

## MESOLITHIC MISCELLANY

\*\*\*\*\*  
UNION INTERNATIONALE DES SCIENCES PREHISTORIQUES ET PROTOHISTORIQUES  
COMMISSION #14

Volume 2, Number 2

NOVEMBER 1981

### From the Editor

*This is the second and last issue of the newsletter for 1981. I would like to remind everyone that subscriptions for 1982 will be due immediately. Postage costs in the United States have risen 25% in the past 6 months and our costs for typing and duplicating have also gone up. We will keep the subscription rate at \$3 (2 pounds sterling) for 1982 but I anticipate an increase in our subscription rates for 1983. There is a possibility (as discussed in the report of S.K. Kozłowski) that a subsidy of some kind may be obtained from the UISPP. If this does come to pass, it should be possible to maintain relatively low costs for the newsletter. I regret having to mention this topic in almost every number of the newsletter, but subscriptions are almost as important to the success of Mesolithic Miscellany as the contribution of articles, reviews, and information. Specific information regarding subscription is included in the back pages of the newsletter.*

*There are several important research reports in this issue along with a stimulating statement for debate by P.A. Mellars concerning the definition of the Mesolithic. I hope that these contributions will be as useful for you as they have been for me. I want to urge all of our readers to continue to send research reports, reviews, and other information. One of the more useful sections, I think, is the listing of recent publications and this section can only be kept current through your participation. We send reprints, or at least appropriate bibliographic reference, for your own publications and others of interest regarding the Mesolithic.*

*Again my thanks to those who have contributed to this issue and my encouragement to those who are planning to do so. This issue contains one national synopsis of current research by S.K. Arora. I would again remind those who have volunteered to write such synopses to please submit them by May 1, 1982, for inclusion in the next issue of the newsletter.*

### ANNOUNCEMENTS

Le Mesolithique dans Le Bassin de L'Ourthe, by Andre Gob, has just been published as Mémoire N°3 of the Société Wallonne de Paléthnologie. The volume is 351 pages and contains a preface by S.K. Kozłowski. Price of the publication is 700 Belgian Francs (including postage) before 1 January 1982, and 950 BF after that date. Orders for the volume should be sent to Société Wallonne de Paléthnologie, c/o Labo. de Paléontologie, Université de Liège, 7 Place de XX-Août, B-4000, Liège.

The following institutes and individuals have subscribed to the newsletter in the period between May 1 and November 1 1981.

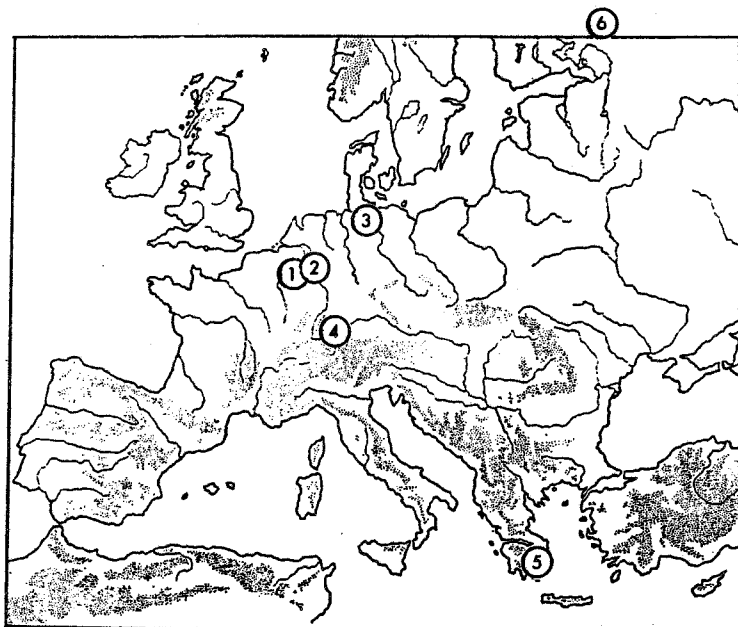
Universite de Bordeaux 1 Talence  
Rijksdienst v.h. Oudheidkundig Bodemonderzoek  
Tozzer Library, Harvard University  
Museum Library, University of Pennsylvania  
Centre de Recherche Archeologique, Valbonne

J. Tixier  
B. Voytek  
S.V. Oshibkina

\*\*\*

Peter Rowley-Conwy is seeking an available copy of the proceedings of the 1973 Warsaw Congress, The Mesolithic in Europe, edited by S.K. Kozłowski. He will offer a reasonable price for the volume in any condition. Address: 1 Clare Road, Cambridge CB3 9HN.

\*\*\*



Location of sites mentioned in this newsletter.

- |               |                  |              |
|---------------|------------------|--------------|
| 1 Ourlaine    | 4 Abri Helga     | 6 Kerelia    |
| 2 Hambach 253 | Abri Felsstalle  | Lake Onega   |
| Kesselsdunn   | Geissenklösterle | Suhoni Basin |
| Scherpenseel  | Birkichacker     |              |
|               | Taubried         |              |
| 3 Duvensee    | 5 Franchthi Cave |              |

## RESEARCH REPORTS

### Mesolithic Settlement at Ourlaine (Theux, Belgium)

This settlement was excavated from November 1976 up to November 1980. The site is located in a hilly region some 30 km southwest of Liege (Long.  $5^{\circ}48' E / 50^{\circ}30'18'' N$ ). The settlement rests on the edge of a large schist promontory that is 327 m above sea level. The stratigraphy of the site can be summarized as follows:

- a humic layer (30-35 cm in thickness)
- colluvial clay (30 -70 cm in thickness)
- cryoclastic schist at the top of the bedrock

Dr. Alexandre associates the cryoclastic turbation with the Dryas III period. The artifacts are located primarily in the colluvial layer but a few are deeper, down to the bedrock. These lower artifacts appear to have been carried down by later soil disturbances.

The excavated area covers some 93 m<sup>2</sup> and several concentrations of artifacts were observed within this area. These concentrations, of irregular size, may be due partially to irregularities in the subsoil.

38,000 artifacts, mostly made from flint, were recorded in three dimensions. Several thousand more were collected in the humic layer and in the sieving process. The list of 583 retouched tools contains classic Mesolithic artifacts. The "common" tools (208) are dominated by scrapers (50) and burins (38) but borers and simply retouched flakes are present as are truncated blades and bladelets.

The microliths from Ourlaine constitute the most important collection from the Ourthe Basin Mesolithic, both qualitatively and quantitatively, since this is an original and radiocarbon-dated assemblage. The assemblage contains the following classes of microliths:

- Zonhoven points (90), among which are some with curved backs
- points with retouched bases (point type C) (53), some with oblique base and some Horsham points
- Scalene triangles (65)
- Isosceles triangles (14)
- Segments (134) which is the major class (35%)
- Backed bladelets (13)
- Beuronian trapezes (3)
- Miscellaneous (3)

Total amount: 375 microliths

More than 500 microburins were collected and demonstrate the significant use of the microburin technique.

The settlement of Ourlaine gave us a great amount of psammite slabs, some polished or smoothed by use, and pebbles, intentionally fractured and re-used, as well as a 'blade' fashioned by polishing on a slate, part of a "gres a rainure" (sandstone), and some notched stones.

Two radiocarbon dates from charcoal are in good agreement with the typological dating:

Lv-970 9200±130 BP  
Lv-1109 8890±60 BP

Charcoal determinations were made by W. Schoch. The occurrence of hornbeam, Carpinus betulus, which occurs for the first time in this region during Atlantic times, suggests an admixture of more recent materials, as does the discovery of a scraper made from a polished flake and some sherds in the northern part of the excavated area. However, this contamination appears to be very limited.

The Ourlaine flint industry, well dated to the end of the Preboreal, shows originalities which suggest it as the reference assemblage for early Beuronian of the Meuse Basin (Gob 1979).

A full publication of this excavation is now in preparation.

J. et P. Lausberg - Miny  
L. Pirnay  
(Translation: A. Gob)

## References

- Gob, A. 1979. "Le mesolithique dans le bassin de l'Ourthe." *Helinium* 19: 209-36.
- Lausberg, P. & J., & L. Pirnay. 1978. "Le gisement mesolithique de l'Ourthe à Theux." *Bull. Ass. Scient. Liegeoise Rech. Archeol.* XII: 2-14.
- Lausberg, J. & P., & L. Pirnay. 1980. "Le gisement mesolithique de l'Ourthe à Theux." *Conspectus MCMLXXIX.* (Archaeologia Belgica 223: 25-29)

\* \* \*

## Mesolithic Sites in the Northern Part of the European USSR

Until recently only a few Mesolithic sites were known in the north of the European USSR. The only exception to this was the region of Kerelia, where number of Mesolithic sites were reported. Recent research, conducted in the central part of the northern USSR, has greatly expanded our knowledge of the Mesolithic period in this area. We now know of a number of site clusters located in Kerelia, in the eastern region around Lake Onega and in the Suhoni Basin. In addition, sites have also been discovered lying north of this area -- the sites and their inventories are currently under study. These northern sites appear to have strong connections with the Komi-Ural Mesolithic. The study of the oldest northern sites of Eastern Europe is of great importance if we are to both (1) date the time when man first occupied regions previously covered by the ice sheet, as well as (2) study the direction of these first migrations.

The dating of the sites still remains a difficult problem, often achieved only by archaeological means. We have been able to use palynological data to date the sites found in the Suhoni Basin -- these show that the sites are late Mesolithic and were occupied at the beginning of the Atlantic period. The Kerelia sites are being dated stratigraphically, using methods worked out by Finnish experts. Kerelia Mesolithic appears very early (Pankrushev 1978: 26-53) with sites dating earlier than those in nearby Finland (Luho 1967, Siirilaenen 1974, s II).

Sites on the eastern side of Lake Onega are dated fairly firmly as well. The bog sites in this region have Boreal pollen profiles. Their cultural layers were deposited prior to the formation of peat bogs at the end of the Boreal. Studies of faunal remains from the sites confirm such dating. These sites have yielded rich inventories that include lithics and implements of bone, antler and wood, as well as a few unique pieces. Cultural inventories from sites such as Lower Veretye, Sukhoye, Pogostische I, Yagorb, and Popovo cemetery can be compared with the Kunda culture of the Baltic region, the Maglemose of northern Europe, and the site of Antrea in Kerelia. These cultures and sites existed during the Boreal period, primarily in the second half of this period. This, in general, confirms the dating of the bog sites found on the eastern side of Lake Onega. The following radiocarbon dates have been received for the site of Nizhneye (Lower) Veretye:

LE 1472: 8750±70  
GIN 2452-U: 8560±120  
GIN 2452-D: 8520±130

The peopling of the central regions of the European north may have begun soon after the retreat of the ice. Suitable environmental conditions were in existence already in Preboreal times. To date, however, we have no sites dating from this period. During the Boreal, a wave of Europeanoids reached the eastern parts of Lake Onega -- these migrants lived along the shores of the then extant Antsilovoye Lake. These groups occupied the bog sites found in this region.

In the Suhoni Valley as well as in areas further east, the Boreal period may have seen occupation by descendants of the bearers of Swiderian culture. Many experts believe that the Swiderians moved into the forested regions of Eastern Europe at the end of the Paleolithic/beginning of the Mesolithic. Concrete data regarding this population comes only from the very end of the Boreal or the beginning of the Atlantic period.

S.V. Oshibkina  
Institute of Archaeology  
Academy of Science USSR  
Moscow

(Translated by Olga Soffer-Bobyshev)

## References

- Pankrushev, G.M. 1978. *The Mesolithic and Neolithic of Kerelia*, 1-2. Leningrad.
- Luho, V. 1967. "Die Suomisjarvi-kultur. Die mittel- und spatmesolitische Zeit in Finland." *SMYA* 66.
- Siirilaenen, A. 1974. *Studies relating to shore displacement and stone age chronology in Finland.* Helsinki.

\* \* \*

## RECENT PUBLICATIONS

- Broadbent, N. 1978. "En kritisk undersökning av landhöjning och arkeologi i Västernorrland." *Västernorrland* 3.
- Burov, G.M. 1980. *The Stone Age of the Ulyanovsk Region of the Volga. Guide to Archaeological Sites.* Volga Region Publishing House, Ulyanovsk Division. Ulyanovskii Regional Museum of Natural History. (In Russian)
- Rowley-Conwy, P. 1981. "Mesolithic Danish bacon: permanent and temporary sites in the Danish Mesolithic." In *Economic Archaeology*, A. Sheridan & Geoff Bailey (eds.), pp. 51-54. British Archaeological Reports, International Series, 96.
- Jacobi, R. 1979. "Early Flandrian hunters in the South-west." *Devon Archaeological Society Proceedings* 37: 48-93.
- Jacobi, R. 1979. "The Mesolithic of Essex." In *The Archaeology of Essex to 1500 A.D.*, D.G. Buckley (ed.), pp. 14-25. Council for British Archaeology, Research Report.
- Bokelmann, K. 1981. "Zwei steinzeitliche Fundplätze am Priwall, Gemarkung Trave und Dassower See, Hansestadt Lübeck." *Lübecker Schriften zur Archäologie und Kulturgeschichte* 5: 11-16.

### Pre-Neolithic at Franchthi Cave

Today Franchthi Cave lies near the shore and overlooks the Bay of Koilada and the Argolic Gulf beyond, but there is good reason to believe that it has not always been thus (Van Andel et al. 1980). In times of lower sea level, indeed, throughout much of the site's history, the coastline was some distance away, and the inhabitants of the settlement would have looked out over a coastal plain through which at least one major stream wended its way to the sea. This combination of natural shelter and abundant water (from the stream as well as several springs near by) surely had a significant effect upon the establishment of human activity here. When that first took place, we do not know; we do know that it was something over 20,000 years ago. This data is based upon an excellent series of radiocarbon measurements and is further confirmed by volcanic tephra found near the base of our Paleolithic deposit. This tephra has been correlated with volcanic ash from elsewhere dated between 25,000 and 40,000 years ago (Farrand 1977; Vitaliano et in press).

For the purposes of this summary I would like to discuss the results of the Franchthi excavations in terms of a series of adaptive stages, i.e., successive human adaptations to changing environmental conditions. These stages coincide generally with the major chronological horizons as published (Jacobsen 1976), but it must be emphasized that the latter are still provisional and are likely to be subdivided or modified with continued study of the remains. Moreover, this summary will deal only with the pre-Neolithic materials from Franchthi.

Stage 1. The earliest stratified material from the site belongs to the Upper Paleolithic and was probably contemporaneous at least in part with the last major glacial advance (Würm) in Europe. The climate seems to have been markedly cooler and drier at that time and vegetation sparse in the neighborhood of the site. Sea level would have been depressed by as much as 100 m from that of today, and the nearest shore would therefore have been several kilometers distant. Although not abundant, the remains suggest that the cave was occupied on a seasonal basis by a small hunting band of perhaps 25-30 people at most (Service 1971). Their tool kit consisted of bladelets and scrapers of local flint, and their primary quarry was wild ass and (to a lesser extent) red deer. There is no evidence of the gathering of wild plants. Stage 1 seems to have come to an end with a temporary abandonment of the site, represented by a depositional hiatus in the stratigraphy, for a few thousand years around 15,000 B.C. (in uncorrected radiocarbon years).

Stage 2. This is essentially the Final Paleolithic, ca. 10,000 - 12/13,000 years ago, a time when postglacial climatic and environmental conditions had already begun to be felt. Sea level was rising, and there is reason to believe (Van Andel, pers. comm.) that the availability of coastal lowland in the neighborhood of the site had been reduced by 10% or more from that of the glacial maximum.

Evidence of human activity on the headland of Franchthi is confined to the cave itself and seems to have become more intense than it had been earlier. A wider range of subsistence practices is also reflected by the excavated remains. Hunting of large game continued to be important, and red deer gradually come to be the dominant prey. At the same time, there are, for the first time, clear indications of small-scale fishing, shell-collecting (both marine (Shackleton & Van Andel 1980) and terrestrial molluscs) and the exploitation of wild plants (Hansen & Renfrew 1978; Hansen 1978, 1980). These plants included the pulses (lentils and vetch), nuts (pistachios and almonds) and wild cereals (oats and barley), the earliest such yet recorded in Greece.

Microlithic tools begin to appear among the chipped-stone artifacts, and there are the first certified indications of the use of obsidian (Perles 1979). If analysis proves the latter to be of Melian origin (as we should expect), we would have evidence of sea-faring far earlier than even we had expected from prior discoveries at the site. Thus it seems that we have here a group of hunter-gatherers who already had begun to exploit (perhaps tenuously at first) the rich resources of the sea.

Although evidence of seasonality is still very incomplete, there are some indications of spring, summer, and autumn occupation (Hansen 1980). Winter activity is rather more difficult to demonstrate (Payne, pers. comm.), but, if diatal resources not likely to be preserved in the archaeological record (e.g. leafy greens; cf. Clarke 1976, Forbes 1976) are taken into account, year-round occupation at the site must already be considered a possibility.

Since we have no evidence of more extensive occupation at this time, it seems safest to assume that Final Paleolithic Franchthi continued to serve at least as a 'base camp' for a small band of foragers, perhaps now on a more regular basis. Its size and natural advantages, however, may have permitted the accommodation of more than one such group on special occasions or at certain times of the year (Flannery 1972).

Stage 3. The over-all climatic and environmental trends first observed in Stage 2 seem to have continued under the ameliorating conditions of the 'Neothermal' of the eighth millennium B.C. (in uncorrected radiocarbon years). Higher temperatures may be assumed, and the macro- and micro-faunal evidence suggests (Payne, pers. comm.) significantly increased moisture, perhaps greater than in the area today. We can also assume a continuously rising sea level and, therefore, a further reduction of available coastal lowland and those biotic resources associated with it.

We cannot as yet speak with certainty about the manner in which the occupants of the cave adapted to these changing conditions. That a modification of previous subsistence practices was necessary and did take place is implied by the apparent local extinction of certain faunal species (Payne 1975) and a notable change in the composition of the tool kit (Perles pers. comm.). Whether this happened during a brief abandonment of the site, as perhaps suggested by the radiocarbon dates, is not certain. On the other hand, it is clear that there was some measure of continuity with the past. The inhabitants of the cave continued to rely heavily upon the hunting of red deer and the gathering of many of the same fruits, cereals, and legumes. Since the occupied area of the cave is no larger than before and the likelihood of year-round habitation certainly no greater than in Stage 2, it seems that the site continued to serve as a base camp for a small group of hunter-gatherers. It should be noted, however, that we now have the first clear-cut indications of the use of the cave as a place of burial as well as human habitation (Jacobsen 1969). The rather simple interment of an adult male (a primary burial without grave goods) contrasts somewhat with the impression of the generally more elaborate mortuary practices of Neolithic Franchthi (Jacobsen & Cullen, in press).

Stage 4. For the present, it seems that the climatic and environmental situation which prevailed in Stage 3 continued without significant change into Stage 4 (seventh millennium B.C.). Sea level continued to rise, and it has been estimated (Van Andel, pers. comm.) that at least 25% of the (Pleistocene) lowland to the west of the site had now been submerged. Likewise, the distance to the nearest shore may well have been reduced by at least one half, thus bringing it to a few minutes' walk of the site.

It is still too early to know the full impact of these conditions on the Upper Mesolithic settlement at Franchthi. It seems clear that certain hunting and gathering practices were retained from previous stages, but there are noteworthy innovations as well. Particularly striking are the quantities of large fish bones which suddenly begin to appear at this time. These have now been identified (A. Wheeler, pers. comm.) as largely of the common (Blue Fin) variety of tuna and are of sizes which reach nearly 2.5 m in length and 200 kg in weight. Tuna vertebrae are extremely common in these contexts, comprising at least 95% of all the fish bones and nearly half of all the large animal bones. It is clear, therefore, that fishing came to be an important activity at this time, at least on a seasonal basis (Bintliff 1977) and tuna a significant part of the diet of the cave's inhabitants.

Geometric microliths reappear in some quantity during Stage 4, but they are technically different from those of Stage 2 (Perles pers. comm.). Some of these tools were fashioned from obsidian, which was more abundant than ever before and has been confidently associated with a source on the island of Melos. It is still tempting to

8.

consider meaningful the correlation between tuna bones and Melian obsidian (e.g. Jacobsen 1976: 81), but the relationship in terms of the technology of Mesolithic tuna fishing clearly needs to be better understood (cf. Bintliff 1977). Likewise, until we know more about early habitation on Melos itself, the issue of pre-Neolithic 'trade' (i.e., implying some form of bilateral exchange) must remain unsettled.

If the above suggests a certain intensification of fishing activities at Upper Mesolithic Franchthi, the results of Hansen's (1980) preliminary study of the carbonized plant remains can arguably reflect an intensified exploitation of botanical resources as well. Although the data are still inconclusive (especially for the potential domesticates, oats and barley), an argument can be made on the basis of size change for the cultivation of lentils. When combined with the first appearance of plants (e.g. coriander) often associated with cultivars and stone tools normally found in agricultural contexts (a flint 'sickle' identified by microwear analysis as having been used to cut grasses - P. Vaughn, pers. comm.), the argument is slightly strengthened. Tantalizing as it is, however, this evidence is still not abur and we can only hope that additional study of the relevant remains will help settle the issue of agricultural origins at Franchthi. In the meantime, it may be said that the situation is rather less clear than it once appeared to us (Jacobsen 1976) and the possibility of experimental manipulation of certain species by man prior to the Neolithic must now be seriously entertained.

Thus the seventh millennium witnessed a diversification and perhaps a certain intensification of food-procurement strategies at Franchthi. That this was in response at least partially to pressures created by a reduced landmass seems very likely, but the extent to which it might also be a reflection of an increase in local population or a tendency towards sedentism (as some might suggest) is rather less obvious. We have nothing yet to indicate that the size of our settlement was any greater in Stage 4 than it had been earlier, and the evidence for seasonal scheduling does not significantly alter the picture gained from earlier stages. Nor has the archaeological record as yet revealed signs of increased social complexity, as might be expectable in more populous and sedentary communities. The material assemblage is still relatively simple and of limited extent, the occasional pebble pendant being among the few non-utilitarian objects unearthed. Yet the presence of such objects and the increasing use of exotic raw materials may point to expanding social and economic horizons. This in combination with the new evidence from the subsistence record should draw our attention to the potentially pivotal role of the Mesolithic --a 'prelude' as one scholar has recently put it (Clark 1980)--to the cultural achievements of the Neolithic. The time has clearly come to re-evaluate traditional ideas about the Mesolithic 'hunter-gatherers' and their adaptive strategies (Bender 1978, Lewthwaite & Rowley-Conwy 1980, Mellars 1978).

Our present knowledge of pre-Neolithic Greece is unfortunately very poor, due principally to the lack of exploration and excavation. Late Paleolithic settlements seem to have been abandoned at the end of the Pleistocene, and we know of no sites that can be securely compared with Franchthi, Stage 3. The best candidate for a settlement of Stage 4 is the small coastal station (maximum dimension in one direction, 70 m) at Sidari on the island of Corfu (Sordinas 1969, 1970). Sidari, level D, is considered to be 'Mesolithic' by the excavator and has been dated by the radiocarbon method to the early sixth millennium (N.B. margin of error). The remains have yet to be fully published, but it seems to have been a camp site occupied seasonally by a small group of (cockle) shell collectors. Though apparently marine in orientation, no evidence of fishing has been reported. Apart from Sidari, little else is known about this stage in Greece. The coastal site of Maroula on the island of Kythnos may be of comparable date (Honea 1975, 1979) but it is only known from brief reports (Cherry 1979).

At this moment, the evidence from Greece as a whole implies a high correlation between the advent of an economy based on plant and animal husbandry and the establishment of sedentary villages. On the other hand, it should be clear that the results of continuing studies of the remains from Franchthi will be critical here,

and of course additional data from elsewhere in Greece are highly desirable. A much clearer picture of the Mesolithic period will obviously be a key to our eventual understanding of the relationship between hunting-gathering and agricultural societies in Greece. In the meantime, it is perhaps safest to reserve judgement on these issues and refrain from advancing too quickly diffusionist or migrationist models to explain the data.

Thomas Jacobsen  
Program in Classical Archaeology  
Indiana University

The above discussion was extracted from an article in *Hesperia*, December 1981, entitled: "Franchthi Cave and the beginning of settled village life in Greece."

© Hesperia 1981

#### References

- Bender, B. 1978. "Gatherer-hunter to farmer: a social perspective." *World Archaeology* 10: 204-222.
- Bintliff, J. 1977. "Natural environment and human settlement in prehistoric Greece." *British Archaeological Reports* 28: i-ii.
- Cherry, J. 1979. "Four problems in Cycladic prehistory." *Papers in Cycladic Prehistory* J. Cherry & J. Davis (eds), pp. 22-47. Monograph XIV, Institute of Archaeology, UCLA, Los Angeles.
- Clark, G. 1980. *Mesolithic Prelude*. Edinburgh.
- Clarke, D.L. 1976. "Mesolithic Europe: the economic basis." In *Problems in Economic and Social Archaeology*, G. de G. Sieveking, I.H. Longworth, & K.E. Wilson (eds.), pp. 449-481. London.
- Farrand, W.R. 1977. "Occurrence and age of Ischia Tephra in Franchthi Cave, Peloponnesos, Greece." *Geological Society of America, Abstracts with Programs* 9: 1971.
- Flannery, K.V. 1972. "The origins of the village as a settlement type in Meso-america and the Near East: a comparative study." *Man, Settlement, And Urbanism* P.J. Ucko, R. Tringham, & G.W. Dimbleby (eds.), pp. 22-53. London.
- Forbes, M.H.C. 1976. "The pursuit of wild edibles, present and past." *Expedition* 19: 12-18.
- Hansen, J.M. 1978. "The earliest seed remains from Greece: Paleolithic through Neolithic at Franchthi Cave." *Bericht der Deutsches Botanisches Gesellschaft* 91: 39-46.
- Hansen, J.M. 1980. *The Palaeoethnobotany of Franchthi Cave, Greece*. Ph.D. Dissertation, University of Minnesota.
- Hansen, J.M. & J. Renfrew. 1978. "Palaeolithic-Neolithic seed remains at Franchthi Cave, Greece." *Nature* 271: 350-52.
- Honea, K. 1975. "Prehistoric remains on the island of Kythnos." *AJA* 79: 277-79.
- Honea, K. 1979. "Mesolithic settlement of the Greek Cyclades Islands." *Actes IX Congress UISPP*, Nice.

- Jacobsen, T.W. 1969. "Excavations at Porto Cheli and Vicinity, Preliminary Report II: The Franchthi Cave." *Hesperia* 38: 343-381.
- Jacobsen, T.W. 1976. "17,000 years of Greek Prehistory." *Scientific American* 234: 76-87.
- Jacobsen, T.W. & T. Cullen. In press. "A consideration of mortuary practices in Neolithic Greece: burials from Franchthi Cave." In *Mortality and Immortality: the anthropology and archaeology of death*, S.C. Humphreys & H. King (eds.). London.
- Lewthwaite, J. & P. Rowley-Conwy. 1980. "The nature of hunter-gatherer adaptations." *Mesolithic Miscellany* 1: 18-20.
- Mellars, P.A. (ed.). 1978. *The Early Postglacial Settlement of Northern Europe*. London.
- Payne, S. 1975. "Faunal change at Franchthi Cave from 20,000 B.C. to 3,000 B.C." *Archaeozoological Studies*, A.T. Clason (ed.), pp. 120-131. Amsterdam.
- Perles, C. 1979. "Des navigateurs mediterraneens il y a 10,000 ans." *La Recherche* 10(96): 82-83.
- Service, E.R. 1971. *Primitive Social Organization*. New York.
- Shackleton, J.C. & T.H. van Andel. 1980. "Prehistoric shell assemblages from Franchthi Cave and evolution of the adjacent coastal zone." *Nature* 288: 357-59.
- Sordinas, A. 1969. "Investigations of the prehistory of Corfu during 1964-66." *Balkan Studies* 10: 393-424.
- Sordinas, A. 1970. *Stone Implements from Northwestern Corfu, Greece*. Memphis State University Anthropological Research Center, Occasional Papers 4.
- Van Andel, T., T.W. Jacobsen, J. Jolly, & N. Lianos. 1980. "Late Quaternary history of the coastal zone near Franchthi Cave, Southern Argolid, Greece." *JFA* 7: 389-402.
- Vitaliano, C.J., S.R. Taylor, W.R. Farrand, & T.W. Jacobsen. In press. "Tephra layer in Franchthi Cave, Peloponnesus, Greece." *The Use of Tephra as a Tool in Quaternary Research*, R.S.J. Sparks & S. Scif (eds.), Reidel (Netherlands).

# NATIONAL SYMPOSES

This section of the newsletter is intended to provide a summary of the recent research and literature on a national basis.

## FEDERAL REPUBLIC OF GERMANY

Schleswig-Holstein  
(Excavations since 1978)

In 1978 excavations were carried out on the early Mesolithic site of Duvensee, Wohnplatz 6. The site lies on a layer of peat. The excavator is of the opinion that this is an extraction camp used for 2 or 3 days, largely for the collection and roasting of hazel nuts. Microliths dominate the stone tool industry.

## References

- Bokelmann, K. 1980. "Duvensee, Wohnplatz 6." *Die Heimat, Zeitschrift für Natur- und Landeskunde von Schleswig-Holstein und Hamburg*. 87(10): 320-30.

Lower Rhine Area  
(Excavations since 1978)

Rescue excavations took place on two surface sites in 1979: Hambach 253 (Gem. Niederzier, Kr. Düren), probably late Boreal; and Kesselsdönn (Gem. Wermelskirchen, Kr. Rheinisch-Bergischer), an early Boreal site. The site of Hambach 253 lies on the floor of the valley of the Old Winterbach in an area of loess. The excavation was not very successful as the Mesolithic cultural layer was largely disturbed by modern plowing. The site of Kesselsdönn lies on a hill top overlooking the river Rhine in the mountainous area east of the Rhine. Two pits were discovered during the excavation, containing a number of burned flint artifacts, which were probably fireplaces. During 1980, a late Mesolithic, possibly early Atlantic, surface site was excavated on the valley floor of the Niers near Mönchengladbach-Wickrathberg. The site produced a large number of artifacts of Wommersom quartzite.

## Recent radiocarbon determinations:

- Site of Scherpenseel (Gem. Ubach-Palenberg, Kr. Heinsberg)  
Excavated 1975/76, charcoal samples  
8920±80 (KN-2261) B.P.  
8910±80 (KN-2262) B.P.

## References

- Arora, S.K. 1978. *Alt- und mittelsteinzeitliche Fundplätze des Rheinlandes*. Kunst und Altertum am Rhein, Führer des Rhein. Landesmuseum Bonn.
- Arora, S.K. 1979. "Mesolithische Rohstoffversorgung im westlichen Deutschland." *Rhein. Ausgrabungen* 19: 1-51.
- Arora, S.K. 1979. "Der mesolithische Fundplatz Hambach 253." *Ausgrabungen im Rheinland*, Sonderheft des Rhein. Landesmuseum Bonn, 26-28.
- Arora, S.K. 1979. "Ein mesolithischer Fundplatz in der Rhinnalsperre." *Ausgrabungen im Rheinland*, Sonderheft des Rhein. Landesmuseum Bonn, 28-31.
- Arora, S.K. 1981. "Der mesolithische Fundplatz Mönchengladbach-Wickrathberg." Kunst und Altertum, Führer des Rhein. Landesmuseum Bonn, 63-66.

Southern Germany  
(Excavations since 1978)

The Abri Helga (Gem. Schelkingen, Alb-Donau-Kreis), Abri Felsstühle (Gem. Ehingen-Kirchen, Alb-Donau-Kreis), and the cave Geissenklösterle (Gem. Blaubeuren-Weiler, Alb-Donau-Kreis) were excavated. In the Abri Helga, three find horizons lying in a depression filled with ash were discovered. The finds dated to Beuronian C (8230 B.P.) The occupation represents either an autumn or an early summer camp. The Abri Felsstühle contained a child's grave belonging to the early Mesolithic period. The cave of Geissenklösterle produced only a small number of finds. Two open-air sites were also excavated: Birkichacker (Gem. Iggingen near Schwäbisch-Gmünd) and Taubried (Gem. Buchau, Kr. Saulgau). The first site belongs to the early Mesolithic period and overlooks the Lein Valley. The second site included a layer of hazel nuts mixed with a broad spectrum of artifacts from the lake sediments of the Federseemoor.

#### References

- Hahn, J. 1978. Archäologische Ausgrabungen, 11 ff.  
 Hahn, J. 1979. Archäologische Ausgrabungen, 11 ff.  
 Torke, W., & J. Kind, 1978. Archäologische Ausgrabungen, 16 ff.  
 Torke, W., & J. Kind, 1979. Archäologische Ausgrabungen, 14 ff.  
 Torke, W., & J. Kind, 1980. "Vorbericht über die Grabungen 1975-80 in dem Abri 'Felsstühle' in Mühlen bei Ehingen, Alb-Donau-Kreis." Arch. Korrb. 10.  
 Taute, W. 1980. Das Mesolithikum in Süddeutschland. Teil 2. Naturwissenschaftliche Untersuchungen. Tübinger Monographien zur Urgeschichte 5/2. 1978.  
 Taute, W. in preparation. Das Mesolithikum in Süddeutschland. Teil 1: Chronologie und Ökologie.

S.K. Arora, Rheinisches Landesmuseum

\* \* \* \* \*

#### STATEMENT FOR DEBATE

This section of the newsletter is intended as a forum for discussion of controversial topics pertinent to the study of the Mesolithic. Such statements may be submitted voluntarily and will appear in the November issue of the newsletter. Comments on and criticisms of the statement should be sent directly to the author P.A. Mellars. Dr. Mellars address is provided at the end of his statement. All comments and a reply by the author will appear in the May, 1982, issue of the newsletter. Also in this section is a response to the statement from last November regarding the nature of hunter-gatherer adaptations.

#### Towards a Definition of the Mesolithic . . .

In this brief review I shall be looking purely at the problems of defining a meaningful boundary between the Mesolithic and Upper Paleolithic periods, and not at the very different questions involved in the interface between the Mesolithic and Neolithic periods. The recent literature has been full of debates over the meaning of terms such as 'agriculture', 'domestication', 'herding', etc., and it seems clear that any agreement over the definition of the 'Neolithic' concept will hinge in one way or another on the outcome of these debates. For present purposes therefore I shall take the easy way out by assuming that these questions are more directly the concern of specialists in the later periods of prehistory, and may therefore be regarded for the time being as beyond the scope of the present discussion.

If we now turn to the lower boundary of the Mesolithic, perhaps the first question we should ask is whether we need to retain the term Mesolithic as all. Some people have taken the view that since the Mesolithic in the traditional sense is merely the final stage in the 'hunting and gathering' era, this phase could logically be subsumed within the general Paleolithic concept, and could therefore better be referred to be some label such as 'epi-Paleolithic', 'terminal Paleolithic', of something of the sort. Personally, I can see very little virtue in abandoning the term Mesolithic. Not only is the Mesolithic concept firmly embedded in almost a century of literature, but I suspect that all of us feel that at least within a European context the conventional notion of the Mesolithic period does in fact serve to isolate a whole range of behavioral attributes which contrast significantly with those of the preceding Upper Paleolithic stage. Certainly, no worker in the more northerly parts of Europe could ever be persuaded that the differences which separate the Mesolithic from the preceding Upper Paleolithic were in any sense trivial or inconsequential, and there seems little doubt that in these areas at least the concept of a Mesolithic stage is here to stay.

If we agree that the term Mesolithic must be retained, then the critical question becomes one of objective definition. At this point I shall take the pragmatic view that the overriding consideration in any question of the definition of terms is clarity and (as far as possible) precision. To express this in more practical terms, we need to have a definition of the Mesolithic which is both easy to use, and which can be applied by different workers with the least possible danger of ambiguity or confusion.

The criteria of clarity and ease of application immediately rule out any definition of the Mesolithic based on either simple technological or economic criteria. As regards technology, it is now clear that even with a relatively restricted area such as northern Europe the scale of variation between different Mesolithic industries is far too wide to be encompassed within any simple technical definition; microliths may be predominant in some industries but

14.

lacking in others; blades may be large or small; and both end-scrapers and burins show equally wide variations in both form and frequency. An economic definition of the Mesolithic might in theory stand a greater chance of success, but in practice the virtual absence of organic remains from all but a small fraction of surviving Mesolithic sites would of course make such a definition impossible to operate on a day to day working basis.

What I would suggest, therefore, is that the only definition of the Mesolithic which stands any chance of meeting the basic criteria of clarity, precision, and practicability is one expressed in strictly chronological terms. If such a definition were to be adopted, I suspect that there would be little difficulty in reaching agreement between workers in the more northerly parts of Europe as to where this chronological line should be drawn. In these areas, the date of 10,000 years B.P. has three obvious advantages: first, it has the obvious appeal of simpleness and 'roundness'; secondly, it has the added convenience of corresponding with the point at which most geologists and climatologists would now place the boundary between the 'Pleistocene' and 'Holocene' periods (Shotton 1977); and thirdly - and perhaps most significantly - it can be seen to correspond fairly closely in most areas of northern Europe (especially in the densely occupied regions of Britain, south Scandinavia, and the North European Plain) with the approximate date at which the critical ecological transition from relatively open, tundra-like vegetation to fully forested conditions took place.

In archaeological terms, the most attractive feature of this definition to workers in northern Europe is that it would draw the line between the Upper Paleolithic and Mesolithic at a point very close in time to that at which the most conspicuous behavioral adaptations to the ecological transition from open to forested conditions must inevitably have occurred. In this sense we would be in the happy position of having a chronological definition of the Mesolithic which also adhered reasonably closely to the time-honored concept of the Mesolithic as the period of 'Forest Culture' in the Gordon Childe sense. But of course the most crucial point to recognize here is that by accepting the convenience and precision of a chronological definition we can never hope to achieve a perfect, one-to-one correspondence with any kind of behavioral criteria. No form of definition can simultaneously serve two task-masters of this sort. Even within northern Europe, the precise date of the transition from open to forested conditions varies between certain limits, not only as a reflection of latitude but also with variations in altitude. Inevitably, the same problems become even more acute as one moves further south in Europe, where the date of the critical open country/forest transition becomes progressively earlier with decreasing latitude. This problem perhaps sees its classic expression in an area such as south-western France, where the whole range of ecological, economic, and technological changes which are regarded by north European workers as most distinctive behavioral features of the Upper Paleolithic/Mesolithic transition can be shown to have coincided with the transition from the Magdalenian to the Azilian episodes, at a date of around 11,500/12,000 B.P.

In reply to this kind of problem, I can only suggest two possible solutions. One would be to suggest that the boundary between the Upper Paleolithic and Mesolithic should still be defined in basically chronological terms, but that the position of this boundary should be allowed to vary - but in a formally, defined way - between different regions of Europe. In other words, it would be necessary for workers in different areas to agree amongst themselves about the most significant point of ecological transition within their respective areas, and then to propose this formally as the point at which the Upper Paleolithic/Mesolithic boundary should be drawn. The awkwardness of this kind of scheme is self evident, but it would have the advantage of allowing a definition of the Mesolithic which could be both reasonably precise and at the same time reasonably meaningful in a behavioral sense.

Quite apart from the awkwardness and complexity of such a scheme, however, it is easy to see how other practical and theoretical problems could arise. For example, how would the geographical units essential for such a definition be defined? The obvious answer would seem to be on the basis of existing national divisions, but even with this agreement it is easy to see how real difficulties could arise in countries as large as, say, France or Spain. In view of these and other difficulties, therefore, I would suggest that the best solution would be to adhere to the initial suggestion of defining the Upper Paleolithic/Mesolithic boundary in all areas on the basis of a single, uniform date. In this context, the date of 10,000 B.P. commends itself - as noted above - on three separate grounds:

1. Because of its simplicity.
2. Because it corresponds with the point at which Quaternary specialists have now agreed to draw the formal line between the Pleistocene and Holocene periods; and
3. Because it corresponds closely with the point at which we now know that the most rapid changes in both temperature conditions and world-wide sea levels were taking place in response to the glacial/post-glacial transition. In this context it should be recalled that many lines of evidence now confirm that the rise in temperature and sea levels at the close of the Pleistocene was in fact a remarkably rapid phenomenon, for which a central date close to 10,000 B.P. is indicated by several lines of dating evidence (cf. Coope 1977; Lamb 1977). The precise patterns of response of vegetation, animal populations, precipitation, etc. must inevitably have varied from region to region, but it is safe to assume that in all areas - both in Europe and elsewhere - the period centered on circa 10,000 B.P. must have been a critical period of ecological transition in many significant respects. If we are looking for a single date at which to draw a conventional line between the Upper Paleolithic and Mesolithic periods, therefore, this must surely be the obvious date to choose.

No doubt the debate over whether the concept of a separate 'Mesolithic' phase can usefully be employed beyond the limits of Europe will continue. This is a question on which current attitudes are so entrenched that changes in nomenclature would no doubt be difficult to achieve. The only point I would make is that in view of the comments made in paragraph (3) above, I personally can see no objection to the idea of recognizing some kind of formal division in the archaeological record - centered on a date of 10,000 B.P. - in all parts of the occupied world. In fact, archaeologists in most parts of the world do have their own terms for designating the 'post-Pleistocene' periods of human development (as, for example, the 'Archaic' phase in America) and there seems little doubt that the use of these terms will continue. Whether or not there is any virtue in extending the usage of the Mesolithic term beyond its conventional European context seems to me more open to debate, but it would be interesting to hear the views of other people on this point.

#### References

- Coope, G.R. 1977. Quaternary Coleoptera as aids in the interpretation of environmental history. In F.W. Shotton (ed.) *British Quaternary Studies: recent advances*. Oxford University Press: 55-68.
- Lamb, H.H. 1977. The late Quaternary history of the climate of the British Isles. In F.W. Shotton, *op.cit.*, 283-298.



Shotten, F.W. 1977. The Devensian stage: its development, limits and substages. Philosophical Transactions of the Royal Society of London, series B, 280: 107-118.

P.A. Mellars  
Department of Archaeology  
Downing Street  
Cambridge CB2 3DZ

\* \* \*

#### Continued Debate

The following correspondence was received dealing with the Statement for Debate that appeared in Volume I of the newsletter. The original statement concerned the nature of hunter-gatherer adaptations and argued for a more complex picture of such adaptations exhibiting such characteristics as larger group size, a greater degree of sedentism, non-portable bulk technology, storage of bulk food resources, and a complex social system.

"Referring to your appeal to rethink the nature of hunter-gatherer adaptations with the hidden expressed aim of rethinking the old dichotomy of hunting/gathering and agricultural societies, too, I would note that this can be regarded on several levels (ranging from money up to ideology), one of which is excavation technique, and more basically the selection of sites to be excavated.

"Look at the examined areas of Mesolithic sites: the smallness and mostly narrow limited area corresponds too often to the diminishing of the distribution of flint artifacts, creating in this way indeed a small-group society with all its implications derived from ethnographic analogies of small-group societies. So the picture will always fit the frame. I don't deny that these small-group societies will have their counterparts in the Mesolithic, but it seems that this is only one side of the flake axe.

"One sort of medicine: by enlarging the excavation areas more unexpected facts will emerge, I believe. That the difficulties of synchronizing different features will multiply should not prevent such intentions. Naturally one has to abandon grabbag excavations and to come to a special, surely long term, prospection of Mesolithic sites, the choice of which for excavation will be strongly dependent upon the preservation of organic materials.

Further, I'm convinced that the output of the 'Man the Hunter' symposium will not be an 'unfortunate subordination of archaeology to ethnography', but, treated in the real dialectical way, the time-machine that archaeology, with the (soon to be lost) present and sub-present day ethnology, will bring new energy to break cemented views, thus leading together with other sciences of man to real anthropology."

Klaus Bokelmann

"Many thanks for your most interesting letter. Your comments on excavation size are particularly relevant to Europe, where much of our knowledge is based on limited excavations and/or surface collections. As you mention, deciding whether of not various features, artifact concentrations, etc., are contemporary will be a problem, as will deciding the nature and length of occupation of a site. Solution of such problems should be high on the list of archaeological priorities.

"We consider 'Man the Hunter' to be one of the most important recent books on hunter-gatherers. The point we emphasize is that the model often applied to prehistory is derived from a limited selection of the societies the book describes. We hope that a wider discussion of its implications will, as you suggest, be fruitful. The stimulation of such discussion was our main reason for writing our Statement for Debate.

"Thank you for taking the trouble to respond. You may be interested to know that you are the only person who has so far done so."

James Lewthwaite & Peter Rowley-Conwy

\* \* \*

#### REPORT

from the President of Commission 14 (Mesolithic) to the Union International for Pre- and Protohistoric Sciences on the activities of the commission from 1977-1981.

1. Inspired by Prof. H. de Lumley, the authorities of the UISPP in 1977 created Commission 14, the composition of which conforms in large part to the suggestions of the president. Commission 14 has as a subtitle, the following designation: "The role of cultural structures of the Mesolithic in neolithization", intended to underline the conviction of increasing acceptance of the role of these local structures in the processes. The origin of our commission took place at the IX Congress of the UISPP in Nice, where the author organized Colloquium XIX, entitled: "The civilizations of the 8th through the 5th millennia before present in Europe". Some of the participants in that colloquium are today members of our commission.

2. Current composition of the commission:  
President - Stefan Karol Kozlowski - Warsaw  
Vice-President - Ari Siirinen - Helsinki  
Secretary - Bernhard Gramsch - Potsdam  
Members - Søren Andersen - Moesgaard  
Jose Aparicio Perez - Valencia  
Alberto Broglio - Ferrara  
John Grahame Douglas Clark - Cambridge  
Lev K. Koltzov - Moscow  
Peter Mordensen - Moesgaard  
Jean Georges Rozoy - Charleville-Mezieres  
Dominique Sacchi - Carcassonne  
Wolfgang Taute - Köln

3. Practical considerations prohibit the meeting of all the members of Commission 14, but even so contacts among the personnel have been actively maintained. The official meeting of the Commission last took place in Potsdam (GDR) in 1978. (The number of participants was momentarily increased.) The future of the International Colloquium on the Mesolithic was discussed (I - Warsaw 1973, II - Potsdam 1978).

The president and secretary of the commission have maintained regular correspondence dealing with the most important issues that were of concern to all at the Potsdam colloquium.

4. The II International Colloquium on the Mesolithic, described above, organized by the Museum für Ur- und Frühgeschichte Potsdam, took place in 1978 at Potsdam under the sponsorship of Commission 14 of the UISPP. The organization committee was headed by Prof. Bernhard Gramsch. The colloquium included 61 members from 15 countries of whom approximately 40 presented papers. The themes for the colloquium were divided into three groups:

- Problem of the transition from late Paleolithic to Mesolithic
- Problem of the transition from Mesolithic to Neolithic
- New research

The presentations have been published in Volume 14/15 of the Veröffentlichungen des Museums für Ur- und Frühgeschichte Potsdam in 1981. A list of the participants appears in that volume.

5. The International Conference organized by the Polish Academy of Science of Cracow (Prof. dr. Janusz K. Kozlowski) on the subject: "Problems of neolithization in certain areas of Europe", which took place in Cracow in 1979, was also an activity of our commission.

Fourteen papers were presented in the course of the conference, published in the series Prace Komisji Archeologicznej PAN, Krakow, Vol. 21, 1980.

6. In 1980, on the initiative of T. Douglas Price (Madison, Wisconsin) a journal - Mesolithic Miscellany - was created, dedicated to research on the Mesolithic. This periodical appears twice a year; to date, there have been three numbers. This review contains critiques, reports of research, and discussions. Commission 14 of the UISPP has attached its name to this publication with the agreement of Prof. H. de Lumley.

The idea of establishing a review dedicated solely to the Mesolithic had already been advanced at Colloquium I on the Mesolithic in Warsaw, but it is only T. Douglas Price who has successfully realized it.

It is appropriate to ask for some financial aid from the UISPP for Mesolithic Miscellany in order to permit the editor to improve the form of printing.

7. During the Xth Congress of the UISPP in Mexico, Commissions 10 and 14 are planning to organize a session of the Congress on the subject: "The prehistory of the Great European Plain." For this session, J.K. Kozłowski (Commission 10) and S.K. Kozłowski (Commission 14) have prepared the publication of a new vol (as a number of Archaeologia Interregionalis, Warsaw, Cracow) containing the papers of A. Broglio, J.M. Burdukiewicz, J.M. Campbell, R.M. Jacobi, J.K. Kozłowski, S.K. Kozłowski, D. Mania, M. Otte, B. Schmieder, and G. Tromnau.

8. In 1983 we anticipate the organization of the III International Colloquium on the Mesolithic at Copenhagen (Erik Brinch Petersen) which, like the I and the II Colloquiums, will bring together a large number of research specialists and will be the culmination of 5 years of activity on the nature of the Mesolithic.

9. The future efforts of the Commission will be above all to concentrate on the continuation and organization of meetings and conferences for researchers on the European Mesolithic. In this way the distribution of scientific information will be as broad as possible. In fact we have noted that meetings of this type (Warsaw 1973, Martigues 1974, Nice 1976, Potsdam 1978, and other omitted here) arouse a very lively interest in the Mesolithic, permitting greater comprehension of the problems and leading to an elaboration of a major synthesis in the future. The fruitful aspects of the meetings which have already taken place is undeniable; thanks to the meetings our speciality has ceased to be a secondary domain, known only by its initiates. Underscoring in passing that the meetings have permitted the confrontation of different schools of thought, facing the problems, most results have been rewarded with rapid publication. I think that in spite of the international colloquiums on the Mesolithic that have taken place in the last five years, it is still necessary to organize regional conferences dedicated to particular problems.

I would also suggest that activity be initiated to support the framework of specialist publications, in the form of a financial supplement from the side of the UISPP.

President of Commission 14 of the UISPP  
Prof. dr. Stefan K. Kozłowski  
pl.Komuny Paryskiej 4 m. 32  
01-627 Warszawa, Poland

Warsaw, 1 September 1981

\* \* \*

#### RECENT PUBLICATIONS

Valoch, K. 1978. Die endpaläolithische Siedlung in Smolin. Studie Archeologickeho ustavu CSAV v Brno 6(3).

Jaanits, L. & K. 1978. "Ausgrabungen der Frühmesolithischen Siedlung von Pulli." Eesti NSV Teaduste Akadeemia Toimetised 27(1): 56 ff.

Menke, M. 1978. "Zum Frühmesolithikum zwischen Jura und Alpenrand." Germania 56: 24 ff.

Woodman, P. 1981. "A Mesolithic camp in Ireland." Scientific American 242(2): 120-32.

Aaris-Sørensen, K. 1980. "Atlantic fish, reptile, and bird remains from the Mesolithic settlement at Vedbaek, North Zealand." Vidensk. Meddr. dansk Naturh. Foren. 142: 139-149.

The faunal remains of Pisces, Reptilia, and Aves from four Mesolithic settlements situated on the coast of the Atlantic Vedbaek fjord, North Zealand are presented. On the basis of the identified species, comments are given on the hydrography of the Littorina Sea and the nature and climate of the surrounding country. The effect of the applied sieving technique upon the number of fragments and species found in discussed for the various groups of animals.

Aaris-Sørensen, K. 1980. "Depauperation of the mammalian fauna of the island of Zealand during the Atlantic period." Vidensk. Meddr. dansk Naturh. Foren. 142: 131-138.

A depauperation of the mammalian fauna of the island of Zealand in the beginning of the Atlantic period (c. 5500-5000 BC) is shown by a considerable subfossil material, demonstrating the extinction of six species of the orders of Carnivora and Ungulata, namely: Ursus arctos, Mustela putorius, Meles meles, Lynx lynx, Alces alces, and Bos primigenius.

It is well known that island formation leads to faunal depauperation because of lack of new immigration in connection with low population levels caused by various biotic and abiotic factors. Thus, the isolation of Zealand by the transgressing Littorina Sea is considered to be the actual factor leading to the observed extinction. To find the right combination of biotic and abiotic factors leading to extinction of each individual species does not seem possible at present.

v. Koenigswald, W. & W. Taute. 1979. "Zwei bedeutende Quartärprofile in der Burghöhle von Dietfurt bei Sigmaringen a.d. Donau." N. Jb. Geol. Paläont. Mh. 4: 216-236.

The sedimentary filling of the Burghöhle is exposed in two sections. The lower one shows on top of Tertiary residual sediments the deposits of a glacial lake, which was dammed by the Rhine-glacier crossing the Danube valley. In the open valley these sediments vanished. The upper section documents the paleoecological change from late Pleistocene to early Holocene with rich archaeological and paleontological material. Here for the first time the Allerød could be traced in Southern Germany by the invasion of Castor and Capreolus indicating first forests.

Jacobi, R.M., H.E. Martingell, & P.J. Huggins. 1978. "A Mesolithic industry from Hill Wood, High Beach, Epping Forest." Essex Archaeology and History 10: 206-219.

Investigations have been carried out intermittently at the upland site of High Beach in W. Essex since 1913. Three pages of flints from the excavations of 1959 and 1961 are illustrated. The flint material has been analyzed into categories proposed by the "Lithic Studies Group". The material includes: 37 microliths, representing 6 sub-categories; 4 scrapers; 2 burins; and 15 notched pieces from amongst a total of 71 essential tools. There are 7 microburins, 1 adze sharpening flake, 34 cores, and 1 piece of a sandstone disc.

The greatest part of the Mesolithic activity falls within the 8th millennium bc, but an element, represented by 2 scalene triangles, extends the use of the site into at least the 7th millennium. This suggests that more than one chronological stage within the mesolithic is represented; the debitage is analyzed and may support this proposition.

Musil, R. 1980. "Die Grosshügel und Vögel der Teufelsbrücke." In Magdalenienstation Teufelsbrücke. 2. Paläontologischer Teil, R. Feustel (ed.), pp. 5-59. Weimarer Monographien zur Ur- und Frühgeschichte 3.

Evidence is presented suggesting domestication of the dog in the Magdalenian of the German Democratic Republic.

Anderson, J.M., B.F. Byrd, M.D. Elson, R.H. McGuire, R.G. Mendoza, E. Staski, and J.P. White. 1981. "The deer hunters: Star Carr reconsidered." World Archaeology 13: 31-46.

Star Carr, the Mesolithic site excavated thirty years ago, has been considered a classic example of a winter season base camp until recently reinterpreted as a specialized industrial locale. By focusing on site formation processes, we present an alternative interpretation that Star Carr was a hunting and butchering site occupied frequently for very short periods at various times of the year. Our argument considers how recent ethnoarchaeological, taphonomic, and site formation studies support this interpretation. We examine seasonality, the length of visits, and major ecofact and artifact classes, including animal bone, flaked stone tools, and antler points. We review previous interpretations.

Jacobi, R.M. 1980. "The early Holocene settlements of Wales." In Culture and Environment in Prehistoric Wales, J.A. Taylor (ed.), pp. 131-206. B.A.R., British Series, 76.

In this chapter the Mesolithic of Wales is examined in two parts - the Early and the Later Mesolithic, with a suggested boundary between the two falling somewhere within the 7th millennium b.c. While many of the Early Mesolithic find spots in Wales are in what are at present cliff-top situations, consideration of past sea-level patterns indicates that these would have been closer to the centers of substantial dry-land territories at the time of their occupation. Later Mesolithic assemblages can be recognized from coastal, lowland, and upland situations and after a discussion of the role of, and evidence for, coastal exploitation along the west coast of Britain, sites in upland and lowland situations are linked into a single economic model.

Starkov, V.F. 1980. Mezolit i neolit lesnogo zaural'ia (Mesolithic and Neolithic of the forested regions east of the Urals), Moscow, Nauka.

Arora, S.K. 1980. "Die unterschiedlichen Steinmaterialien im Mesolithikum des Niederrheingebietes." In 5000 Jahre Feuersteinbergbau, G. Weisberger (ed.), pp. 249-256. Deutschen Bergbau, Museum Bochum.

Destexhe, G. 1978. "Le gisement mesolithique de Rouvroy, commune de Flemalle." Bull. Soc. roy belge Anthropol. Prehist. 89: 85-97.

Gramsch, B. 1979. "Neue Ausgrabungen auf dem mesolithisch-neolithischen Fundplatz Friesack, Kr. Nauen." Ausgrabungen und Funde 24: 56 ff.

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\$3.00 or 2 pounds sterling. There are several methods of subscription:

1. Payment may be made directly to the editor in US\$.
2. European subscribers may pay directly into an account in Scotland:

Account Title: Edinburgh Newsletter Account  
Account Number: 70 017611  
Bank: Clydesdale Bank Ltd.  
University Branch  
Nicolson Square  
Edinburgh 8  
United Kingdom  
Sorting Code: 82-69-33

3. European subscribers may opt to send payment in sterling directly to Clive Bonsall, Department of Archaeology, University of Edinburgh, 16-20 George Square, Edinburgh.
4. Individuals for whom currency exchange may be a problem may write directly to Dr. Bonsall at the address above. Dr. Bonsall has arranged for the University of Edinburgh Institute of Archaeology to pay subscriptions in exchange for publications. Dr. Bonsall can provide the details of this arrangement.

Contributions to the newsletter with regard to any of the topics that are included are always welcome. 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 relevant 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 to the individuals listed in Volume 1.

Editor: T. Douglas Price  
Department of Anthropology  
5240 Social Sciences Building  
University of Wisconsin  
Madison, Wisconsin  
USA 53706

## NEWSLETTER CONTRIBUTION

NAME \_\_\_\_\_ INSTITUTION \_\_\_\_\_

You may use the following form or separate pages for any items you may want to contribute to the November newsletter. We are particularly interested in reports of research results, fieldwork, new publications, meetings, book reviews, recent radiocarbon determinations, and the like. Please send your contribution to T. Douglas Price, 5240 Social Science Building, Department of Anthropology, University of Wisconsin, Madison, Wisconsin, USA 53706.