

spärlichen Knochenmaterial vom Berg Carmel überwiegt bei weitem die Gazelle, neben der außer verschiedenen Hirscharten und dem Rind nur zwei Zähne von Capra vorliegen. Letztere ist aber auch im lokalen „Aurignacien“ bereits gut vertreten.)

Leider läßt sich über das zeitliche Verhältnis des Natufiens zur Ghar-i-Kamarband noch nichts brauchbares sagen. Dagegen darf man wohl als sicher hinnehmen, daß das südkaspische Spätmesolithikum jünger ist als die Ahrensburger Gruppe, die vom 9. bis ins 8. Jahrtausend v. Chr. reichte. Für die Ghar-i-Kamarband ergaben C 14-Untersuchungen für Schicht 9 (?) 6135 v. Chr. \pm 1500, für Sch. 11 8160 v. Chr. \pm 610, für Sch. 15/16 6595 v. Chr. \pm 510 und für Sch. 26/28 6154 v. Chr. \pm 1010. Derartige Unstimmigkeiten verbieten im Grunde jedes Arbeiten mit diesen Zahlen. Wenn Coon, dessen Daten P. übernimmt, daraus so auswählt, daß er das lokale Mesolithikum früher als 6000 v. Chr. enden und spätestens 8500 v. Chr. beginnen lassen möchte, so entspricht das zwar der Neigung vieler anglo-amerikanischer Forscher zu verhältnismäßig hohen Zahlen, doch könnte man — freilich ebenso willkürlich — auch das Datum für Sch. 26/28 herausgreifen. Dann wäre der Beginn der ganzen Serie am ehesten nach 7000 v. Chr. anzusetzen, womit man beim derzeitigen Stand der Dinge nicht in chronologische Schwierigkeiten geriete, ist doch keineswegs ausgemacht, daß die Kleinviehhirtenschichten (mit „soft-ware“ und „Sichelklingen“) älter sind als die frühesten Bauernkulturen des vorderen Orients, für die kein zwingender Grund vorliegt, mit ihrem Beginn vor das 5. Jahrtausend v. Chr. zurückzugehen. Zumal da die besseren Keramiksornten der oberen Schichten eventuell in das 3. Jahrtausend v. Chr. gehören, bleiben praktisch noch alle Möglichkeiten offen.

Göttingen.

Karl J. Narr.

Friedrich Holste, Die bronzezeitlichen Vollgriffschwerter Bayerns. Münchner Beiträge zur Vor- und Frühgeschichte. Band 4. C. H. Beck'sche Verlagsbuchhandlung, München 1953. 64 S., 4 Abb., 18 Taf. Preis: DM. 14,50.

From München Professor J. Werner continues to edit the admirable series of which the present volume is the fourth to make an appearance. In size, format, and the scale and quality of its illustrations, this series of concise monographs is all that could be desired. In the choice of subject, too, it offers a welcome respite from the everlasting study of field monuments; and the example set here is one that might be followed with advantage in other regions besides those comprised in the former territory of Bavaria.

The death of F. Holste on the Russian front in 1942 was a grievous loss to prehistoric studies in Germany. It is a signal honour to his memory that the present volume should be the third to be edited posthumously under his name. Such is the practical form in which the piety of friends and colleagues has found expression; and their scholarship has been the guarantee that his reputation was in safe hands. Here, once more, everything Holste had written has been printed without change; but the text was left incomplete, and the gaps have been filled in by Dr. G. Kossack. Others have contributed by providing illustrations, maps, or additional material for the typological lists, and in the editor's hands all this has been so organised that the result is a most satisfying study.

The ground covered is a good deal wider than the title suggests. The search for origins is pressed back in time to a period before the emergence of bronze swords of any kind, and in space to the recesses of the Carpathians. The distribution maps cover the whole of the intervening territory, besides all Germany, and the southern part of the Nordic area. The opening chapters are, therefore, relevant to the study of the origins of the bronze sword in general, both in Central Europe and in the North; while the main

topic is complementary to Holste's own fundamental re-examination (published earlier in the same year) of the Bronze Age as a whole throughout Southern Germany.

After a brief but useful reminder of the early development of solid-hilted swords in the Atlantic West, the author proceeds to an examination of "short swords with trapeze-shaped butt" – really dirks – which are in any event not later than Bronze Age B 1 (as defined for Austria by Willvonseder), and owe their special chronological value to an unusually wide distribution. Alongside these he ranges swords of what have now come to be known as the Sauerbrunn-Boiu group. It is the Boiu sub-group – the Keszthely type – which furnishes the earliest examples of the flange-hilted sword in Central Europe. Nestor's comprehensive article on this group in *Sargetia* 1, 1937 is not everywhere very readily accessible, so that the annotated list of finds and the distribution map, summarising Nestor's main conclusions, are especially welcome.

To this list one or two additions and corrections may be offered. No. 5, from the Danube at Buda-Pesth, is not in the Buda-Pesth Museum, but in the Museum of Archeology and Ethnology at Cambridge (Foster Bequest, ex Egger Collection). More examples derive from the Povegliano cemetery than the single specimen noted in the museum at Verona; at least one each of the Sauerbrunn and Boiu varieties are preserved in the Museo Preistorico at Rome. In addition to the sword from Donawitz noted in the museum at Graz (No. 18 in the list), there is a further admirable example of the Sauerbrunn type in that Museum from Wildon (Inv. No. 6142). A particularly handsome engraved specimen of the Boiu type, in perfect condition (768 mm. long), obtained in about 1919 from a Viennese collection – and now in a private collection in the British Isles – unhappily has no recorded provenance, though one day it may prove possible to identify it from the earlier illustrations. Finally, an unpublished example in the Ashmolean Museum (Evans collection) is stated to have come from "near Taranto" in 1891; as, however, the hilt of this piece is certainly a forgery, the provenance also must be suspect.

In the next chapter the author examines early forms of the solid-hilted sword in Hungary, and a fresh analysis of the sword types of the Middle Bronze Age there enables him to associate two small groups – named after type-specimens found in a grave-group from Au in Lower Austria, and in a hoard from Apa in Transylvania – together in a single phase contemporary both with the dirks and with the Sauerbrunn-Boiu group already discussed. If Holste is right, and the texture of his argument is very close, the recognition that all these forms are distinctive of a relatively short phase (B 1) at the beginning of the Middle Bronze Age marks a valuable advance.

The scene is now set for the introduction of the earliest solid-hilted swords in South Germany. These are found in the so-called Spatzenhausen type, which are held to be contemporary with the Hungarian types just discussed. To phase B 2 are assigned several varieties which, on grounds of form and decoration, seem clearly enough to be transitional between the Spatzenhausen type and the well-known South German type with octagonal grip. Ever since the publication of Reinecke's chronological system the latter have of course been regarded as the distinguishing type of his Bronze Age C, but Holste proceeds now to put the matter to the proof. It is found that the *Formenkreis* associated with these swords in fact comprises practically the whole inventory of bronze types hitherto assigned to phase B (here B 2) and C. In other words the dividing line drawn across the material by Reinecke is made to appear purely arbitrary, and to have no real basis in the material itself. This analysis, it must be said, is nevertheless in direct conflict with the closely reasoned results of Holste's own more comprehensive work on the Bronze Age of South Germany, which preserves the distinction between Reinecke's B and C; and there, for the time being, the matter must rest.

What emerges as certain is that South Germany – and in particular Southern Bavaria – was the original home and a centre of manufacture of this type. That another and quite distinct area of distribution exists in the North is well known, and is not easy of explanation; but at least priority of the South German pieces now seems secure.

As Reinecke long since showed, the swords with octagonal hilts were immediately succeeded by others of a kind known to-day as the Riegsee type. These swords are characteristic of at least one of the intrusive cultures, forerunners of the Urnfield culture, which penetrated into South Germany at the end of the Tumulus Bronze Age and form the constituent element of Bronze D. Reinecke saw the Riegsee type as a direct typological derivative of its predecessor. Holste here argues convincingly to the contrary, and shows that there was no continuous development, but that, like certain other new features to be observed in the Riegsee and analogous intrusive groups, the type must be based on Eastern, that is Danubian-Hungarian, influences. Swords of this class are remarkably uniform in appearance, and they have the merit of combining a wide geographical with a narrow chronological range. They emerge as a leading type-fossil of Bronze D, and their presence in Hungary also (as in the Aranyos hoard) should be capable of yielding useful cross-datings with the Bronze Age in that territory.

The text of this essay is short, and the exposition depends to a large extent on an admirable series of illustrations and of distribution maps, fully supported by documented lists of the material. For the purpose in hand the method could hardly be bettered, and results in a presentation both simple and direct. No one interested in the Bronze Age chronology of Central Europe can afford to ignore a study so valuable, both as a source-book, and as a stimulus to further research.

London.

J. D. Cowen.

Walther Schulz, Leuna. Ein germanischer Bestattungsplatz der spätrömischen Kaiserzeit. Mit Beiträgen von H. Grimm, O. F. Gandert und H. H. Wunsch. Deutsche Akademie der Wissenschaften zu Berlin, Schriften der Sektion für Vor- und Frühgeschichte. Band 1. Berlin 1953. 96 S., 51 Taf.

Die Gräber von Leuna gehören durch den Reichtum und die Bedeutsamkeit ihrer Beigaben zu den interessantesten Funden der spätrömischen Zeit in Mitteldeutschland. Ihre Auffindung erfolgte unter nicht gerade glücklichen Umständen. Bereits 1834 wurden in einer Kiesgrube offenbar mehrere Gräber entdeckt, deren Inhalt als angeblich geschlossener Grabfund später in das Britische Museum gelangte. 1917 kamen beim Straßenbau wieder 3 Gräber zutage, von denen zwei systematisch untersucht wurden und 1926 konnten nochmals 8 Gräber fachmännisch ausgegraben werden. Nachdem die Funde teilweise an verschiedenen Stellen veröffentlicht worden sind, hat W. Schulz in der vorliegenden Monographie dem ganzen Fundkomplex endlich eine würdige Gesamtveröffentlichung zuteil werden lassen. Es ist sehr zu bedauern, daß die merowingerzeitlichen Gräber, die sich in unmittelbarer Nähe der Bestattungen aus spätrömischer Zeit fanden, nicht in die Veröffentlichung einbezogen worden sind und daß es offenbar nicht möglich war, einen Gesamtplan der aufgefundenen Gräber herzustellen. Vielleicht wären aus den Grabrichtungen Aufschlüsse über die Beziehungen der früheren Gräber zu denen der Merowingerzeit zu gewinnen und die Bekanntgabe der aus diesen geborgenen Funde hätte u. U. Anhaltspunkte liefern können für die wichtige Frage, ob das Gräberfeld tatsächlich nur vom Ende des 3. bis in die Mitte des 4. Jahrhunderts belegt war oder ob es nicht gleich anderen mitteldeutschen Friedhöfen (S. 69) kontinuierlich auch während der folgenden Zeit in Benutzung geblieben ist. Die beigegebene topographische Skizze vermag leider weder vom heutigen Aussehen noch von der Oberflächenform des Geländes eine sehr deutliche Vorstellung zu vermitteln.