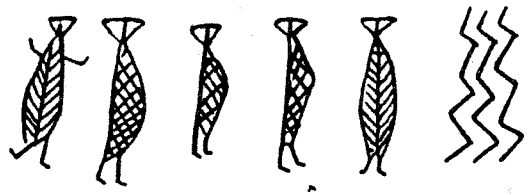

MESOLITHIC MISCELLANY

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UNION INTERNATIONALE DES SCIENCES PREHISTORIQUES ET PROTOHISTORIQUES
COMMISSION 14

Volume 4, Number 2 *November 1983*

IMPORTANT ANNOUNCEMENT:

III INTERNATIONAL MESOLITHIC CONGRESS

The Third Mesolithic Congress will be held in Edinburgh, 1-6 April 1985. A preliminary notice and call for papers has been mailed. A tentative paper title and a 100-word abstract are due 31 January 1984 from those wishing to attend the congress. A copy of the proposal form may be found at the end of this newsletter. Accomodations and all conference sessions will be at Carlyle Hall, a hall of residence of the University of Edinburgh. Registration, food and lodging for the congress will be approximately £120. If you have not yet received information, or know of others who would like to attend, please contact Clive Bonsall, Mesolithic Symposium, Department of Archaeology, 16-20 George Square, Edinburgh EH8 9JZ, Great Britain.

FORMAT OF THE NEWSLETTER

European subscribers to Mesolithic Miscellany are receiving the newsletter in a new size with this issue. Clive Bonsall has developed and arranged for this new format. Although the page size is reduced (A5), there are a number of advantages:

1. The newsletter is cheaper to produce and mail.
2. The number of pages can often be increased without additional cost.
3. There is less risk of damage in the post.
4. The newsletter has a more professional appearance.
5. Special binders are available which would hold 10-15 issues of the newsletter in the new format. If there is sufficient interest, binders could be customized with the words Mesolithic Miscellany on the spine.
6. Figures may receive a full page because of the reduction and for this reason the quality of illustrations should improve.

If you have strong feelings, either positive or negative, regarding the new format, please let us know. Depending upon reaction to the European edition, the same reduced format may be adopted for the American audience.

The end of the year is upon us and subscriptions to the newsletter should be renewed as soon as possible. Subscription costs and procedures are outlined on the last page of this issue.

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UNION INTERNATIONALE DES SCIENCES PREHISTORIQUES ET PROTOHISTORIQUES

XIth CONGRESS - SOUTHAMPTON AND LONDON

1 - 7 SEPTEMBER 1986

"This meeting of archaeologists and others who are interested in the past is to be a truly international one. Most of the main subjects to be discussed should be of interest to people all over the world. The working sessions will take place at the University of Southampton and a significant event will be the opening of a major new exhibition at the British Museum.'

"The themes of the Congress will be based on pre-circulated papers so that the five days of meetings in Southampton will be entirely devoted to discussion."

Major Themes include:

Cultural Attitudes to Animals Including Birds, Fish and Insects
Archaeology and the Very Remote Past
Archaeological "Objectivity" in Interpretation
Interactions between "Central" and "Peripheral" Cultures
Social and Economic Contexts of the Adoptions of Similar Technological Elements in Different Parts of the World

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RESEARCH REPORTS

Looking for Early Man in Ireland
Bally Lough Archaeological Project

Project Directors: Marek Zvelebil and Stanton W. Green

This summer we began a systematic survey of the Waterford estuary and the adjacent Belle Lake (Bally Lough) areas in County Waterford, Ireland. Our principal aim is to locate mesolithic and early neolithic settlement for the future study of the colonisation of Ireland, development of foraging economies and the transition to farming. The project is being jointly sponsored by the University of South Carolina, the University of Sheffield in cooperation with University College, Cork, and Professor Peter Woodman. The project is coordinated with Professor Woodman's comprehensive study of early settlement in southern Ireland.

Colonisation of Ireland and the spread of farming have for a long time been a subject of debate among Irish prehistorians (for summary, see Woodman 1978, 1981, 1982). One factor in this debate has been a near absence of finds dating to the mesolithic/early neolithic period from the southern half of Ireland. Although recent survey by Woodman in the Youghall area ascertained the presence of mesolithic tools there (personal communication), large areas of southern Ireland remain where the early holocene occupation is yet to be demonstrated. The Waterford area has mever been systematically surveyed - in fact very little survey has been done of any sort. Our survey therefore helps to create a comprehensive set of data about the early settlement of Ireland which can be used to resolve fundamental questions in early Irish prehistory.

In addition, we hope that the data derived from the survey can be used for studies with wider implications as well. As an island, Ireland presents a simplified case for modelling colonisation processes, for assessing population dynamics of - on present evidence - fairly isolated population and for analysis of population-resource relationships as a background to the replacement of foraging by farming. With good potential for palynological studies, the area is also suitable for the study of the development of early farming.

During the first field season (summer 1983) we carried out a land use survey, enabling us to plot the distribution of arable fields in the Waterford area and to record their systems of rotation. Based on this information, a systematic surface collection survey will be carried out in March-April 1984, during which we hope to sample the entire project area (some 100 square miles).

We also did some preliminary fieldwalking with encouraging results. We located 29 lithic sites, ranging from isolated finds to sites with several hundred lithic pieces. Materials recovered include both artifacts and waste flakes made of flint, rhyolite and (perhaps) quartz. Most of the assemblages are derived from low quality flint pebbles occuring locally in the glacial drift. Initial examination indicates that most of the artifacts were made by bi-polar technique. Because of the small size of the flint pebbles, most of the artifacts have large

areas of cortex; the range of lithic forms includes scrapers, parallel blades and flakes, some of which possess distinct working edges.

So far, the assemblage is poor in type fossils or other diagnostic artifacts. It appears that we are dealing with an idiosyncratic industry using small flint pebbles as the main source of raw material; this imposes constraints on the lithic technology employed and on the range of lithic forms and tool types. Although similar pebble-based industries dated to the late mesolithic and neolithic were found along the western coast of Britain (Jacobi 1980), their connection to the Waterford industry remains tenuous. For a more accurate dating and characterization of the Waterford finds, we need to enlarge our sample, currently numbering at some 700 artifacts. Even though it seems certain that the presence of man in south-east Ireland has been extended by some 2,000-3,000 years beyond the well-established later neolithic occupation (3rd millennium b.c.), more decisive results must await our Spring survey and its subsequent analysis.

NOTE: A limited number of places is available for students interested in participating in the Spring survey (18 March - 21 April). Room and board is provided; students must find their own transportation to Ireland. Applicants should write to S.W. Green, Department of Anthropology, University of South Carolina, Columbia, S.C., USA 29208; or, if in Europe, to M. Zvelebil, Department of Prehistory and Archaeology, University of Sheffield, Sheffield S10 2TN, England.

M. Zvelebil
Sheffield

References

Jacobi, R.M. 1980. "The early Holocene settlement of Wales." In Culture and Environment in Prehistoric Wales, J.A. Taylor (editor), pp. 131-206. British Archaeological Reports, 76.

Woodman, P.C. 1978. The Mesolithic in Ireland. British Archaeological Reports, 58.

1981. "Problems of the Mesolithic survival in Ireland." In Mesolithikum in Europa, B. Gramsch (editor), pp. 201-210. Deutscher Verlag, Berlin.

1982. "The postglacial colonisation of Ireland: the human factors." In Irish Antiquity, D. O'Corrain (editor). Tower Books, Cork.

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Stone Age on the Danish Sea Floor

Through the decades, Danish museums have received stone age artifacts which have come up from the sea floor. Some have been brought to the surface by fishing, others by digging or the pumping of sand. More recently, the number of finds from shallow water has accelerated thanks to the rapidly growing popularity of scuba diving.

The submerged land

Due to the low level of the ocean in the late-glacial period, Denmark was at that time part of a continuous lowland stretching from England to southern Sweden. With the melting of the glaciers, the ocean gradually transgressed much of this lowland. Since the close of the mesolithic in Denmark, the distribution of land and water has been almost as it is at present. The major exception is caused my a minor tilting of the earth's crust. Thus, in northern Denmark, the late mesolithic coasts have been raised as much as 13m above present sea level; while in southern Denmark, it can be found more than 2m below the present water surface.

Numerous settlement finds along the rivers and bogs of the present day inland witness a seemingly continuous habitation from the Hamburgian (ca. 10,000 b.c.) onward. Equally attractive locations for the late palaeolithic and mesolithic must have existed throughout the submerged land. Consequently, large numbers of former inland settlements are to be expected from the bottom of the Danish sea territories. At the present moment, however, we have only a few indications (e.g. Fig. 1) to support this point of view.

The beginnings of coastal habitation in northern Europe

Thanks to the uplifting of northern Denmark, we have good opportunities to investigate the late mesolithic coastal habitation of this part of the country. From the time of the Ertebølle Culture (ca. 4,500-3,100 b.c., uncalibrated) a very intensive habitation is documented. The same seems to apply to the time of the Kongemose Culture (ca. 5,800-4,500 b.c.). In terms of parallels to the ethnographic present, the concept of simple band societies seems less appropriate than for example the complex societies of the Northwest Coast Indians of North America.

From the time prior to the Kongemose Culture, no positive evidence of coastal settlement is known from Denmark. But, from all over the Danish inland, a rich habitation is documented as far back as the late palaeolithic. The settlements of the inland so far published all represent small seasonal camps. Positive evidence of contacts between these inland sites, witnessed by bones of marine mammals, reach as far back as the time of the Maglemose Culture (ca. 7,000-5,800 b.c.). At present it is not possible to exclude the possibility that all or most of the inland sites represent special purpose camps connected to larger, semi-permanent settlements on the coast. Such an hypothesis is supported by finds from Norway and western Sweden. During the late-glacial and postglacial periods, these parts of Scandinavia witnessed an uptiltng that generally was greater than the marine transgression. Along the raised

shorelines of these areas a large number of former coastal sites is found. In this way it is documented that a relatively intense coastal habitation existed north of Denmark as far back as the earliest habitation known from these areas - that is around 8,000 b.c.

The rocky coasts of Norway and western Sweden were hardly more attractive to the hunter-fishers of that time than the Danish moraine coasts. Therefore, a rich coastal habitation must be expected from the Danish territory at least as early as 8,000 b.c. The proof of this position is to found at the bottom of the sea.

Locating submerged settlements

In recent years scuba-divers have located several submerged settlements under shallow water near the present coasts. But, surveying the sea floor by diving is a very time-consuming enterprise. Furthermore, large numbers of sites must be hidden beneath later marine sediments. To progress in the locating of submerged settlements, we therefore have to develop means other than diving. The need for this has been stressed lately in the Roskilde Fjord. Here an intensive industrial dredging of fossil shells from the bottom of the fjord is taking place. This activity threatens to destroy submerged settlements of the Kongemose and Maglemose Cultures that are expected to be present. To prevent this destruction, methods and models for the detection of submerged stone age sites are now being developed.

Along the Roskilde Fjord a large number of coastal sites of the Ertebølle and Kongemose Cultures is known. These sites - especially the ones from the Ertebølle Culture - must be considered as fairly representative of the total population of settlements of the period with regard to their location on the former landscape. The former topographical position of the known sites shows a relatively distinct pattern. Concerning the Ertebølle and latter part of the Kongemose Culture, 48% and 75% of sites respectively were placed at the narrows of the fjord. Further, more than 31% and 17% respectively were positioned at the mouths of rivers. This means that most of the sites (including all the bigger ones) are found at positions which from pesent day knowledge are the very best for fishing.

Assuming that this settlement pattern also holds for earlier periods, possible settlement areas of the older Kongemose Culture were predicted using the contour lines of existing maps. In the summer of 1982 these predictions were tested by pumping small pits at the bottom of the fjord. In all cases the predictions were validated.

Conclusion

The submerged stone age settlements contain information which for several reasons can hardly be obtained from sites above sea level. One is the extremely good condition of preservation in the continuously waterlogged sediments. Another is the circumstance (at least for Ertebølle and Kongemose Cultures) that the coastal habitation seemingly gives a much more complete impression of the societies than the inland sites. Thus a realistic impression of the complexity (technologically, socially and ceremonially) of the mesolithic and late palaeolithic societies of Denmark may possibly only be reached

by examination of coastal settlement.

The stone age sites of the Danish sea floor represent a vast but hitherto almost unexplored field of research. Due to intensified dredging of sand and gravel from the sea bottom, many of these submerged sources of information are now theatened by destruction. The Danish Ministry of Environment has therefore begun to locate and protect the most important submarine areas of mesolithic and palaeolithic habitation.

A. Fischer & S.A. Sorensen
National Agency for the Protection of Nature, Monuments and Sites
Ministry of the Environment
Copenhagen

Reference

Fischer, A. & S.A. Sorensen 1983 "Stenalder på den danske havbund." Antikvariske Studier 6: 104-126. Copenhagen.

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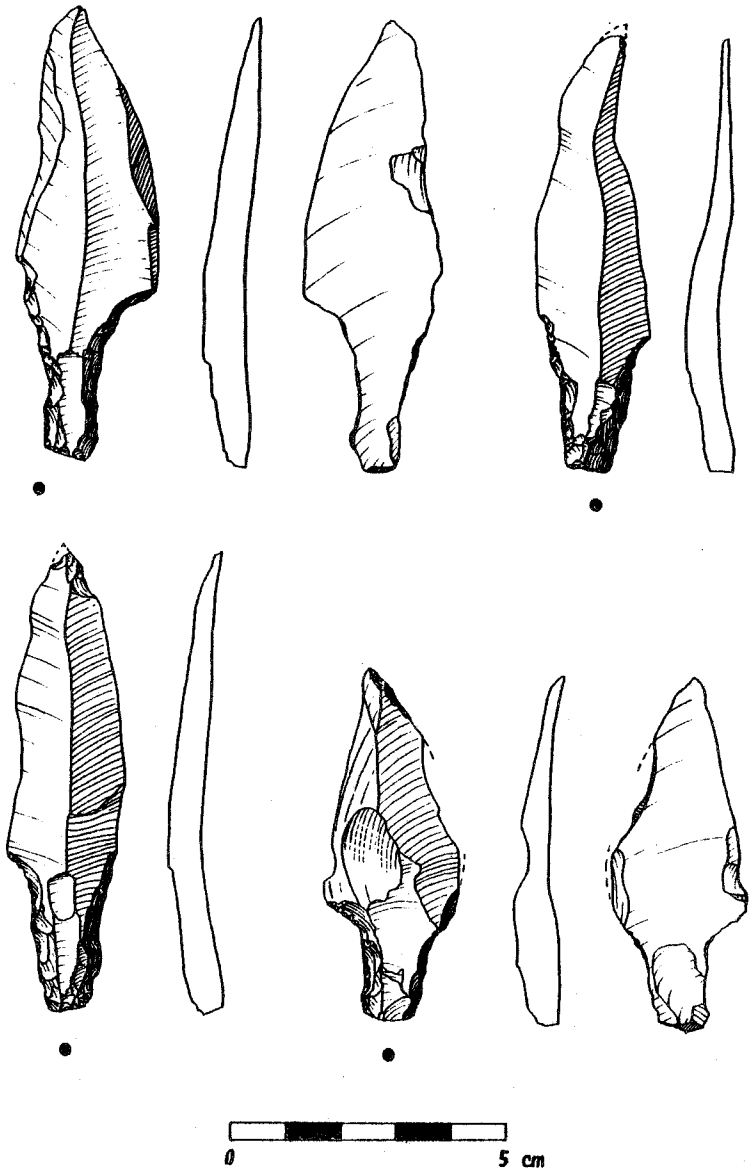

Fig. 1. Finds of a submerged stone age site near Hjarnø, Denmark: four tanged points from the Bromme culture.

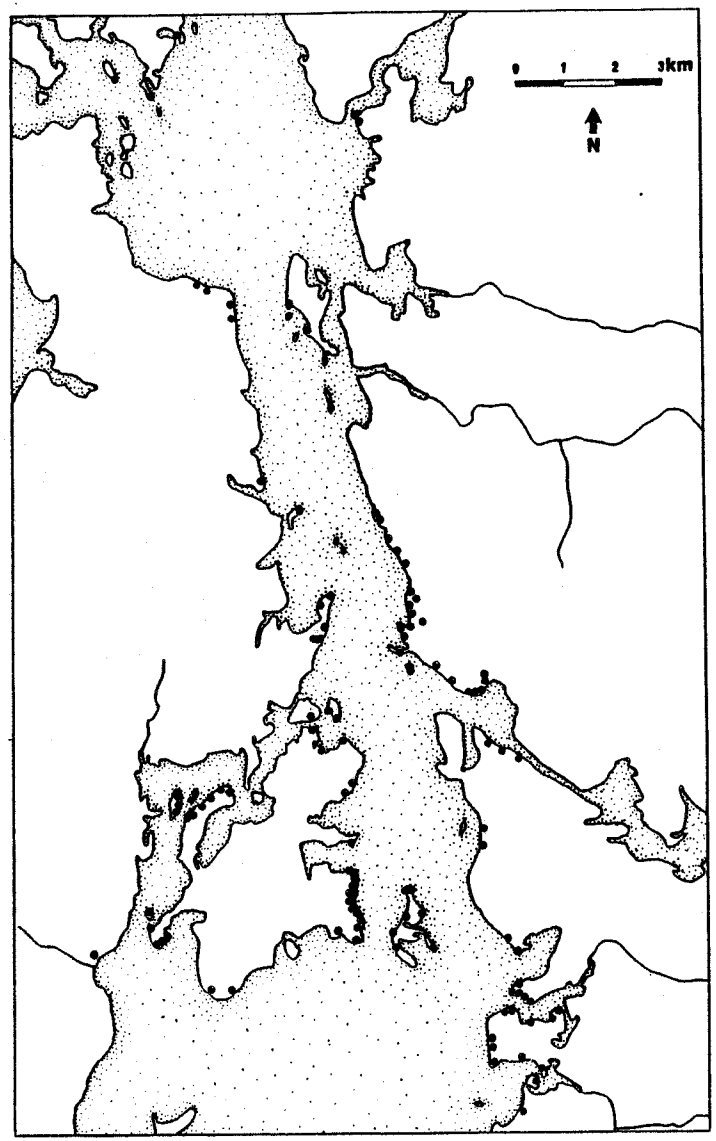

Fig. 2. Settlement finds of the Ertebølle culture along the former shores of Roskilde Fjord, Zealand.

On the Use of Ochre among Prehistoric Hunter/Gatherer Groups in Southern Norway

The occurrence of "red ochre" in the cultural layer of a late mesolithic dwelling site, excavated by the author in the high mountains of southern Norway, is tentatively interpreted within a wider cultural context.

A survey of accessible archaeological evidence shows that ochre, or pigments supposed to be ochre, has been found at a minimum of 16 dwelling sites and 7 rock painting localities in southern Norway (see map). However, no graves with ochre are known. Seven of the dwelling sites are in high mountains (map, 1-7), while the remainder are on the coast or by the inner fjords (8-16). The rock paintings are concentrated on the coast or inner fjords (17-19) and in the lower inland of southern Norway (20-23). Dwelling sites with ochre have so far not been found in the lower inland, and rock paintings have not been located in the high mountains, in spite of intensive archaeological investigations here during the last 15-20 years. Chemical analyses have been carried out on ochre from 11 localities (8 dwelling sites and 3 rock paintings). The primary pigment in all tests is haematite ("red ochre"). Limonite ("yellow ochre") has not been identified.

The ochre found at the dwelling sites is, with few exceptions, encapsulated in the cultural layer as small concretions of red-brown fine-grained powder. One of the ochre occurrences in Skipshelleren (9) was apparently gathered in a shell. From Svarthåla (13) the ochre colour seems to have been smeared on a stone block near the cave opening, and at Frebergsvik (16), red ochre has been identified on the surface of a small flagstone, interpreted as a possible palette. Beyond information about probable fatty binding material mixed with red ochre at Vrålsbu II (5), and some indication of carbonised bones used as a tint at Flatøy (10-12), there is no data concerning preparation and use of the ochre at the sites.

A critical review of all C14 dates of red ochre found at dwelling sites shows that most of the indisputable dates lie between approximately 6,300 and 5,500 b.p. (uncalibrated). The location, the artifact material and the radiocarbon dates place the sites within the late mesolithic hunter/gatherer cultural context. The rock paintings in southern Norway usually depict edible large game, and seem predominantly to have been created in connection with seasonal hunting expeditions. Even if the rock paintings in principle are undated, most of them are believed to belong to the Early Bronze Age. Some of them, however, may have been made by more agriculturally orientated groups of the Later Bronze Age.

The most important finds of ochre pigment from archaeological contexts in southern Scandinavia during the last 10 years have been examined by the author. A tangible difference compared to southern Norway is that the red ochre in southern Scandinavia occurs predominantly in graves, e.g. at Skateholm, Scania, as presented by Lars Larsson in earlier issues of Mesolithic Miscellany (Vols. 2(1), 3(1), 4(1)). Most of the C14-dated graves with ochre belong to the period approximately 6,300-5,800 b.p. (uncalibrated), that is contemporary with the main bulk of the dwelling sites

containing ochre in southern Norway. Also in southern Scandinavia, the red ochre seems primarily to have been used by hunter/gatherer groups.

The well-documented and relatively widespread use of ochre among aborigines in Australia makes it possible to suggest an interpretation of the occurrence of ochre at the open air late mesolithic sites in the high mountains of southern Norway. The view of ochre as a representation of blood seems to be of crucial importance in a historical/cultural comparison. Accordingly, the red ochre may have been used in rites and magical ceremonies to secure a proper yield from the specialised reindeer hunt, even though more practical purposes (for instance, as gnat repellent or suntan oil) cannot be ruled out.

Sveinung Bang-Andersen
Arkeologisk Museum i Stavanger
P.O. Box 478, N-4001 Stavanger

References

Bang-Andersen, S. 1982 "Om økerbruk blant forhistorisk jeger/samler-grupper i Sør-Norge." Arkeologisk Museum i Stavanger Skrifter 9: 57-73. (Off-prints of this article may be obtained from the author at the address above).

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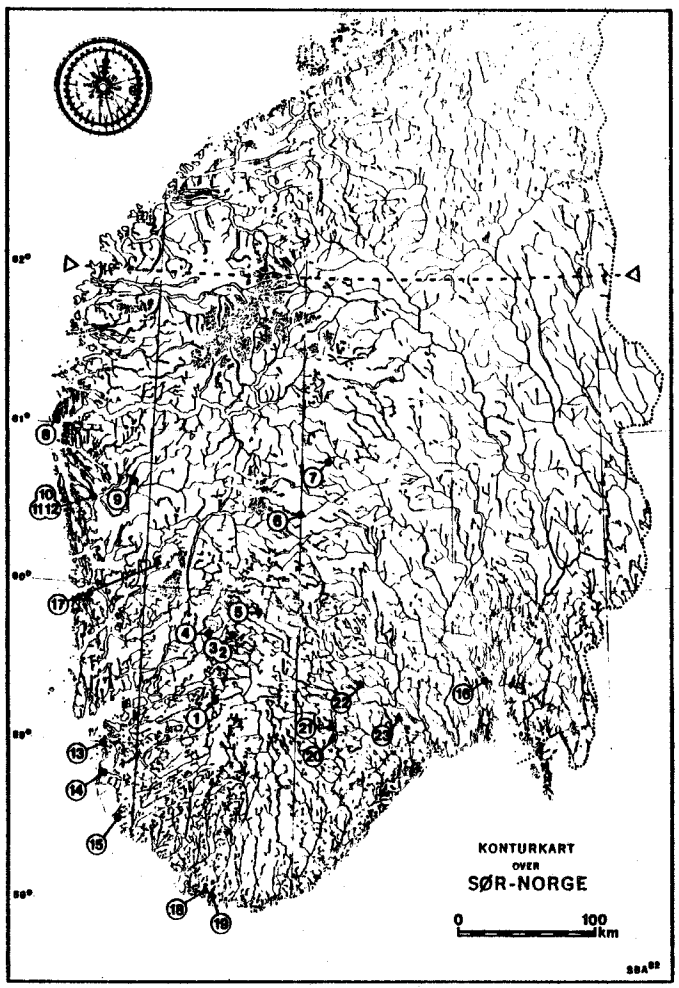

Map. Location of sites with red ochre in southern Norway. Dots = dwelling places, triangles = rock paintings.

RECENT PUBLICATIONS

Aaris-Sorensen, K. 1983 "An example of taphonomic loss in a Mesolithic faunal assemblage." In Animals and Archaeology: I. Hunters and Their Prey, edited by J. Clutton-Brock and C. Grigson, pp. 243-247. British Archaeological Reports, International Series, 163. Oxford.

Madden, M. 1983 "Social network systems amongst hunter gatherers considered within southern Norway." In Hunter-Gatherer Economy in Prehistory, edited by G.N. Bailey, pp. 191-200. Cambridge University Press.

The regional context of hunter-gatherer organisation and the network of social linkages that structure interrelationships amongst these groups are considered here. Such linkages have potential for creating structured and enduring patterns of spatial interaction and integration. The patterning of these linkages and relationships is discussed in relation to the development of variability in the archaeological record. Three different models of the variation that might exist in the structure of these network systems are outlined and further demonstrated within the context of a particular set of archaeological data from the mesolithic period in southern Norway.

Rowley-Conwy, Peter 1983 "Sedentary hunters: the Ertebølle example." In Hunter-Gatherer Economy in Prehistory, edited by G.N. Bailey, pp. 111-126. Cambridge University Press.

Sedentary hunter-gatherers are examined and found to be sufficiently different from band-scale societies to warrant the term "complex hunters". Recent examples are often found in particular types of environments. Demographic, ecological, social and other aspects are examined in further detail, and a model is put forward for the development of complex hunters. The shell middens of the Ertebølle period in the western Baltic are in a suitable environment for complex hunters. An area is examined in detail. On the basis of site size, economy, location and the presence or absence of overlying neolithic deposits, the sites are found to divide into permanent bases and temporary camps. The ecological basis for such systems leads to the conclusion that complex hunters are not a late specialisation, but that hunters may be expected to take advantage of favourable environmental circumstances whenever they appear.

Larsson, Lars 1983 Ageröd V. An Atlantic Bog Site in Central Scania. Acta Archaeologica Lundensia, Series in 8 , no.12

TABLE OF CONTENTS: 1. Introduction, 2. Site Description, 3. Description of Finds, 4. Radiocarbon Datings, 5. Dendro-Anatomical Analysis of Charcoal, 6. The Dissemination of Artifacts within the Site, 7. The

Environment in the Site's Vicinity, 8. Sites in the Vicinity of Ageröd V, 9. Hunting, 10. Fishing, 11. Seasonal Indices, 12. Choice of Settlement Location, 13. Chronology, 14. Coastal Settlement, 15. The Relationship between Inland and Coastal Settlement, 16. Literature.

Gob, Andre 1983 "Du Mésolithique au Néolithique entre Rhin et Seine: un modèle de Néolithisation." In Progrès Récents dans l'Étude du Néolithique Ancien, S.J. de Laet (editor), pp. 55-61. Dissertationes Archaeologicae Gadenses, 21. De Tempel, Brugge.

Clark, Geoffrey 1983 The Asturian of Cantabria: Early Holocene Hunter-Gatherers in Northern Spain. Anthropological Papers of the University of Arizona, 4(1). Tucson, University of Arizona Press.

TABLE OF CONTENTS: 1. Research Approaches to the European Mesolithic, 2. Cantabrian Geography and Geomorphology, 3. The Asturian of Cantabria: Survey of Prior Research, 4. Archaeological Investigations at Liencres, 5. Industrial Remains, 6. Faunal Remains, 7. Catchment Analysis of Asturian Sites, 8. Early Holocene Adaptations, 9. Appendices, 10. References, 11. Index.

Thevenin, Andre 1982 Rochedane, L'Azilien, l'Epipaléolithique de l'Est de la France et les Civilisations Epipaléolithiques de l'Europe Occidentale. Memoires de la Faculté des Sciences Sociales, Ethnologie. Université des Sciences Humaines de Strasbourg. 2 Volumes, 845 pp., 336 figs.

TABLE OF CONTENTS: Preface, Avant-propos, Première partie: Domaine d'étude de méthodologie, 1. Domaine d'Étude. Cadres geographiques, chronologique, paléoclimatique et industriel, 2. Methode d'étude. Deuxieme partie: Le gisement de Rochedane à Villars-sous-Dampjoux (Dous), 1. Localisation et stratigraphique de Rochedane, 2. Les données des sciences dites annexe, 3.Les industries de Rochedane, 4. L'Art à Rochedane. Relations avec les autres centres d'art. Troisième partie: Les industries épipaléolithiques dans le domaine d'étude. Fondements chronostratigraphiques des industri préhistoriques de la fin du Tardiglaciaire et du début du Postglaciaire ..... 1. en Perigord, 2. en Gironde et dans Les Landes, 3. en Agenais, 4. dans le Haut-Quercy, 5. dans les Pyrénées, 6. en Roussillon et en Languedoc, 7. en Languedoc oriental et en Provence littoral, 8. en Haute-Provence et dans le Vaucluse, 9. en Ardèche et dans le couloir rhodanien, 10. dans le Massif Central, 11. dans les Alpes du Nord et le Jura méridional, 12. en Bourgogne, 13. dans le Centre et dans le Bassin Parisien et en Belgique, 14. en Suisse, 15. de l'Ouest de l'Allemagne, 16. dans l'Est de la France, 17. Repères stratigraphiques pour la fin du Tardiglaciaire des le début du Postglaciaire. Quatrième partie: Les civilisations préhistoriques sur le domaine d'étude du début d'Alleröd à la fin du Préboreal.

Dumont, J.V. 1983 "An interim report of the Star Carr microwear study." Oxford Journal of Archaeology 2: 127-145.

This paper presents some preliminary observations based on the microwear analysis of 173 artifacts from the mesolithic site of Star Carr, near Scarborough, Yorkshire. One hundred discrete and utilised edges were identified by the presence of various microwear traces on 79 of the artifacts belonging to the following general types: scrapers, edge-damaged or marginally retouched blades and flakes, bilaterally backed blades (awls), burins, backed blades, axe resharpening flakes, denticulated or truncated flakes and blades, microliths and cores. The microwear traces identified on the tools indicate that they were used in a variety of ways in the processing of hide, bone, wood, antler and meat. A comparison of wear traces and tool shape has shown that there are morphological differences between scrapers used on hide and those used on bone, and also that edge-damaged or marginally retouched blades were selected for use on the basis of their cross-sectional configuration.

Coles, J.M. & B.J. Orme 1983 "Homo sapiens or Castor fiber?" Antiquity 57: 95-102.

This article shows how environmental evidence for European stone age forest clearance may require re-interpretation, and that change need not be attributed only to climate or man. Observations in North America and Europe show the beaver to be a significant agent in land transformation. The authors suggest that both hunters and farmers took advantage of the opportunities thus presented, and a few hints are provided about their detection and the implications for the mesolithic and early neolithic of north-western Europe.

Geddes, David S. 1983 "Neolithic transhumance in the Mediterranean Pyrenees." World Archaeology 15: 51-66.

Excavation at a series of sites in the Aude valley of southern France shows that transhumant movement of domestic ovicaprines began in the late mesolithic and early neolithic, following seasonal movements along lowland, middle altitude and mountain environments for the exploitation of wild plant and animal resources. Beginning around 4,500 b.c., midway through the early neolithic, the faunal evidence shows the emergence of a mixed herding economy at the lowland sites. At the same time, vegetational and sedimentary evidence show signs of deforestations, invasions of pioneer species, and erosion. It is argued that domestic herbivores may have played a key role in the degradation of soil and vegetation in sensitive submediterranean forest ecosystems. Transhumance may have been both a cause and a consequence of the ecological changes which it set in motion. The movement of domestic herds to upland pastures may have

been a necessary adaptation to the aridity and impoverished vegetation of the lowland zone.

Geddes, David S. 1980 De la Chasse au Tropeau en Méditerranée Occidentale. Archives d'Ecologie Préhistorique, 5. Toulouse: Centre d'Anthropologie des Sociétés Rurales. 143 pp., 53 figs., FF80.00.

Drawing upon original research on 4 mesolithic-neolithic sites in the Aude river valley of southern France, located in different environmental settings (littoral, lowland, piedmont and mountain), the author attempts to describe and interpret the emergence of animal husbandry during the 6th and 5th millennia b.c., and the socioeconomic and ecological changes which may have accompanied this shift from subsistence economies based on gathering and hunt to those based on agricultural production in the west Mediterranean region. The author first reviews the data and interpretations concerning the mesolithic-neolithic transition, and the complex interrelationships among sedentism, domestication and food production in Southwest Asia and Europe. The core of the work is devoted to faunal studies of the Grotte Gazel, Abri de Dourgne, Abri Jean Cros and the site of Leucate-Corrège. The author first presents the stratigraphy, chronology and palaeoenvironmental setting of each site. The faunal remains are then described and analysed in detail, in the local and regional context. The author shows the complexity of the process of "neolithisation" in the western Mediterranean: the continuing, decisive role played by wild resources during the early neolithic; the separate introductions of the various domestic animals over a millennium; the changes in site location and site function in the regional economy. Substantial changes in subsistence and settlement arise only in the Aude Valley with the advent of the middle neolithic, and are shown by large Chassean settlements implanted on alluvial terraces. The author discusses models for the Cardial horizon of the early neolithic in the Mediterranean, and rejects a simple extension westward of the Greco-Aegean model, with sedentism beginning in the aceramic neolithic, and a preponderance of domestic animals from the outset. Rather, he argues that indigenous societies may have played a formative role in the emergence of early agricultural society in the western Mediterranean.

Bang-Andersen, S. 1982 "Om økerbruk blant forhistorisk jeger/ samler-grupper i Sør-Norge." In: Faggrenser brytes. Artikler tileigne Odmund Møllerop 7 Desember 1982, A. Lillehammer (ed.), pp. 57-73. Arkeologisk Museum i Stavanger 9. With English summary.

Bang-Andersen, S. 1983 "Svarthala pa Viste - boplass i 6,000 ar." Arkeologisk Museum i Stavanger - Smatrykk 13. Stavanger 1983. 24 pp. With English summary.

Price, T. Douglas 1983 "The mesolithic of the Drents Plateau." Berichten van de Rijksdienst voor het Oudheidkundig Bodem-

onderzoek 30 (1980): 11-64. Amersfoort, Netherlands.

Price, T. Douglas 1983 "The European Mesolithic." American Antiquity 48: 761-778.

This brief review is intended to acquaint the reader with the recent research and thought on the European mesolithic. This period is characterised by hunter-gatherer adaptations between the close of the Pleistocene and the introduction of food production. A number of developments support an argument for the rapid intensification of human subsistence and settlement practices, prior to the utilisation of domesticated plants and animals.

sson, Lars 1983 "Mesolithic settlement on the sea floor in the Strait of Öresund." In Quaternary Coastlines and Marine Archaeology, edited by P.M. Masters and N.C. Fleming, pp. 283-301. London, Academic Press.

Submarine bogs have been found in the Straits of Öresund, the stretch of water separating the island of Zealand in Denmark from Scania, Sweden. Stratigraphic studies of these deposits have provided information regarding sea level during the Boreal period (7,000-6,000 b.c.) and indicated that large areas, now submerged, were then habitable and suitable for settlement by man. A reconnaissance was made in 1979 and 1980 in an effort to locate settlement sites in the area of the now submerged westernmost channel of the River Saxxan, outside Landskrona, Sweden. Artifacts uncovered during dredging, etc., had earlier indicated that such sites existed, both here and elsewhere in the Öresund. By means of sea bottom samples obtained from ship-board and skin-diving searches, two sites were located. One of these yielded artifacts datable to between 6,400-6,000 b.c. Together with earlier finds within the reconnaissance area, three - and probably four - sites are now documented. Results show that coastal settlement during the Boreal period tends to follow a pattern of distribution similar to that which applied to settlement area preferences during the later Atlantic period.

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Editor's Note

I would like to thank all of those individuals who contributed to the current issue of Mesolithic Miscellany. The present issue is only 19 pages and I would prefer to have issues that run 20 or 24 pages in length. (Ideally, the issues should be in multiples of four pages for purposes of printing the bound edition.) I would like to remind the readers that the size and quality of the newsletter is your responsibility and more contributions are essential to continue the newsletter and improve our means of communication. Please remember that results of your research, book reviews, notes of excavatipn or dating, recent publication references, statements of position for debate, synopses of national research, and the like are all of use in the newsletter and welcome for publication. I look forward to your contribution for coming issues.

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SUBSCRIPTION INFORMATION

Mesolithic Miscellany is issued twice a year, in May and November, as an informal communication for individuals interested in the Mesolithic of Europe. If you would like to subscribe and contribute to the newsletter, please send your name and address to the editor.

The cost of a yearly subscription is US$3 or 2 pounds sterling. There are several methods for payment of subscriptions:

1. Payment may be made directly to the editor in US$.

2. European subscribers may send payment in sterling directly to Clive Bonsall, Department of Archaeology, University of Edinburgh, 16-20 George Square, Edinburgh.

3. Individuals for whom currency exchange may be a problem should write directly to Dr. Bonsall at the above address. Dr. Bonsall has arranged for the Institute of Archaeology of the University of Edinburgh to provide subscriptions in exchange for publications. Dr. Bonsall can provide the details for this arrangement.

Contributions to the newsletter are always welcome with regard to any of the topics that are covered. Major categories of the newsletter include recent publications with abstracts or tables of content, short research reports, book reviews, recent radiocarbon determinations, letters to the editor, requests for information, changes of address, synopses of annual research on a regional basis, and anything else of relevance to Mesolithic studies.

Deadlines for the newsletter are 1 May and 1 November for the May and November issues respectively. Material requiring translation may be sent to the editor for distribution to volunteers or directly to the individual translators listed in volume 1 of Mesolithic Miscellany.

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