Reviews

Progress in Old World Palaeoethnobotany: A retrospective view on the occasion of 20 years of the International Work Group for Palaeoethnobotany. Edited by WILLEM VAN ZEIST, KRYSTYNA WASYLIKOWA & KARL-ERNST BEHRE. Rotterdam: Balkema 1991. 350 pages with six plates and numerous figures, tables and line drawings.

As the sub-title suggests, this book is a product of the International Work Group for Palaeoethnobotany (IWGP) which was founded in 1968. Its aim is to trace developments in palaeoethnobotany in the intervening period (nominally 20 years). The book is divided into two sections, the title of the first section is Thematic Subjects and of the second – Regional Surveys of Palaeoethnobotanical Research.

Thematic Subjects comprises six papers, five in English and one in German with an English summary. These six papers lead us expertly through the practicalities of planning, executing, interpreting and understanding paleoethnobotanical research.

The first paper is by Udelgard Körber Grohne and it has the modest title of "Identification methods". In effect it is a superb introductory guide to practical palaeoethnobotany which includes recognising and describing sediment types, sample preparation and the identification of various plant macrofossil remains - seeds, fruits, chaff etc in their various preserved states carbonised, uncarbonised, mineralised, dessiccated, and as impressions. The processes of preservation are also discussed before Körber-Grohne goes on to explain the identification of microfossils such as cell fragments, pollen and diatoms from archaeological deposits. The paper ends with a discussion of fabric - i.e. cordage, woven textiles, nets, and wickerwork. In each case appetising slices of information are supported by a wealth of well-chosen references, although one does wonder at the omission of even an oblique reference to the Troels-Smith method of sediment description.

Ulrich Willerding addresses the particularly important problems of "Presence, preservation and representation of archaeological plant remains". Willerding makes the point that although archaeobotanical analyses can give us a wealth of information about nutrition, economy, agricultural products and the environment, the macrofossil assemblages we find in our samples are not directly equatable with past situations. The assemblages are modified by characteristics specific to the plants, the sediments and human behaviour. We have to evaluate the probability that a particular species will be present initially in a deposit and then that its component parts – seeds, leaves etc. will survive given the type of preservation (carbonised, uncarbonised etc.) and the prevailing conditions in the sediment (waterlogged, well-aerated etc.). These evaluations are important both in research design (sampling strategies) and in the interpretation of our results.

The subject of "Sampling in palaeoethnobotany" is taken up and expanded in the next paper by Martin K. Jones. He approaches the subject at three levels - landscape, site and context. At the levels of landscape and site he discusses the problems of studying economic relationships between groups of people. At the levels of site and context he discusses the problems of selecting sediment for analysis with regard to both field practice and statistical considerations. His arguments are constructed within the framework of sampling theory and he emphasises the importance of research design and the way in which changing objectives change the requirements of sampling. He concludes his essay with a look to the future in palaeoethnobotanical sampling, emphasising the importance of ecological integration, collation of sampling strategies between different places and periods and of the inclusion of plant remains other than the traditional seeds and fruits in the paleaoethnobotanical database. This chapter is a must for anyone considering embarking on even the most modest of archaeobotanical projects.

Themes evident in Martin Jones's paper are taken up by Glynis E. M. Jones who explains at length how we can use "Numerical analysis in archaeobotany" in a pattern searching and problem-orientated approach to the subject. In doing so, she draws parallels with, and uses techniques commonly applied in, the closely-related field of community ecology. She then makes the point that many archaeobotanists are dealing with very complex problems with exceedingly large data sets and goes on to outline various ways in which we can analyse and process these data. She stresses the need for units of observation, analysis and interpretation to be vigourously defined.

Many archaeobotanists are uncomfortable in the presence of rigid definitions particularly with regard to the ecological behaviour of plants, as is evident in Behre and Jacomet's paper later in this book. Some also tend to be suspicious of large numbers and seemingly inpenetrable formulae. Glynis Jones has done more than most to make this increasingly important aspect of the subject more accessible. That is not to say that it will not require great application on the part of many researchers in order to become fully conversant with these techniques.

One of the most important papers in this book is Karl-Ernst Behre and Stefanie Jacomet's "The ecological interpretation of archaeobotanical data". Great progress has been achieved in this field during the last two decades, mainly due to the increased attention paid to the remains of non-crop plants, the improvements in techniques for the examination and identification of non-carbonised material and the development of specific

research strategies. Using examples largely from their own "home" research areas in Northern Gemany and the Alpine foreland, Behre and Jacomet's masterly synthesis describes the development and practice of reconstructing former cultural landscapes and environmental conditions through ecological interpretation of archaeobotanical data. They begin with a consideration of the natural vegetation around settlements sites and then examine various ways in which the modification of this vegetation by human populations can be studied and elucidated. The grouping of species on the basis of ecological criteria is given great attention and they conclude, as Willerding did in his paper, that the present is not necessarily a direct key to the past. A variety of factors decisively influence the subfossil record and also represent the essential difference between ecology and palaeoecology. As a result of this, Behre and Jacomet warn against the rigid use of phytosociological criteria and ecological indices in the ecological interpretation of archaeobotanical data. They advocate instead a more flexible approach which requires not only a detailed knowledge of plant ecology but also of earlier forms of exploitation and an understanding of the phytosociological changes which human activities have provoked. Behre and Jacomet then show their mastery of this art in discussions of forest exploitation and management, the development of pastures and meadows and the location and cultivation of fields. Case studies involving the reconstruction of past landscapes and environments are then presented from settlements on saltmarshes, floodplains and river clay areas in Northern Germany, on morainic landscapes in the Central European Lowlands and the loess plains, before moving on to the Alpine foreland and a consideration of palaeoecological investigations in towns. The amount and detail of the data presented is at times overwhelming and this chapter is no "easy read". However patience pays dividends and systematic reading leaves a very positive impression of what can be achieved through the co-ordinated problembased archaeological and palaeoecological investigations of waterlogged sites with an abundance of non-carbonised, non-crop remains.

The final paper in this section is by Willem van Zeist of Groningen who discusses "Economic aspects" of the archaeological plant record. Apart from a consideration of their possible role in revealing trade connections, Van Zeist avoids any consideration of the main crop plants – cereals, legumes etc. Instead he begins with a comprehensive review of the plant resources utilised by hunter/gatherer societies before moving on to considerations of subjects such as the history of fruit growing, trade in plant produce, evidence for the brewing of beer and other fermented beverages and the development of grassland and hay meadows. Each section is a small masterpiece in itself, supported by a wealth of relevant references.

The second section of the book – Regional Surveys of Palaeoethnobotanical Research – comprises nine papers, of which six are in English and three are in German with English summaries. As the title suggests, the papers are reviews of palaeoethnobotanical research in the Old World presented on a regional basis. The regions are as follows: The Near East – Naomi F. Miller, Southeast Europe – Helmut Kroll, Central Europe south of the Danube – Hansjörg Küster, Germany north of the Danube – Karl-Heinz Knörzer, East-Central Europe – Krystyna Wasylikowa and colleagues, South and Southwest Europe - Maria Hopf, Western Continental Europe - Corrie C. Bakels, The British Isles - James R.A. Grieg and The Nordic Countries - Hans Arne Jensen. Enormous amounts of data have been concentrated and then presented on a chronological basis for each region and it would be impossible to provide a summary here which would do justice to the individual papers. I will however make some general comments. It is obvious that the intensity of palaeoethnobotanical research various enormously from region to region. The European part of the former Soviet Union, for example, is almost a blank and other regions have been poorly studied. Some of the papers (such as those by Kroll and Knörzer) amount to little more than a catalogue with a location map and could have benefitted from being "fleshed out" both with information about sites and the plant species represented. Others are considerably more informative. Miller's review of the the Near east is fascinating in its problem-orientated approach and lucid text. Similarly James Greig's presentation of the British material is a mine of information and a joy to read. Closer to home, Hans Arne Jensen's chapter on the Nordic countries is a clear and comprehensive catalogue of finds, peppered with occasional information of a more interpretative nature. However, reading Jensen's paper directly after a detailed appraisal of Behre and Jacomet's contribution makes it abundantly clear, that with regard to both expertise and resources, we in the Nordic countries have some way to go before we can begin to interpret data and reconstruct landscapes and the environment in a similar fashion to our Swiss and German colleagues.

Despite some inevitable deficiencies, this is a very important book the total value of which is much more than the sum of its parts. Not least important are the copious references. This book is the key to modern palaeoethnobotany in the Old World and should be compulsory reading for anyone involved in the interpretation of past landscapes and environments. I would suggest furthermore that it should be on the bookshelf of every archaeobotanist, either practising or aspiring, and also of every archaeologist and historian with the slightest environmental bent.

David Robinson

A. DEGN JOHANSSON: Barmosegruppen. Præboreale bopladsfund i Sydsjælland. Aarhus Universitetsforlag 1990. 108 pp., 45 figs. English summary.

Scldom has a book on the Mesolithic arrived more opportunely from the point of view of research as the publication of the site of Barmosen in south Zealand. For the past two decades Mesolithic research has been concentrated primarily on the late Mesolithic. Cemeteries and well preserved find layers have tended to focus interest on the Ertebølle Culture. Even if important new results on this later stage are only to be expected, it now seems high time to direct research towards the initial stage of the Mesolithic. In this respect Barmosen takes a key position.

The sites of Barmose I and Hasbjerg II in SW Zealand were excavated in 1967–71 and 1971 respectively. A preliminary but nevertheless substantial report appeared as early as 1971 (Johansson 1971). This article gave rise to considerable discussion regarding the site's chronological position. The combination of early-looking microliths with flake axes of advanced shape invited differing opinions to the chronological homogeneity of the material. This discussion acquired significance for the understanding of settlement sites far beyond eastern Denmark, a question to which we will return.

Both settlements are bog sites. Both were of limited extent, and the excavation, at least of Barmose I, seems to have been complete. The area occupied measured 6×4.5 m with a large hearth about in the middle of the concentration of flint. The hearth was indicated by a considerable concentration of charcoal and by burnt flint. Parts of a floor of poplar bark was also found. The sharp demarcation of the flint suggests that a physical obstacle such as a wall had hindered further spread. To judge from the distribution of the flint the hut was of rounded shape covering an area of about 22 square meters, thus having a size and shape as well as a situation by open water in agreement with that of other bog sites from Boreal times. The publication contains a full account of the material, supported by many good illustrations.

The quantity of finds is considerable, as shown by the total weight of no less than 100 kg. This amount of flint may indicate repeated visits to the site, but it should not be forgotten that the technique used required a large amount of raw material. The greater part of the implements are made on flakes or coarse blades.

The large lanceolate microliths are of especial interest. The short retouch at the point comes mainly from the use of a micro-burin technique. In four cases micro-burins could be fitted together with microliths. Although the author does not use the term, others have described these as microliths of Vig type, after the well known discovery of a urus together with three similar specimens in a bog at Vig (Hartz & Winge 1906).

With one exception the axes can be classified as flake axes, and all of these have flat flaking over most of the surface. Some have damaged cutting edges and other indications of having been used for chopping. The spatial scatter of the axes and lanceolate microliths agrees, which appears to support their contemporaneity.

Organic material is relatively limited owing to the poor conditions for preservation. The only bone implements that could be identified was a fragment of a serrated bone point and fragments from the rear part of a number of others. Several scattered finds of serrated points south of the excavation suggested a nearby fishing ground.

Of the 20-odd lumps of resin found two showed the marks of teeth. The tooth-marks show that the pieces had been chewn by two children, one 7–8 and the other about 11 years old!

The faunal material indicates among others the presence of urus, red deer, roe deer, wild pig, and pike. However also domestic cow is recorded, which implies secondary disturbance. This may explain why three charcoal samples gave such different radiometric datings.

Hasbjerg II was found in a peat layer close to land. The distance from Barmose I is 4 km, but the site lies in the well known bog at Sværdborg, which is not connected with Barmose. A total excavation of Hasbjerg II was not possible. So far as can be seen Hasbjerg II was very similar in size and shape to Barmose, but the finds were considerably fewer, weighing 30 kg. In contrast with the previous sites Hasbjerg II produced some triangular microliths. The blade technique is also better than at Barmose I.

Barmose I and Hasbjerg II are in no way isolated discoveries. In his examination of the chronological position of both sites Degn Johansson refers to a number of other sites from southern Zealand, which he regards as belonging to the early Maglemose Culture.

On the basis of a number of east Danish sites the early Maglemose Culture is divided into four phases with the following characteristics:

Barmose phase, type site Barmose I. Large lanceolate microliths with short lateral retouch are the only microlithic form. Flatflaked flake axes are completely dominant, and the blade technique is very coarse.

Bjerby Enge phase, named after a site in Åmosen in central Zealand and without proper type site. Large microliths predominate, but some have retouch right along the side. Occasional isosceles triangles may occur. The axes include a few core axes. The boundary between flat-flaked flake axes and symmetrical core axes is diffuse. A characteristic trait is the occurrence of extremely long and wide flake axes. The largest was no less than 28 cm long, and some others have lengths of over 15 cm.

Hasbjerg phase, type site Hasbjerg II. Isosceles and somewhat asymmetrical triangles occur. Flat-flaked flake axes provide at least half of the axe material. Blade removal by pressure technique occurs.

Flaadet phase, type sites are Flaadet on Langeland and Nykær in south Zealand. Still half the microliths are large lanceolates. Core axes dominate, and among them narrow symmetrical specimens with narrow cutting edge are especially frequent. Blade removal by percussion and pressure are equally well represented.

As the C14 dates are few and inconsistent the Danish datings cannot be used. Therefore Degn Johansson compares the site with the datings from the north German peat bog complex at Duvensee.

The Barmose phase is regarded as older than Duvensee 8, which is dated to $9640\pm100 \rightarrow 9410\pm1107$ bp (Gob 1990) while the Bjergby Enge phase is contemporary with it. The Hasbjerg

phase is later than Duvensee 8, but earlier than Duvensee 2, which is dated to $9420\pm130 \rightarrow 9280\pm100$ bp. The final phase, Flaadet, is typologically contemporary with Duvensee 2 and Duvensee 1, which are dated to the interval $9200\pm300 \rightarrow$ 8755 ± 70 bp. In the author's opinion the Barmose phase should be earlier than the first half of the eighth century b.c. He suggests the interval 7700-7500 without explaining his reasons. According to Degn Johansson's terminology then only the Barmose phase can be regarded as Pre-boreal, for the boundary with the Boreal is defined by the appearance of hazel, which has been dated to 7,500 before Christ. However it should be noted that this event is dated differently in different parts of southwestern Scandinavia.

In a special digression it is asked how Pre-boreal flake axes compare in shape with the Ertebølle ones. From measurements Degn Johansen regards the differences as considerable. He points out the similarity of the early flake axes with core axes. The straight to slightly convex sides, the greater length and thickness, and the narrower cutting edge are characters which distinguish the early Mesolithic flake axes from those used in late Mesolithic times.

The book on the Barmose group has made accessible a well executed and highly informative study that can support various opinions on the earliest Maglemose Culture. The beginning of the Mesolithic in the southernmost part of Scandinavia and in the western part of the Scandinavian peninsula are two important sets of questions. The first is not given attention by Degn Johansson, but the second is.

With regard to the Late Glacial/Post-glacial boundary (the Younger Dryas/Pre-boreal transition) various courses have been suggested which the change from Late Palaeolithic to Mesolithic society may have followed. One thing is that the study of insect remains has shown that the climatic transition was rapid and pronounced (Lemdahl 1988). Even if the insect fauna indicates a fast rise in the temperature, this need not mean that the rest of the fauna changed as rapidly. An example is that C14 datings from the eponymous site for Ahrensburg - Stellmoor - with values between 10,140±105 and 9,810±100 bp lie very close to the geological dating of the transition from the Late Glacial to the Post-glacial. C14 dates have shown also that in Bornholm and Scania the reindeer survived into Pre-boreal times (Aaris-Sørensen 1988; Larsson 1991). It is reasonable that there existed a combination of Late Glacial fauna and new arrivals. With the transition there probably occurred an immigration of bison, wild horse, and urus (Aaris-Sørensen 1988). Somewhat later in the Pre-boreal appear red deer and wild pig, which are two animals especially typical of the Mesolithic environment.

Two alternative processes of change can be postulated. One is based on the material culture of Late Glacial times, which evolved. The other presupposes a faster transformation, in which the principal factor was a distinct break, based rather on influences from or the direct participation of continental communities already adapted to Boreal conditions (Fischer 1978).

At the site of Bonderup in central Zealand there are conditions which support a smooth transition from a Late Palaeolithic to a Mesolithic tradition (Fischer 1982). The finds came from a gytje layer pollen-dated to an early part of the Pre-boreal (Fredskild 1982). The finds included a point of Ahrensburg type, double-platform cores typical of the Ahrensburg culture, and a triangular microlith. There was also found a large flint implement that was seen as prototype of an axe.

If we travel south into the northern part of continental Europe, whose landscape was affected by the final ice sheet, the evidence suggests a faster and more dramatic change. Cl4 dates from the bottom layer at Friesack 4, west of Berlin, give $9680\pm70 \rightarrow 9560\pm100$ bp to the middle part of the Pre-boreal (Gramsch 1987). Another site in the same area, Friesack 27, is thought to be somewhat older, with a dating of 9850 bp (Gramsch 1991). This may be compared with the values given above of c. 10,000 bp for the Ahrensburg culture at Stellmoor near Hamburg. The Friesack material is entirely Mesolithic in character with no trace of Late Palaeolithic forms. Coarse lanceolate microliths dominate, but triangles are also present. This should indicate strong influence from the south, which entirely changed the material culture in the course of about a century. The osteological material from these sites shows no trace of tundra fauna. This can show that the area immediately south of Scandinavia passed early in the Pre-boreal through a rapid change not only of material culture, but also of fauna, while in south Scandinavia the change from the Late Glacial was slower. Does that mean that the introduction of Mesolithic material culture was slower? It can have been equally fast if one accepts a scenario placing less weight on the ecological factors. Here important problems have to be solved. The newest published dates can perhaps be used to support a retardation of the historical development in southernmost Scandinavia.

After comparison with the north German sites in Duvensee Johansson proposes a dating of 7700-7500 b.c. for Barmose I. The three C14 datings for the site give the interval 9240 ± 150 to 8330 ± 100 bp. The wide range of the dates is regarded by Johansson as indicating that they cannot be used to date the settlement. Five new accelerator datings give values between 9370 ± 90 and 8930 ± 90 bp (Fischer 1991). These seem to agree with the original earliest dating from the site, but are substantially younger than the datings adopted by Johansson.

Much remains to be done to relate Degn Johansson's conclusions with much of the rest of south Scandinavia. There are several possible explanations for the lack of finds from Preboreal times. A natural suggestion is that the population was low. Other possible explanations are based on culturegeographical or climatological factors. In a several investigations of lakes and bogs the water level was found to have been remarkably low in Pre-boreal and part of Boreal times (Digerfeldt 1975; Gaillard 1974). As locations by open water were preferred, the sites lay in areas that after the succeeding rise in the water level were flooded and sealed by organic sediments. The Pre-boreal and early Boreal shore zone lay so close to the present edge of the bog that it was less attractive for peat exploitation than the parts of the bog in which the Boreal and early Atlantic sites lay.

The Barmose group has more direct implications for our understanding of the earliest settlement of the west coast of mainland Scandinavia. This is an aspect in which Degn Johansson is much interested. The Swedish Hensbacka and the east Norwegian Fosna cultures are involved. These have not least been under discussion in connection with the first flate-axe chronology (Cullberg 1974: Welinder 1974). Degn Johansson points out that at any rate from central Bohuslän northwards the sites of the Hensbacka culture lie higher than the so-called regression minimum dated to c. 7600 b.c. Thus, based on certain deductions, the Hensbacka/Fosna culture is dated to the period 7800–7300 b.c. Degn Johansson has examined part of the material and thinks considerable similarities can be seen between the settlement finds of the Hensbacka culture in one of its middle phases, the so-called Djupedal phase, and those of Barmose I. He points out however the strong Late Palaeolithic traditions which mark the Hensbacka culture.

Degn Johansson regards the oldest Duvensee settlements, Barmose I, and Djupedal in Bohuslän as all expressions of the same techno-complex. Local groups start to appear only at the beginning of the Boreal. He points out the lack of sites, and postulates a material culture in the early Pre-boreal consisting of small monolateral tanged points in microlithic technique, simple flake axes like those of the Hensbacka culture's Toskärr phase, large lanccolates, and broad-bladed flake axes corresponding to the Hogen phase of that culture.

In this perspective it is right to consider the finds from the recently published settlements of the Myrvatn group in an area south of Stavanger in SW Norway (Bang-Andersen 1990). The sites are considered to be the result of short-term occupation. Site D produced hearths and a ring of stones interpreted as a tent circle. Here there was found a mixture of small tanged points, monolateral points, a hybrid between the monolateral point and the microlith, and lanceolate microliths. The find distribution suggests a difference between encampments with tanged points, with transitional forms, and with microliths. C14 dates give the interval $9610\pm90 \rightarrow 9420\pm80$ bp for samples from all the encampments. This can be taken as the time during which traditions from the Ahrensburg culture were replaced in SW Norway by a material culture corresponding to that of the Barmose group. The change would have agreed with the dating of the Barmose phase. There appears thus to be no clear retardation in the introduction of material culture into the Scandinavian peninsula. The environment at Myrvatn was periglacial, with the reindeer as the only large animal that could be hunted. Thus we find here a change in the material culture that cannot be connected directly with an ecological change. On the other hand it should be remembered that these were inland sites where the ecological conditions did not change so quickly as at the coast, where the base sites are supposed to have been situated.

The question remains whether the introduction of the Maglemose Culture into south Scandinavia was connected with an immigration of population with a form of society adapted to the new ecological conditions. If so, how extensive was the immigration? Was it only in certain peripheral areas that the late Palaeolithic traditions survived? Were reindeer hunted with lanceolate microliths in south Scandinavia too? Themes like immigration, innovation, and the importance of social and ecological factors in the mechanism of change need to be explored. Is it purely by coincidence that the questions that need to be asked when examining the introduction of the Mesolithic are so similar to those debated at its close, or are they only questions of general kind in the analysis of obvious cultural change? [Translated by David Liversage]

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IAN HODDER: The Domestication of Europe. Structure and Contingency in Neolithic Societies. Basil Blackwell, Oxford, 1990. 331 pp.

In his former writings, Ian Hodder has interpreted anthropological and archaeological data in an unconventional and provocative way (i.a. Symbols in Action 1982, The Present Past 1982, Reading the Past 1986). Symbols and structure are the keys to his understanding of the past. As with all good crime stories, one has to read most of his new book, The Domestication of Europe, to fully understand the title. Domestication is conceived of in a wider sense, meaning the process of gaining control over nature. Thus "domestication in the social and symbolic sense occurred prior to domestication in the economic sense" (p. 31). The book also comments on structuring human society from the beginning. However, the focus of the book is on the development of society during the Neolithic periods in Europe. It is not a general survey of the European Neolithic but a selection of 'case stories', beginning in the Early Neolithic in the Near East, Anatolia, and South-East Europe, continuing through Central and Northern Europe and ending with Northern France and Great Britain. The beginnings of cultivation and animal husbandry and the emergence of early permanent settlement take us from Natufian and PPN sites in the Levant to Catal Hüyük and Hacilar in Anatolia and Lepenski Vir on the Danube. Arriving at the Early Neolithic and Chalcolithic of South East Europe, with ample evidence of structured settlement, houses, and symbolic expressions within the domestic sphere, Hodder introduces the concept of the 'domus' (lat. house), later to be contrasted with the 'agrios', meaning wild, and the whole rest of the book goes on to demonstrate how the domus principle was exercised, transformed, and widened through later stages of the Neolithic as opposed to the agrios. A third concept, the 'foris', meaning the outside or doorway, is used mainly in the chapters dealing with the Central European Neolithic referring to the emphasis on boundaries and entrances. The concepts of domus and agrios function as the mesh through which the evidence is filtered throughout the book. For instance, Hodder describes how the domus symbolism was transferred from the Bandkeramik long houses to the earthen long barrows of Central, Northern, and Western Europe. This symbolic transformation coincided with the change from large settlement compounds of the late Bandkeramik groups to the more scattered settlement, probably based on smaller family cells, of the ensuing communities of *i.a.* the Funnel Beaker Culture. The domus symbolism was carried further on in the lay-out and organisation of the megalithic monuments, causewayed camps, and - in the West - henge monuments as the most outstanding features of the domus. Hodder plays a second and parallel theme in the book concerning the roles and division of space between the sexes. This division is to be found in both domestic and funeral contexts.

The way the book is arranged it covers roughly the same story and geographical area as Childe's *The Dawn of European Civilization* but it presents a very different archaeological approach and goes far beyond the characterization of archaeological 'cultures'. *The Domestication of Europe* is a stimulating, intelligent, and thought-provoking account written by an author who, in his own words, allows himself of highly imaginative reconstructions. The book is not a conventional text-book but rather an exercise in modelling and interpreting the past. There are a lot of questions asked and possible answers given. The questions "centre on changes in symbolic structure which correspond with other types of change" (p. 16). The use of linguistic oppositions such as the domus and the agrios makes it possible to include widely spaced and apparently different phenomena in the same conceptual framework.

I find it difficult to argue with the book because of its structure and logical consequence. However, reading through the chapters one gets the feeling that the domus symbolism is carried too far. The arguments become constrained because all observations are related to a few, preconceived concepts. Another objection is more specific and concerns the role attributed to the Corded Ware/Single Grave Culture:

There is a certain bias in the book because of the elaboration on the theme of the expansion of the domus symbolism. The author is not occupied with such aspects as the decline of the Neolithic societies used to illustrate the cases or the transformations leading into the world of the Bronze Age - exept where Britain is concerned. The case of Great Britain, supported by the evidence from northwestern France, shows an increasing input of labour throughout the Neolithic and into the Early Bronze Age in creating ever larger ritual manifestations (p. 265 and fig. 9.7). In this respect Britain is rather unique compared with the rest of Europe. The culmination of the process occurred during the Beaker Period in Britain, and Beakers are in fact associated with most of the major monuments. Hodder states that "Overall, therefore, Beakers emerge within the context of existing structures" (p. 268). The whole idea of cultural transformation in the Beaker Period, which includes the rise of a warrier elite as reflected in individual graves in contrast to the former collective burials, seems to have affected the author's attitude towards the role of the Corded Ware and Bell Beaker cultures in general. The reservations on page 305 towards migration as a possible explanation for the advent of the Corded Ware complex is an expression of the same attitude. Migrations or not, we may well accept the insular evidence but can hardly ignore the continental evidence, which in my North European perspective shows a much more radical change from the old domus-oriented megalithic culture system to the expansive, individualistic phase of the Single Graves. It is impossible to adhere to Hodder's claim that "It is as if there is really nothing new in the Scandinavian Corded Ware. All the cultural principles are old ones." (p. 218). Probably the Corded Ware/Single Grave phenomenon constitutes the most radical break in cultural development in Scandinavia since the beginning of the Neolithic. This is contrasted with the situation in Britain where no Corded Ware interrupted the growing process of social integration which we may assume was based on the old idiom of the expanding domus. In Northern Europe the old complex cultural system of the Funnel Beaker Culture collapsed some time before and about 2800 bc, when the Single Grave and Battle Axe cultures made their appearance. This collapse released the enormous energy formerly spent on ritual activities such as the building of megalithic graves and causewayed enclosures. As a consequence, settlement and economy expanded

beyond previously known limits, and a new social order was created – and new interpretations of the domus and agrios principles may have been adopted.

P. O. Nielsen

BENGT ODENSTEDT: On the Origin and Early History of the Runic Script. Typology and Graphic Variation in the Older Futhark. Acta academiae Gustavi Adolphi 59. Uppsala, 1990. Distributor: Almqvist & Wiksell International, Stockholm, 188 pp.

1990 has been a prosperous year for runology. The Third International Conference on Runes and Runic Inscriptions was held in Norway, and in Sweden no less than three doctoral dissertations appeared, two in Uppsala and one in Lund, and at the end of the year this publication by Bengt Odenstedt, professor in English in Umeå. Through systematic investigations of the various forms of the older runes it is Odenstedt's aim to throw some light on the early history as well as the origin of runic writing. O. concentrates on and tries to isolate the different variants (allographs) of the 24 runes of the older futhark, their geographical and chronological distribution, deliberately leaving out as far as possible the difficult problems connected with interpretation, content, and context. After a short introduction, describing aims, methods and material, chapters 2-19 are devoted to analyses of the single runes with tables, showing the form of approximately 275 allographs, with a summary and conclusion concerning typology, original form, and genetic development of each rune. On this background the "position of the continental and Anglo-Frisian runic forms in the history of the older futhark" is discussed, compared with the Scandinavian variants and the "author concludes, on the basis of greater variety of forms, that the runic script was used earlier and for a longer period in Scandinavia than elsewhere" (Abstract) and "that people on the continent learnt the runic script later than the Scandinavians. It is reasonable to assume that knowledge about runes came to the continent from Scandinavia, perhaps in the fourth century." Later "contacts with Scandinavia ceased and runes developed independently in the two areas; hence the absence of late Scandinavian features on the continent" (p. 133). In the final chapter (pp. 145–173), which is a (slightly) revised version of "Om ursprunget till den äldre futharken", Saga och Sed 1984 (1986) pp. 7-116, O. after a short survey of the main theses about the origin of runic writing, argues for the opinion, that runes were created at the beginning of our era on the base of the Roman alphabet, c.f. H. Pedersen and F. Askeberg, and not for practical purposes, which was the point of view of Erik Moltke. The older runes were chiefly used epigraphically, and like Anders Bæksted in "Målruner og troldruner" (1952). O. is inclined to consider the runic script "a luxury which Germanic people had seen Romans practice and which they no doubt envied and tried to imitate, with very little success." (p. 173).

According to O.'s preface "no systematic investigation of the various forms of the older runes has so far been made" (p. 9). One would however be inclined to think, that a discussion of Richard L. Morris: "Runic and Mediterranean Epigraphy" (Odense

University Press 1988) would be relevant. Here the forms of the runes are discussed in connection with the thesis that runes were created some centuries B.C., and were based on archaic Greek or Latin alphabets (cf. review by Klaus Düwel, Germania 69, 1991, pp. 230-234) – i.e. the theory, which repeatedly, mainly on linguistic premises, has been advanced by Elmer H. Antonsen (lately for instance in "The Origins of Writing". Red. Wayne Senner (University of Nebraska Press Lincoln and London 1989) pp. 137-158), and which is dismissed rather shortly by O. (pp. 147-150) - with regard to the linguistic arguments that the two e-runes mirror a Proto-Germanic sound-system (p. 150). However, further reading and a closer examination of the bibliography soon reveals that O.'s manuscript must have been finished about five years before the date of printing, a fact which ought to have been mentioned in the preface, since the book is not up-to-date, either for important literature on the subject or for, for instance, the new finds from Illerup and Vimose. The Illerup chape is missing, and the important Vimose lancehead with the same inscription as the two lanceheads from Illerup, though mentioned (p. 113) is not included in the list of inscriptions investigated (pp. 17-23) and does not count in the statistical tables or in the conclusions, i.e. pp. 68, 118, 130. As a whole it is a question whether the important material from the Illerup deposits (and the obvious connection between Illerup and Vimose) was in fact wholely integrated and all (earlier?) conclusions reconsidered.

In my opinion in principle the methods and conclusions in the first part of the book need some consideration. It is no doubt true that "thorough knowledge of the various forms of the runes is after all the basis of all runological research" (p. 10) but the definition and selection of this apparently neutral basic material is certainly not without problems. The systematic investigation is based on the study of published photographs of the inscriptions in the standard publications, with the aid of a powerful magnifying glass (p. 14) and the descriptions, mainly in Krause-Jankuhn 1966 (Die Runeninschriften im älteren Futhark von Wolfgang Krause mit Beitragen von Herbert Jankuhn. Abhandlungen der Akademie der Wissenschaften in Göttingen. Philologisch-historische Klasse. Dritte Folge, Nr. 65, Göttingen, Vandenhoeck und Ruprecht 1966) obviously in general without any attempt at personal investigation or use of comparative material, for instance Carl J. S. Marstrander's important "De nordiske runeinnskrifter i eldre alfabet. Skrift og språk i folkevandingstiden. I. Danske og svenske innskrifter". Viking 1952, pp. 1-277, or the investigation of the much debated Grumpanbracteate, Vg 207, Sveriges Runinskrifter, (which is the basis for my statement, questioned by O. p. 117). According to O. very little could be found in the runological literature concerning graphic typology and variation, but O. has not been aware of Elisabeth Svärdströms introduction to Västergötlands Runinskrifter, which appeared 1970, just as he has overlooked the important informations presented in the article, "Runerne", sp. 937 ff., in Danmarks Runeindskrifter (1942), ("which has surprisingly little to say on the subject of runic forms" (p. 13)). O.'s material is rather limited, according to his own account, it excludes 1) "forms that cannot be seen clearly in the photographs", 2) "all cryptic or individual forms which cannot be related to known

runic forms", 3) "runic forms the transliteration of which is disputed" (pp. 14 f.). The forms included derive from a selection of 178 unquestionable runic inscriptions, listed on pp. 17-23, but whole groups are missing, for instance all the English runic coins "because good photographs or drawings of them were not available to me" (p. 16), and which is most remarkable and regrettable, the important group af bracteates is also omitted, "because they are frequently impossible to interpret and often contain a number af highly individual or distorted runic forms" (p. 16). The fact that all bracteates except three futhark-inscriptions and the Undley bracteate are excluded - i. e. such perfect inscriptions as the Seeland 2 and Tjurkö 1 - to my opinion much reduces confidence in O.'s results. For instance the "unique" j-variant of the Thames scramasax (pp. 73, 74) can be found on the Seeland bracteate, so the conclusions concerning the j-rune are wrong. Further, a subjective evaluation took place when O. copied each rune that could be "distinguished and identified" (p. 14). Though O. is aware of the problems of different writing technique on wood, metal, and stone, he is comparing allographs all reproduced on smooth paper and selected, according to O.s subjective judgement as typologically important; for instance with regard to rounded or angular forms. But when is a particular rune a sort of poor abortion and when a proper child of the writer's intention? I have never seen the j-rune from the Krogsta inscription rendered like O.'s version (pp. 71, 73). It is evident that the e-rune on the second silver shield handle mounting from Illerup has two horizontal straight branches, but to my opinion its writer just cut twice, just as he did in the right top of the g-rune. This e-rune could by no means be normalized to a form like O.'s, and is probable not a missing typological link at all (pp. 97 f., 99, 167).

Though indeed – as also admitted by O. – the statistical figures given are not quite exact "they should nevertheless be sufficiently correct to reflect the proportions between various forms in different areas and periods" (p. 11). This seems somewhat doubtful, especially since the bracteates are missing and it implicates that the datings could be taken to be safe. The 178 inscriptions are listed in chronological order from 175 to 750, mainly according to Krause-Jankuhn 1966 without further considerations and no attempts at more detailed investigations, i.e. concerning archaeological datings - "the overall chronological picture should be sufficiently correct." (p. 17). This method of dating is relative and to a very high degree based on runologicaltypological considerations, and in details far from safe, at least concerning the stone inscriptions. It seems somehow begging the question to come to conclusions on the typological development of the rune symbols on a material dated in this way. It is no wonder that most of O.'s results accord rather well with the generally accepted views. Besides, the ethnic and geographic distribution involves another problem. Apart from the English and Frisian inscriptions, O. operates with 99 Scandinavian, 6 Gothic and 44 Continental inscriptions (p. 16), without specification, and it is a matter of discussion which are these 6 Gothic inscriptions. But in the further classification of these inscriptions, he operates with an early Scandinavian and Gothic group c. 175-c. 400 (A), a Scandinavian group (B) c. 400-c. 750 and a

group of *continental* inscriptions (C) dating from c. 400 to c. 750. Thus the 5 early, unquestionable continental inscriptions, according to the list: Kowel, Rozwadów, Dahmsdorf (on spearheads c. 250), Letcani (distaff, c. 300-400), and Pietroassa (ring, c. 350-400) in a way disappear with their special variants in the survey (Table 55, p. 130), and O. leaves them out of account when he says (p. 131) "there are no continental inscriptions that are older than 400" and concludes: "It is reasonable to assume that knowledge about runes came to the continent from Scandinavia, perhaps in the fourth century" (p. 133).

In a Scandinavian context it is useful that O. tries to shed more light on the Anglo-Frisian runes, though his observations are preliminary and it might be questioned, if not too much importance is attached to the disputed Undley bracteate, earlier treated by O. (and according to John Hines manufactured in Schleswig-Holstein c. 450-480 and brought by the Anglo-Saxons to England). It seems to document the early remarkable innovation in the English (and Frisian) runic alphabets, the occurrance of a new o-rune exemplifies the introduction of new vowel symbols necessitated by sound-changes. It is noteworthy that O. apparently is not aware of the possibility of a certain correlation and competition with the Roman letters due to the growing use of them for the vernacular, in this need for more signs or, for instance in the predominance of the closed "conservative" r-variant (p. 40). Only in the case of the s-variant on the Thames scramasax is an eventual influence from Roman bookhand mentioned (p. 135). It is remarkable that O. never comments on the main difference between the English-Frisian creation of new runes and the Scandinavian reduction from 24 to 16 more ambiguous symbols, no doubt also due to linguistic developments. According to O. the older futhark in England was still flourishing between 650 and 750, "while it was a dying script in Scandinavia and on the continent." (p. 136). This statement seems somewhat out-dated. In Scandinavia there was, due to many new finds, clearly a transitional period with continuity between the two systems. I shall not go further into particulars, though several other details could be discussed as well as some of the conclusions drawn on a rather unsafe basis, which also leaves the non-specialist reader with very little possibility of control.

Anyhow, with this attempt at a purely typological approach concentrated on the variants of the runic forms, Bengt Odenstedt has delivered a thought-provoking contribution to the discussion of the intricate questions of where, when and why runic writing started and how it developed. His comparison of runes with Roman capital letters in the final chapter (pp. 145-173) needs further consideration from an alphabetic-historical point of view, though the assumed original forms (p. 146) in my opinion are no more in accordance with what was actually found in the previous chapters than the "normal" forms usually given in runological handbooks (p. 11 – with a wrong s-variant compared with Krause-Jankuhn 1966), and the argumentation for the rounded forms as secondary to the angular tends towards arguing in a circle. However, considering the early inscriptions from the Danish area, evidently belonging in a cultural context which was strongly Roman-influenced but which do not really indicate practical purposes, O.s viewpoint (p. 173) ought to be

discussed, that runic writing was created as an imitation of Roman epigraphy, poorly developed during the first centuries A.D. in a mainly oral community, and exercised chiefly epigraphically by a few "rune-masters", but also used for magical and decorative purposes.

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