the base of the blade. Normally longer than the developed side looped spearhead.

Group 9: “Projecting basal looped”. Loops projecting from the base of the blade onto the socket. Normally longer than the developed side looped spearheads

Group 10: “Protected looped”. Small loops in the lower quartile of the blade, adjacent to the midrib. Loops protected on the outer side by a small projecting flange.

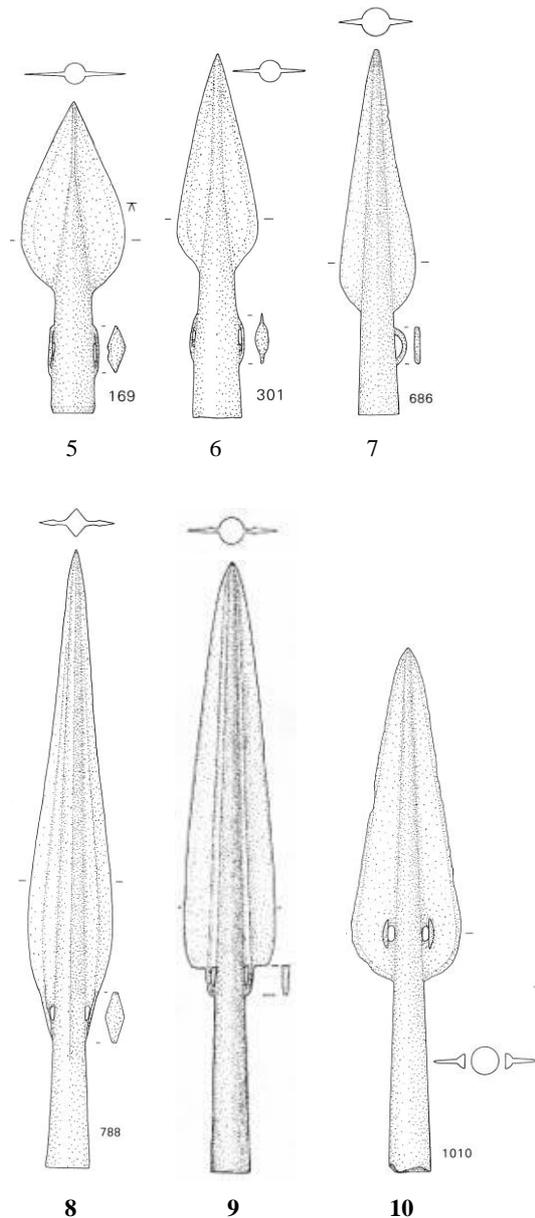


Fig. 4. Groups 5-10

Ehrenberg, M.R. 1977. *Bronze Age spearheads from Berkshire, Buckinghamshire and Oxfordshire*. British Series 34. Oxford: British Archaeological Reports