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Book Reviews

THE CLASSIFICATION OF CHALCOLITHIC AND EARLY BRONZE AGE COPPER AND BRONZE AXE-HEADS FROM SOUTHERN BRITAIN BY STUART NEEDHAM

Archaeopress Access Archaeology. 2017, 74pp, 16 figs (12 B&W, 4 colour), pb, ISBN 9781784917401, £22.00 (also available as an open access download)

Stuart Needham's 2017 Access Archaeology volume is based on his previously unpublished PhD thesis concerning the typology and classification of Chalcolithic and Early Bronze Age flat, low-flanged and long-flanged axeheads in central and southern England (Needham 1983). However, for this much updated and edited volume, Needham also took into account early axeheads from Wales and previous comparative research on early axeheads from Northern Britain carried out by himself and others (e.g. Schmidt & Burgess 1981; Needham 2004, 219–23). Needham surmises that on the whole, his classification scheme can be applied to Chalcolithic and EBA axeheads from Southern England and Wales, but not Northern Britain or Ireland, quoting lack of morphological coherence and other important regional differences between the three traditions.

Needham's typology of flat axeheads is based on 120 specimens, 97 of which are axeheads (nos 1–97) and 23 of which are so-called *axe chisels, chisels* or *stakes* (nos 98–120) which are smaller, narrower tools which the author attributes to none of his Chalcolithic, but two of his Early Bronze Age classes, namely Classes 3 and 4. They are dealt with separately from the flat axeheads in the final section of the discussion (p.36–9).

The author states right from the start that the two principal values that his typology is based on are the axeheads' condition and their external morphology. This excludes, for the most part, decoration and any other external embellishment, which Needham considers to be 'the norm for

Early Bronze Age flat axeheads' and therefore integral to their character. In his introduction he provides a short discussion of axehead decoration, embellishment and finish and in which classes and how frequently they occur.

The axeheads are then classified according to a set of criteria as outlined by the author in the introduction and his notes on the type series, that is sets of critical dimensions and body proportions. Included in these are parameters such as blade-, body- and butt width, body depth and body angles, overall length and dimensions of various external features such as flanges, butt shape and stop features (Table 1; Figure 1). In his set of criteria Needham wisely excludes the shape and angle of the blade tips, mainly because it cannot be said without absolute certainty if their shape was an original design feature or something added later through re-shaping and re-sharpening.

In the *Definitions of critical dimension ratios,* Needham clearly outlines the eleven basic ratios he considers for each of his 120 axeheads (ranging from the *Width of butt relative to width of cutting edge* to *Relative height of flanges*) which are essentially what his classification scheme is based upon. Needham briefly discusses terminology and the use of descriptive terms before delving into the introduction of his five principal- and 14 sub classes. The author explains very well his reasoning behind the temporal relations of the five classes (cf. p.8 and especially Figure 3) which is significant because he considers Classes 1 and 2 to be contemporary (differentiated by different hafting methods) and Classes 3 and 4 as having a notable overlap.

Needham's Class 1 and 2 are made from pure copper rather than copper alloy and are defined on the basis of having relatively broad butts. While Class 1 axeheads have virtually parallel sides/faces not converging towards the butt (the author describes them as 'thick-butted'), Class 2 axeheads have lenticular profiles, meaning they converge towards the butt (thus 'thin-butted'). As noted above, the author considers Classes 1 and 2 axeheads as contemporary and he argues that as with his other classes, the difference mainly lies within a variation of hafting methods. While Class 1 is a small class (three examples), axeheads of Class 2 are much more

numerous (18 examples). Therefore, given their numbers, Needham considers Class 2 axeheads the standard axehead form of the British Chalcolithic. Following on from this, axeheads of Class 3 (26 specimens), now made entirely from copper alloy rather than just copper, retain the lenticular profile with later specimens starting to exhibit low flanges. Furthermore, the butts of Class 3 axeheads are medium-broad and tend to become narrower with time. The 26 examples of Class 4 continue exhibiting a lozengic profile, usually with low flanges. They have a stop bevel which can be very subtle. Needham argues that there was substantial chronological overlap between Classes 3 and 4; Class 5 (24 examples) then succeeded Class 4. The author suggests that axeheads of this last of his Classes – Class 5 – exhibit moderate to well-developed cast flanges along most of their bodies. Also, their blades are often strongly expanded and the stop-feature is most often a stop bevel. Needham argues that *long-flanged axes* continued into the Middle Bronze Age as *stop-ridge long flanged axes* (cf. Sprockhoff 1941, 50; Schmidt & Burgess 1981, 89−90).

Needham then considers a small number of much neglected objects: *flat- and low-flanged chisels*, *stakes* and *axe-like ingots* (pp.36−9). The former are often 'diminutive' and he argues that they most likely functioned as fine woodworking tools which is entirely possible; ranges of tools for different purposes are known from later contexts, for example the Carleton Rode Hoard, Norfolk (http://carletonrodehistorygroup.co.uk/the-carleton-rode-hoard.html) and much more recently, the excavations at Must Farm, Cambridgeshire (http://www.mustfarm.com/progress/site-diary-38-announcing-our-finds/). Needham argues that these smaller tools are very similar to their contemporaries, the flat axeheads of Classes 3 (three examples) and Class 4 (10 examples). Due to them being a close relation of the larger flat axeheads, Needham rightly proposes the term *axe chisels* for these flat and low-flanged axeheads to distinguish them from the more conventional *narrow-tanged chisels* (Needham 1983, 254−9). Needham furthers his significant distinction of *axe chisels* from other, similar tools, with a brief discussion of *narrow-tanged chisels* and *bar-chisels/stakes* (p.38). He finishes his discussion of the various classes with what he himself considers to be the most problematic group, open to redefinition and re-interpretation: the group of *axe ingots* or *blanks* (p.38−9).

These are axehead-shaped objects of doubtful identification: definitely related to flat axeheads, but, as Needham states himself, their function is as yet unclear; they are, for now, tentatively identified as ‘ingots’ or ‘blanks’ but ideally, Needham argues, more research into the function and origin of these enigmatic objects is needed.

All 120 axeheads discussed by Needham are accompanied by outline drawings in the Type Series at the end of the volume. Usefully, the axeheads’ shapes can then be cross-referenced with period dates and metalwork assemblages in Figure 16 which will certainly prove to be a useful and straightforward tool for their dating and identification. The very basic outline drawings on pages 46−61 omit shading and any decoration or surface detail and only concentrate on the features needed for identification, as outlined by the author in the core of his work (ie, overall shape, shape of the butt, blade, sides and cross-sections). Table 4 should also prove to be a very helpful guidance: in this table the author gives suggested levels of the axeheads’ surface and completeness condition which are needed for the varying levels of identification and their assignment to one of the five classes outlined in his work.

In addition to line drawings of the axeheads discussed, Appendix 1 then represents a table of all 120 axeheads stating their provenances, collection and museum accession number or PAS reference as well as an illustration source and general notes.

At the very end of the book, on pages 73−4, the reader can find Appendix 2 which must not be overlooked by any means as it offers yet another very useful identification tool – a critical path analysis tailored specifically to the classes of axeheads discussed in the book – which, I am sure, will be especially handy for Finds Liaison Officers, museum curators, finds officers and specialists in commercial and university units, i.e. anyone who might at some point have to identify and date a Chalcolithic or Early Bronze Age axehead for a finds report or an exhibition text.

Conclusively, it can be said that this book is a treat for any prehistoric metalwork specialist working with classification systems and typologies. It is a very straightforward guide to the identification and dating of Chalcolithic and Early Bronze Age flat axes and related tools (which, admittedly, could have been improved if the volume had a Table of Contents at the start!). It is not a thorough in-depth discussion of them and neither does it claim to be. It does not include any discussion of the axeheads' findspots, assemblages, depositional contexts or locations, but Needham makes it very clear from the outset that this is a classification scheme, not a complete narrative of flat axes within their prehistoric social, economic and geographic contexts. However, it would have been nice if a map of the findspot locations of the 120 axeheads discussed had been included: it does often give a clearer, more accessible image of where concentrations of axeheads were found. Furthermore, the somewhat complicated-sounding definitions, new acronyms and abbreviations as well as the numerous criteria of the different typological classes may seem over the top to some researchers and the uninitiated, but as more seasoned students of Bronze Age axehead typologies and classifications know all too well, the devil is often in the detail. And this is exactly what Needham's classification provides. Quite often when we look at Bronze Age axeheads (and this is the same for flat, flanged and socketed axeheads as well as palstaves) the differences stand out visually, but are often difficult to put into words or an academic text. One might be able to 'see easily' that one axehead is slimmer or longer than another whilst also being wider or broader, but all this perception is subjective. What Needham provides, using an at first glance rather complicated looking system of different measurements, is really a straight-forward mathematical guide to why some axes can be classed together and why some of them cannot. This kind of knowledge and understanding of the underlying principles of a certain object type's classification system can only be seen, understood and explained by those who have studied a large corpus of material which the author clearly has. Experience is the first hurdle, but the second, admittedly much steeper hurdle then is to pass on this experience in a straight-forward way that can be understood and used by others in the field. This is exactly what the author did: I for one look forward to using this book for research as well as work; I am sure it will prove a very handy guide to have on hand and should not be missing from any Bronze Age metalwork specialist's library!

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