

BIBLIOGRAFIA

MONTEAGUDO, Luis, *Die Beile auf der Iberischen Halbinsel*, Munich, C. H. Beck, 1977, 312 pp., 162 pls. (= *Prähistorische Bronzefunde*, IX, 6).

The monumental series of studies of European prehistoric bronze implements which Professor Müller-Karpe has been editing at Frankfurt-on-Main has now received one of its largest contributions: a volume, prepared by Dr Monteagudo of Santiago de Compostela University, on the axe-heads and related implements of the Iberian peninsula. In so doing the author has not only crowned his labours of many years past but done a great service to all European prehistorians, for he has made available to them, for the first time, a full and carefully documented inventory of material which hitherto they could only know partially from as much of Spanish and Portuguese literature as was available to them and the publications of visiting specialists who have sometimes been hampered by limited time and facilities. Unlike them, Dr Monteagudo has been able to assemble, over a quarter of a century, a detailed inventory of nearly 2000 implements from isolated finds and hoards of all phases of the Copper Age and Bronze Age, with all the available information as to provenance and association, and with illustrations which have now been redrawn to the uniform style of the series by several draughtsmen at the Prehistoric Institute in Frankfurt. Only the fairly large collections of peninsular implements in the British Museum and the Ashmolean Museum, Oxford have been omitted from detailed study (though listed in outline) because, as it is understood, a typological and metallurgical study of these implements, by R. J. Harrison and P. T. Craddock, will soon be published in *Ampurias*.

Dr Monteagudo's approach, as befits an inventory of a specific group of implements with a development extending through at least 2000 years, is essentially typological rather than cultural, and in pursuance of this he has greatly elaborated the classifications which he laid down in earlier publications. There are, for example, now about a score of types of copper implements alone and nearly as many «variants» of these types, and a similar proliferation has occurred among the other types of axe-head, naturally culminating in palstaves, with about 60 types. A particular merit of this type of classification is that the author is able to accompany it not only with detailed distribution maps of each type but with a careful consideration of its function, which in many cases turns out to be that of chisel, hoe or adze rather than that of axe, *sensu stricto*, and in the least case there may be a need to distinguish between implements with a military or a domestic function. Moreover, many of the sub-groups which Dr Monteagudo identifies have a regional distribution—sometimes a very limited one—and this may well, as the author believes, relate to exploitation of particular local mineral deposits of the sort which are so numerous in the peninsula. He is, of course, undoubtedly right in believing that the great majority of the implements with which he deals were locally manufactured, but this does not mean that his study is inwardlooking. Although it is the objective content of this monograph which will above all make it indispensable for many years to come, it also

has great value because of the care which the author has taken to compare his types with those of neighbouring areas which might be supposed to have been in touch with the peninsula and to isolate implements which can be definitely regarded as imports. One can say that in general the comparisons are well informed and relevant, but one might add that difficulties arise from the comparison of Monteagudo's multitudinous sub-groups with the broader typological compartments with which prehistorians in neighbouring parts of Europe have generally been content hitherto, which in some cases comprise individual implements which seem to compare very well with members of several of Monteagudo's sub-groups and variant types, other than those which he has labelled «Lough Ravel» or «Ballybeg», for example, and the same might apply to some extent to the very numerous single-looped palstaves of the Iberian north-west and Biscayan France.

In general, our author does not pursue typological comparison far outside the field of axe-heads, even though the external influences represented by the limited numbers of implements thought to be imported, or directly inspired by imports, are really part of a cultural process which also involves swords, spearheads and other metal types and constitute, notably, the «Atlantic» sphere long recognized by Spanish as well as other European prehistorians. At least, however, he has illustrated the few hoards, mainly Atlantic in character, which contain other implement types beside axe-heads, and he points out, quite correctly as one must now admit, that the associated fragmentary sword at Hío (Pontevedra) belongs to the relatively early Late Bronze Age «Loire» rather than the later «Carp's Tongue» group, and this enables one to place the ribbed, single-loop palstaves in the hoard on the same chronological horizon as the closely related implements known from the Biscayan area of France. One must add, however, that this also applies to the socketed chisels in the hoard, which compare rather with those found in the Taunton-Penard-Bishopsland groups of south-western Britain and southern Ireland, belonging to the local Middle Bronze Age—Late Bronze Age transition *c.* 11-10th century B. C. Since the Hío examples are the only ones known from the peninsula it is reasonable to suppose that they are part of an intrusive «Atlantic» complex much earlier than the horizon *c.* 8-7th century B. C. which Dr Monteagudo suggests. One might say the same of the small «Plurien-Hademarschen» group of Monteagudo, from near Pontevedra, which is part of the same complex; indeed, it is becoming doubtful whether such implements should be regarded as derivatives from a Montelius III sub-group in Lower Saxony rather than prototypes. In another field, that of «trunnion celts» («Armchenbeile») of groups 18-22, which Dr Monteagudo rightly treats as part of a Mediterranean rather than an Atlantic contribution to west European technology in the Bronze Age, he has failed to note the implications of certain associations which this type has in north-western Europe. These show that the type first appeared in Britain towards the end of the Early Bronze Age (e. g. Ebnal, Balneil) and appears in the north Wales industry of Middle Bronze Age I (Voorhout hoard—which Monteagudo thinks has been dated too early because it contains a trunnion celt!). As this type undoubtedly comes from the south, some Iberian examples must be of much earlier date than the Late Bronze Age, *pace* Monteagudo, and it is in this light that one should consider the alleged association of one with flat axe-heads at Maella (Zaragoza) (No. 830).

In chronological matters Dr Monteagudo is, indeed, a conservative, orientated, for the Bronze Age proper, on old-established central European categories and cautious, in the Copper Age, in interpreting the few relevant C14 dates, or comparisons of what appear to be the earliest peninsular flat axes with similar forms from lands near the

eastern Mediterranean which might be regarded as parental. For this reason he seems to reject the idea, held by many besides this reviewer, that the appearance of stone axe-heads with rectangular section in the fully-developed Passage Graves of Portugal may reflect the influence of the earliest copper axe-heads with a similar section. He appears to be encouraged in this rejection by the fact that the flat-sectioned stone axe-head from the megalithic tomb of Carapito I, Beira Alta has «Neolithic» rather than «Copper Age» associations and has a C14 date of 2900bc (here, as elsewhere, our author makes no mention of the «correction» now generally admitted to be necessary, which would imply a true date around the middle of the 4th millennium B. C.). The difficulty here is that, as far as I know, there are as yet no C14 dates for the earlier stages of development of the megalithic tradition in the Alemtejo and one cannot estimate at all closely how much time-lag to allow for the spread of these traditions to a remote and poor area which merited at the distributional margin alike of triangular and concave-based arrowheads and engraved schist plaques. Recent thermoluminescence dates for southern Portuguese sites, however, admittedly vaguer and less reliable than C14 ones, seem to suggest a beginning for the Copper Age in that area much earlier than the middle of the 4th millennium B. C. and this, *pace* Renfrew, would make more sense of the very early dates obtained for some Breton Passage Graves. Moreover, Monteagudo's argument that the concentration of early flat axes in southern Alemtejo is related to deposits of copper ore in the area might be extended to the early types of Passage Grave found there: in this case, it may not be reasonable to dismiss all of the fairly numerous discoveries of early flat axes in the Passage Graves of southern and western Iberia as the result of secondary deposits; indeed, a fragment of such an axe was found in the «Neolithic» settlement at Pavia. One should not be hypnotised by these «Three Age» compartments, or seek to drag them from one end of Europe to another, *more* Müller-Karpe. None the less, Dr Monteagudo is prepared to agree that there might have been a pre-Millaran Copper Age, and accepts that the traditions of collective grave ritual and megalithic architecture may have been derived ultimately from the Copper Age of Palestine.

While Dr Monteagudo rightly maintains that the majority of peninsular copper and bronze implements must have been locally made, and constantly refers to copper ores and mines and deposits of tin ore in relation to concentrations of implement finds, devoting an introductory section to a survey of these resources illustrated by several maps, the student may be puzzled to find that the results of analyses of implements have not been included in the inventory, apart from a few which have been made since the publications of SAM in 1960 and 1968, although these results are, indeed, implicit in the distinction between copper and bronze implements in this inventory. Perhaps this omission is the result of a policy laid down for the whole series, but it would at least have been helpful to have given crossreferences to the very numerous analyses in SAM. This last omission may be explained in part by a certain pessimism about the usefulness of metallurgical analyses for the control of typological groups, but such references would have saved the student much labour, and even difficulty, in relating the SAM inventory numbers to Monteagudo's. Moreover, there can be little doubt now that students in the future will wish to relate metallurgical to typological groups in their search for actual industries with a particular distribution in space and time, defined in part by the use of particular metal groups and alloys, as well as changes in technical processes in successive phases in the Copper and Bronze Ages. Thus the analyses recently made by Craddock at the British Museum have confirmed SAM's distinction between an early copper implement group in Iberia, with little arsenic, and another with arsenic deliberately added,

and suggested that the former was the earlier, beginning well before the Bell Beaker phase, while the latter was characteristic of Bell Beaker metallurgy. This has some bearing in the origins of the Irish copper industry, which was characteristically arsenic-using and (*pace* Monteagudo) has left behind even more known copper implements, in proportion to the size of the territory, than the Iberian, even though it seems to have gone over to bronze earlier than the latter. Comparisons with Ireland are, indeed, instructive because the island, like the peninsula, can show comparatively few implements which relate closely in form to prototypes from lands adjoining the eastern Mediterranean: in each case local smiths soon developed their own forms.

The results of a recent survey of copper and bronze implements from Wales and the neighbouring parts of England, carried out by Dr P. Northover for the Board of Celtic Studies of the University of Wales are particularly encouraging from the point of view of correlation between typological and metallurgical groups, even as late as the Middle Bronze Age. They have demonstrated, for example, that even in this relatively small area, the market could be served by several industries, local and foreign; using distinct metal groups in the Early Bronze Age, followed by the emergence, at the beginning of the local Middle Bronze Age (*c.* 1450-1250 B. C.) of the unlooped «shield pattern» palstaves of the Acton Park industry, based upon the local copper of North Wales and distinguished from its contemporaries in north-western Europe by a precocious use of a small admixture of lead (locally available) for technical purposes, centuries before the adoption of a similar procedure in the Late Bronze Age I «Wilburton» industry of southern England. It turns out, moreover, that the identical «shield pattern» palstaves in the «Ilsmoor» hoard from Voorhout, Holland have a similar lead content and are likely to be imports from north Wales. It would be interesting, therefore, to have an analysis of the related (but not identical) palstave from Navarre (No. 898) which admittedly is of somewhat dubious provenance. Since the north Wales bronze smiths, like their contemporaries in Ireland, were also making socket-looped spearheads from the beginning of the Middle Bronze Age, their trading activities, which certainly reached across the English Channel may not be altogether irrelevant to the origins of Iberian double-looped palstaves, which Dr Monteagudo would not allow to appear before the Late Middle Bronze Age and treats as axe-heads rather than adzes or hoes; on the other hand the double-looped socketed axe-heads of northern Portugal are likely, as Dr Monteagudo says, to have had a local origin. All these cases of debatable origins, whether they relate to possible Atlantic connections, or ones with west central Europe, suggested by the finds in eastern Spain of waisted flanged axes or ones with median wings, might be settled by analyses. One should note, too, that the phenomenon of excessive lead content is one that affects, at about the same time, not only the double-looped implements of north-west Iberia, but the socketed axe-heads of Brittany and the areas flanking the Bristol Channel.

The observations just made are, of course, intended to be helpful and not to detract from the praise which Dr Monteagudo should receive for his long labours and the production of such a valuable work.—H. N. SAVORY.