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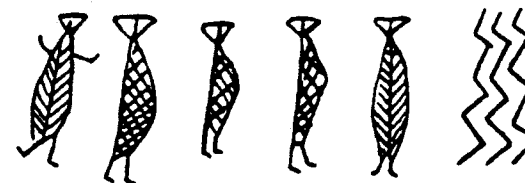
Mesolithic Miscellany appears twice a year, in May and November, as an informal communication among individuals interested in the European Mesolithic. The yearly subscription is US\$3 or £2. European subscribers should send payment directly to Clive Bonsal. North American subscribers should apply directly to the editor. Individuals for whom currency exchange may be difficult should contact Clive Bonsall at the address above. Subscriptions for 1995 and 1995 are due.

From the Editors

Please remember to contribute to this newsletter. If you enjoy reading about the work of others, chances are they will enjoy reading about yours. *Mesolithic Miscellany* publishes research reports, book reviews, national synopses of recent excavations and research, statements for debate, conference summaries, important radiocarbon dates, announcements and summaries or abstracts of recent publications to inform readers of current developments in the field. Recent Publications is a category that is particularly important and particularly difficult to keep up-to-date. Reprints or simple citations of your work would be most useful. Please prepare a brief abstract of the article or publication if one is not included in the text. We always need more reports, reviews, and papers from you, the reader. The deadline for the May issue is 30 April and for the November issue, 31 October 1989. Clive Bonsall edits the May issue and Doug Price edits the November issue. Please send your contributions to the appropriate editor.

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Mesolithic Miscellany

Volume 14, Numbers 1 & 2

A Joint Issue (Numbers 1 & 2) and a Plea

Please accept our apologies for the delay in publication of Volume 14. As you will note above, this is a joint issue, combining Numbers 1 & 2 for the year. Several circumstances have resulted in the delay and joint issue of this volume, but the most pressing of these is the low number of submitted manuscripts and other materials. If *Mesolithic Miscellany* is to continue to appear, it is essential that we receive enough material to fill each issue — that there is sufficient interest, participation, and demand to keep the newsletter running.

If you enjoy reading this publication, please submit material to appear here. Remember that all kinds of information may be of interest to our readership. Research reports, conference summaries, book reviews, statements for debate, new radiocarbon determinations, abstracts of papers, new publications, announcements, changes of address, and the like. In this issue you will find three research reports, a list. Please send us material for the next issue. Volume 15, Number 1 should appear sometime soon.

T. Douglas Price & Clive Bonsall

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THE POPE'S MESOLITHIC:
PRELIMINARY REPORT ON 1993 EXCAVATIONS OF THE LOWER LEVELS IN
L'ABRI DU PAPE (DINANT, NAMUR PROVINCE, BELGIUM)

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L'Abri du Pape is located at the base of the 100 m Freyr Cliff on the right (east) bank of the Meuse River, 12 km downstream of the French border and 2.5 km upstream of the confluence of the Lesse River. Pape is one of several terminal Paleolithic, Mesolithic, Neolithic and recent sites in caves and rockshelters of the Freyr Cliff. Nearby Grotte Margaux has recently yielded a human burial dated to 9190 ± 100 BP (Lv-1709), but without associated cultural materials (Gilot 1993).

Pape was discovered and first tested by Lacroix in 1988. Recent, Medieval, Roman and massive Iron Age and Middle Neolithic deposits were excavated in 1989-90 by Léotard (1989), who uncovered Mesolithic materials in Stratum 20 that were further tested by Lacroix in 1992. In 1993, excavations were continued over an area of 5 m (Fig. 1). All lithic and organic finds ≥ 1 cm in size were piece-plotted and all sediments were wet or dry screened through 5, 2.5, and 1 mm mesh. Botanical and malacological samples are currently being extracted from the sediment residue for analysis. The sedimentary in-filling of the rockshelter consists essentially of angular limestone spall with a silt, sand, or gravel matrix. Discrimination among levels and lenses was difficult, but was based on granulometric and color distinctions, as well as clear variations in anthropogenic content. Organic preservation is good. Strata 20 and 22/22.1 (Fig. 2) are distinguished by a high organic (especially ash) content, with clear concentrations of charcoal and fire-cracked rocks in the center of the trench nearest to the rear of the rockshelter.

Four AMS-radiocarbon dates on charcoal samples have been obtained from Geochron Labs:

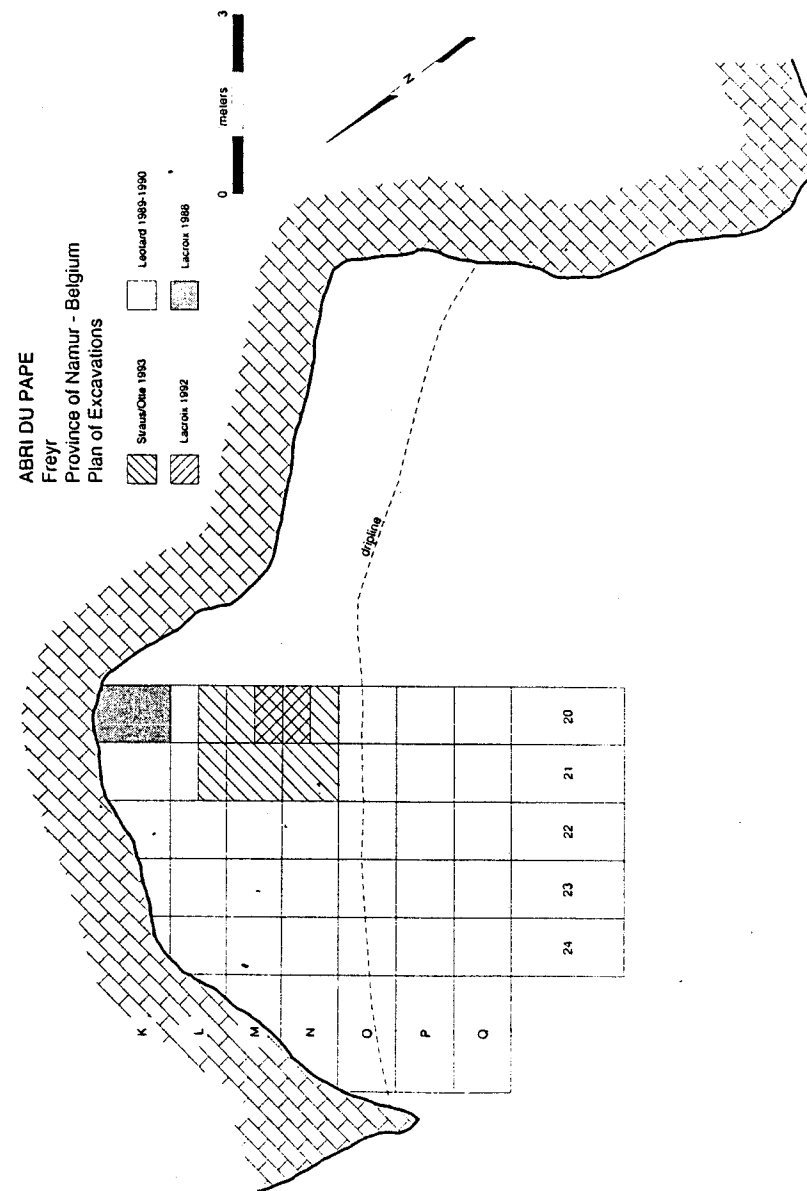
Stratum 20: $7,843 \pm 85$ BP (GX-19365-AMS)
Stratum 21: $8,817 \pm 85$ BP (GX-19366-AMS)
Stratum 22: $8,780 \pm 85$ BP (GX-19367-AMS)
Stratum 22.1: $8,756 \pm 83$ BP (GX-19368-AMS)

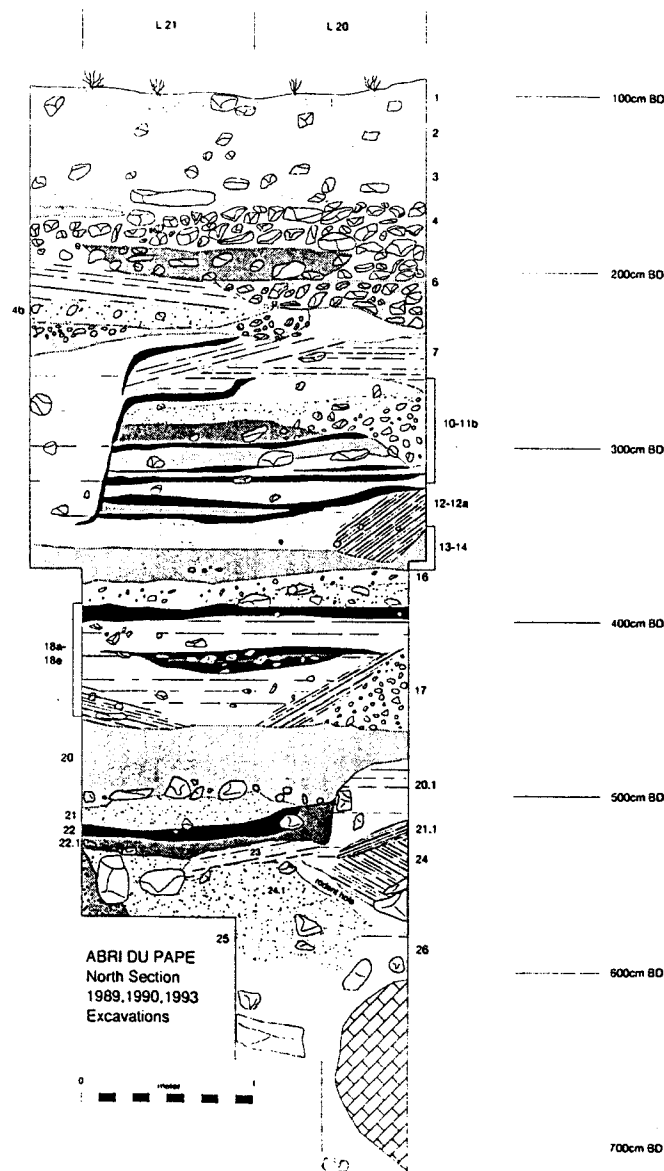
Note that the dates from the lower ensemble of levels are all within one standard deviation of one another at about 8.8 kya. There seems to have been a Mesolithic occupational hiatus of about 1000 years at Pape. Although two sondages, that reached depths about 7 m below ground surface, did not hit bedrock (or the Meuse watertable) in 1993, the basal eboulis and gravels (Strata 23-26) proved to be virtually sterile from an archeological standpoint.

A total of 2095 lithic artifacts was found in the Mesolithic levels. Stratum 20 yielded 3 cores (2 being pyramidal bladelet cores) and 1735 items of debitage, notably short, broad bladelets (35.7% of the debris) and short, thick blades (6.4%). The 24 stone tools include 4 notched bladelets, 5 notched flakes, 2 denticulates, 6 retouched pieces, 1 burin, 1 perforator and 5 endscrapers. There are also 2 antler punch tips and an artificially grooved, burned bone fragment.

Stratum 21 produced another perforator and 3 retouched pieces. Stratum 22/22.1 has 25.9% unretouched narrow bladelets and relatively more flakes (30.7 vs. 15.5%) than Stratum 20. There are also two triangles (a whole scalene and a tip fragment) and a probable Tardenoisian point tip fragment. The only other formal tools are a notched bladelet and 2 retouched pieces.

All the animal remains are derived from animals found in the Holocene faunas of Belgium. Half a dozen species of terrestrial gastropods were found, including such common taxa as *Cepaea*, *Clausilia*, *Oxychilus*, *Helicogona lapicida*, *Discus rotundatus*. Small fragments of freshwater bivalves pertain most likely to *Unio* sp. Frogs and toads dominate the am-





phibian/reptile category, but there are a few possible remains of salamander, lizard and snake. Fish are abundant in Stratum 20 and present in Strata 21 & 22. Bird bones are present or frequent in all levels.

Rodents are abundant throughout, mostly voles (*Microtus*, *Arvicola*), but with some mice (murines). Carnivores include wild cat, fox, marten and otter. A distal fibula, possibly worked into an awl, may represent a bear (*Ursus arctos*). The ungulates are best represented in the upper Mesolithic Stratum 20 and include boar, roe and red deer, and a large bovine (*Bison bonasus/Bos primigenius*). Most of the small rodents and some of the birds were no doubt the victims of owls that roosted and deposited their regurgitation pellets in the shelter. Hamster and squirrel may belong to this same taphonomic group; since they are found in the lower, archeological sterile strata, this confirms the fact that we are dealing with non-human sources. It is also possible that otters may have procured some of the fish. However, since there are no large carnivores (such as wolf), humans can be safely associated with the larger game species. They may also have trapped some of the smaller fur-bearing animals.

The few human remains in Stratum 20 may have come from intrusive Neolithic burials found by Léotard in Stratum 18, whereas the rabbit bone in Stratum 20 is a definite intrusive, since this burrowing animal only reached Belgium in the first or second millennium B.C. Some of the bovine remains in the same level could conceivably be of Neolithic cattle mixed into Stratum 20 by human or animal disturbance. However none of the bovine remains found as yet are diagnostic. No clear domesticated animals have been identified.

Possible organic residues on 2 unwashed flint blades from Stratum 22 were analyzed by cross-over immunoelectrophoresis, yielding a positive result to deer (*Cervidae* family) antiserum for one artifact. A negative result to elk (genus *Cervus*) antiserum was obtained, lending support to the suggestion that the blade had not been stained by red deer blood, but rather by that of roe deer. The animal taxa identified so far, are in agreement with a wooded environment near a river. In fact, the hunters may have bagged larger game when it came down to the water. The deposits have been sampled for pollen analysis by Cl. Schutz of the Institut de Paléontologie Humaine.

Our interim interpretation is of human use of the shelter at the very beginning and very end of the Boreal (Ardennian/Beuronian/Tardenoisian *sensu lato*?). So far, at least, no trapezes have been found at Pape. It is hoped that we can expand the excavation of the Mesolithic levels in summer of 1994. This will permit meaningful comparison with the Mesolithic of the French and Belgian Ardennes and surrounding regions (e.g., Gob 1981; Rozoy 1990).

Acknowledgements. Excavation was authorized by the landowner, Baron F. Bonaert, and by the Regional Government of Wallonia, which, together with the National Geographic Society, the University of New Mexico, and the University of Liège, funded the research. Many thanks to the hard-working crew from Albuquerque and Liège! The plans were computer re-drafted by A.E. Martinez.

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MESOLITHIC BURIAL AND DWELLING STRUCTURE
FROM THE BOREAL PERIOD EXCAVATED AT MSZANO SITE 14,
TORUN DISTRICT, POLAND: PRELIMINARY REPORT

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The site at Mszano (19°19' E; 53°13'30" N) is in the Chelmo Lake District on the right bank of the Drweca River in a dune on the sixth terrace of the river. The following well-preserved stratigraphic sequence was observed at the dune: fossil soils of Allerød, Preboreal, and Subboreal periods separated by aeolian deposits from several centimeters to ca. one meter thick. In the Boreal period the site was located on a promontory surrounded on the north by the waters of an oval lake about 1 km across and on the east by the bed of the Drweca River, flowing about 10 m below the horizon of the Preboreal soil.

During investigations conducted since 1987, 350 m² have been excavated, representing a half to one-third of the total area of the site. The site contains unusually abundant traces of settlement dating from ca. 9000 BP to ca. 3400 BP, by which time the lake was totally overgrown and the meandering Drweca had moved 1 km away toward the opposite side of this ice marginal valley. Of most interest are the remains from the first half of the Boreal period uncovered below the Preboreal soil into which they were dug. All of them, with the exception of the dwelling, may be related to early Mesolithic burial (Fig. 1:1 - 8).

So far, four human burials have been found. Three of them, located in the southwestern part of the site, form a regular row of rectangular pits about 3 m apart. The long axes of the graves are 60° NEE (graves 1, 2, 3: Fig. 1). The fourth grave (grave 4) was uncovered ca. 15 m east of graves 1 - 3 near the present slope of the site. Grave 2 (Fig. 1: 2, B) was destroyed by a Neolithic pit; the others have been well preserved. Red ochre was observed in all the graves, as well as fragments of the incisors of deer, elk, or aurochs. Burnt wooden (*Pinus silvestris*) constructions of grave chambers are proof of intentional use of fire during the burial ceremony. After they had been placed in the graves the bodies were intentionally burnt in part. So the combination of two burial rites — inhumation and cremation — can be observed here. All the graves were associated with pits in the shape of a reverse truncated cone, with a diameter of over a meter, not quite as deep as the grave (Fig. 1: A - D). In the contents of the pits and graves there was evidence for intensive burning, fragments of burnt animal bones left after consumption, and flint material. However, it is not possible to connect with certainty the flint assemblage with the intentional grave goods. The graves were dug to a depth of 120 - 150 cm below the top of the Preboreal soil (200 - 220 cm below the top of the sands of the modern river terrace). Human remains were found in only two graves. Environmental conditions preserved only intensively fired skeletal fragments.

Grave 1 (Fig. 1: 1, A): this is a rectangular, regularly-shaped pit, 220 x 120 cm, with the sides strengthened by vertical pine poles of ca. 20 - 30 cm diameter. In the grave were

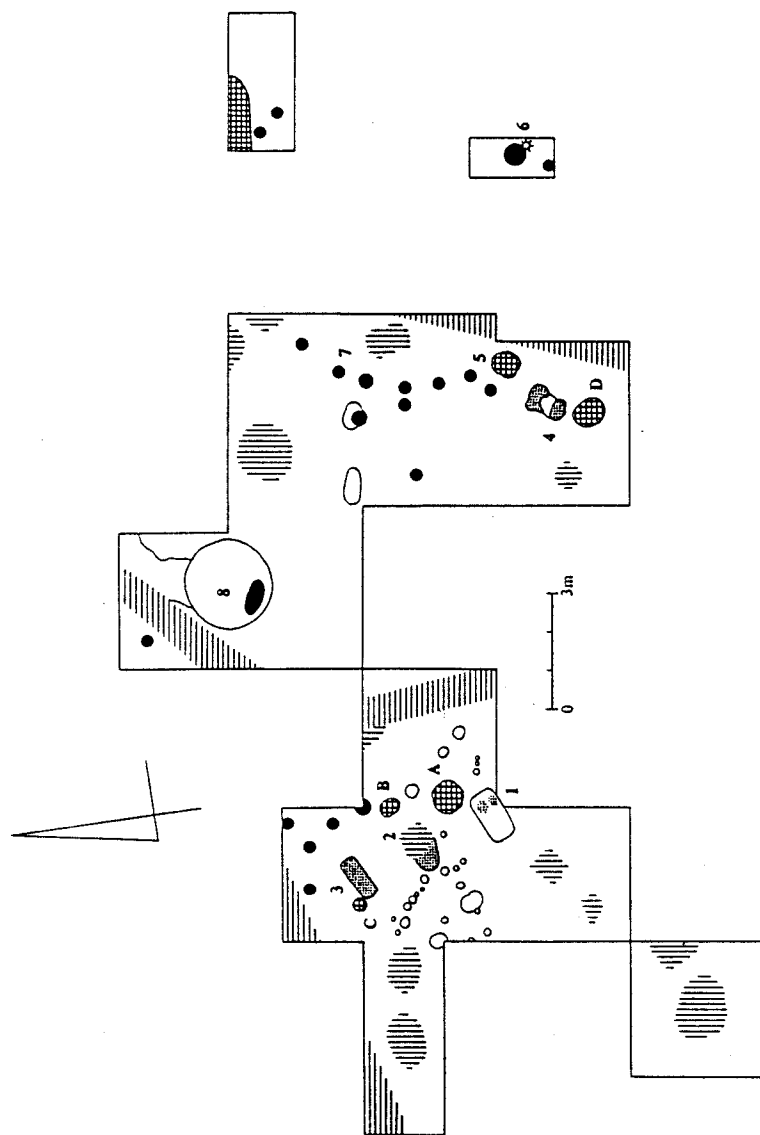


Fig. 1 Mszano, site 14. Plan of Mesolithic features: 1 - 4 : graves; A-D — pits accompanying grave; 5 — single pit; 6 — fireplace with adjoining animal burial; 8 — dwelling structure.

interred the remains of a woman 160 - 165 cm tall, age 20 - 25, and a 2 - 3-year-old child. The woman was placed on her left side with her head oriented to the NEE and slightly drawn up knees. The child was lying near her hands. There was also an unidentified bone or horn artifact in the grave. In the vicinity of the skull was a fragment of a necklace — a dozen or so wild boar incisors with drilled holes. The dead body had been covered with a container of tree bark of which large burnt fragments were preserved. In the chest area of the woman and of the child's body separate lenses of ochre mixed with sand and animal incisors were found. Similar fragments of teeth were found in the layer of burnt bark surrounding the bodies. At the height of the woman's shoulder, slightly above the level of the body, there was a narrow long 'cave' in the grave wall with an unburnt raw amber nodule whose dimensions were 6 x 4 cm. The associated pit was adjacent to the grave to the northeast. Radiocarbon dates are 8890±180 BP (Gd-6432) and 8680±130 BP (Gd-6436).

Grave 3 (Fig. 1: 3, C): a regular rectangle at the floor, 150x50cm, held the body of a 5 - 7-year-old child with the head oriented NNE. The body was covered with a layer of intensively red ochre, 30 - 35 cm thick, mixed with sand and a large number of dispersed incisors of aurochs, deer, and elk. There were also remains of more than 3% pure dye (Fe_2O_3), i.e., no less than 60 - 70 cm³. The sides of the burial pit were built up with horizontally arranged pine beams of a diameter of ca. 15 cm. In the upper part of the grave, a 25 cm nodule of limestone was found. It had many holes in it left by piddocks [marine bivalves which bore into rock - ed.]. The associated pit was adjacent to the grave on the NNW side.

Grave 4 (Fig. 1: 4, D) contained two stains of ochre on the plan, separated by an oval stain of white, loose sands. These stains were surrounded by traces of the burned construction of the grave chamber. One of the ochre stains and the layer of white sand disappeared at a depth of ca. 100 cm below the level of the Preboreal soil; the other ochre stain assumed the shape of a cylinder ca. 50 cm diameter and was cut 60 cm deeper into the gravel of the river terrace. The shape and profile of the grave indicate that this may have been a burial in a sitting ('hocker') position with the legs lowered onto a specially made opening and the face oriented to the northeast. The ¹⁴C date for this grave is 8840±170 BP (Lod-491). Unfortunately, no human bones were found in the grave. To the south a large pit lay adjacent to the grave.

About 1.5 m to the northeast of grave 4 was an interesting pit, ca. 50 x 80 cm, with regular vertical sides which was dug ca. 180 cm below the top of the Preboreal soil (Fig. 1: 5). The pit cut through several layers of sands and gravels in the terrace. The intensely black contents had traces of burning, rocks, animal bones left after consumption, and flint artifacts. Both the function and the technique for digging the pit are difficult to explain.

To the northeast of grave 4 on the level of the Preboreal soil were found small fireplaces with an average diameter of ca. 40 cm (Fig. 1: 7). The hearths contained intensely black traces of burning, overlain by a very regular stone pavement. The stones are scorched black on the underside; however, there are no other traces of burning. The fires were about 40 - 80 cm apart and formed an outline of a regular circle of ca. 10 m diameter. So far 12 fireplaces forming the circle have been found. A compact circular concentration of heavily burnt animal bones 15 - 20 cm in diameter, lay adjacent to the south

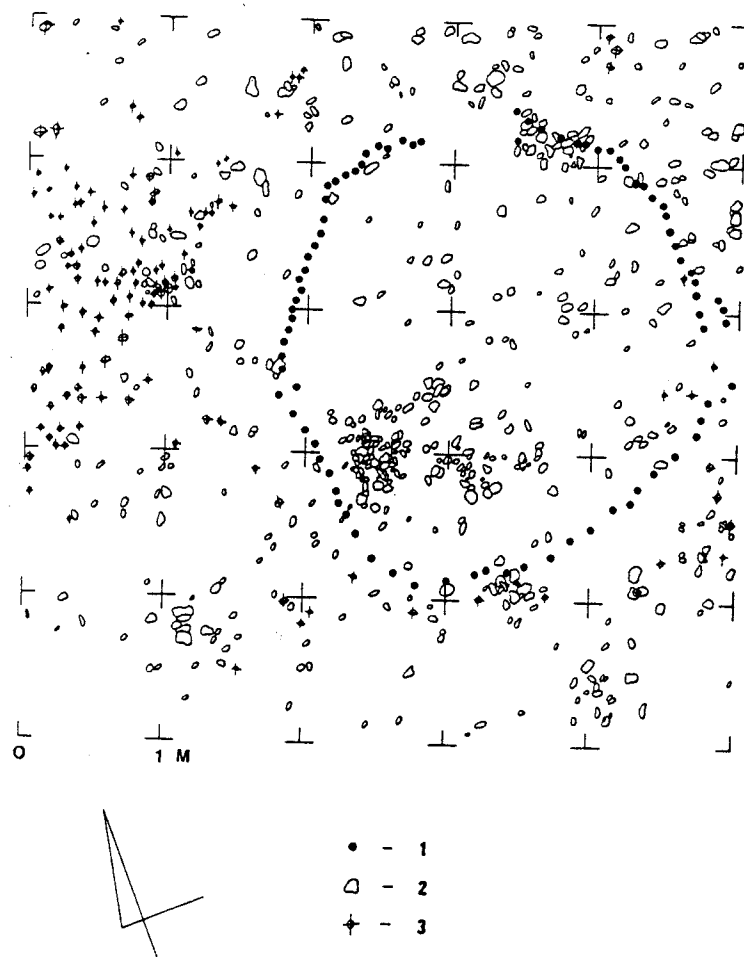


Fig. 2 Mszano, site 14. Plan of the dwelling structure: 1 — postholes at the depth of 100 cm; 2 — stones; 3 — clay daub.

of the largest of the fires in the circle (Fig. 1: 6). The shape and the completeness of the skeletal fragments within the concentration indicate that this was an intentional cremation. The bones came from two individuals — an adult wild boar and a piglet. The degree of burning indicates that it was done on a spit; the content and circular shape of the concentration may be evidence that the remains were interred in the ground in a soft organic container. The fireplace itself, ca. 60 cm diameter and cut ca. 30 cm into the bedrock, was covered with three concentric layers of very carefully arranged stones with a diameter of 15-20 cm. The diameter of each layer from the bottom was slightly larger than the previous one. The upper layer of stones formed a regular circle, 80 cm in diameter, and concave in the middle. Fires with stone pavements similar to those described above were also found in the vicinity of graves 1-3.

A dwelling structure uncovered at the site is also worth mentioning, the age of which is most probably pre-Atlantic (Fig. 1: 8; Fig. 2). Near the north slope of the site were found 84 postholes dug close to one another, forming a circle 3.15 m in diameter. The poles were sunk diagonally and must have joined over the centre of the circle. The walls of this structure were strengthened by a wattle made of twigs and perhaps reeds. The entrance into the dwelling, sloping and corridor-like, was found on the northeast side. The exterior walls of the structure were covered with a ca. 5 cm thick layer of daub in which traces of the pole-plaitwork construction have been perfectly preserved as well as those of plants, including reed and birch leaves. The diameter of the poles was 3-11 cm. An intentional division of the structure into two sections is clearly visible. The southwestern half is made of thicker, and the northeast half of thinner, poles. Inside the structure at the southwest wall an oval fireplace 50-90 cm in diameter and covered by small burnt stones was found. About 1 m southwest from the outline of the structure, other structural remains were found comprising 8+ poles sunk into the ground in a straight line. This may have been an additional shelter from the wind for the main structure.

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BARMOSE I REVISITED

H.P. Blankholm

In *Mesolithic Miscellany*, vol. 13(2), Grøn made some comments on my interpretation of Barmose I (Blankholm 1991). As will become evident, there is nothing of significance to Grøn's essentially non-substantive arguments. (1) Grøn did not get the site name right — the correct name is Barmose I, not Baremose I, which may be confused with the Bare Mosse site complex in Scania, Sweden. (2) Grøn states (1992:12), "I think it is necessary to correct these misleading figures before more researchers invest time in the analysis of this material or refer to the results". This is precisely what Grøn does not do. If he really believes that there are problems with some of the data, he should have fully documented his case, and not just referred vaguely to what in his opinion could be wrong. (3) He should have taken what he believes are the correct data, run them through all the pertinent analyses I presented in my book (Blankholm 1991), and then demonstrated that the use of his data would give results significantly different from my own. (4) Grøn writes, "Blankholm has developed a theoretical apparatus for the analysis of distributional features on Stone Age sites. As a test case he applies the method to the site of Barmosen I" (Grøn 1992:12). Apart from his confusion of theory and method (in fact, several methods were applied), the latter statement simply is not correct.

My application of the best of a number of methods (i.e., k-means analysis, unconstrained clustering, correspondence analysis, and presab) to Barmose I was not a test but a demonstration — a tutorial if you wish. Grøn might have discovered this had he cared to read the book just a little more carefully. In fact, I stated "The theoretical potential, practical limitations, and relative power and efficiency of the selected methods should now be readily apparent from the preceding chapters. In fact, all students and professionals with a basic knowledge of quantitative methods and spatial analysis should be able to proceed from here and perform their own analysis. However, in conclusion I will demonstrate how the best of methods may be applied to a purely archaeological example" (Blankholm 1991:183, see also the Danish summary, p.233). The real test, in fact, was on ethnoarchaeological material — the Mask Site (Binford 1978) — for which the behavioural parameters are known. This test clearly proved that intrasite spatial analyses are capable of delivering relevant and important information on spatial data structures for behavioural interpretation (e.g. Blankholm 1991:211).

It appears that Grøn attempts to generate a false view of my results. He indicates, but does not demonstrate, that there may be misunderstandings concerning the data from South, 0.0-1.75m West (Johansson's (1971, 1990) grid system) — could bias the results. In my opinion the effect is negligible. First, using other contextual information (e.g., profiles), the general nature of the distribution remains the same (see also Johansson 1990: 14-15, fig. 4; Johansson, pers. comm.). The only real effect is an extension of the tail towards the south and southwest. It has a minor impact on the delineation of the south-south-west edge of the hut floor, but this is negligible. In fact, the real difference in the proposed outlines for the hut floor is based on differing methodologies, not so much the actual grid system employed. Barmose I and consequently also problems with the methodological test which, in fact, is not a test but a simple demonstration of methods already rigorously tested on other material with positive results.

Now, let us look in some detail at Grøn's comments.

(A) In 1991 I wrote, "Most of the area west of the x=6 grid line was excavated in 1x1m or 0.5m units, whereas the eastern part of the site was dug in 0.25 x 0.25 m units" (Blankholm 1991:184). While this is at variance with Johansson's (1971:106) original statement, it is consistent with the actual situation (Johansson, personal files and communication), except in the case of the eastern side which, through a typing error, is described as having been dug in 0.25 x 0.25 m units, whereas the correct unit size is 0.5 x 0.5 m. However, since it is only a typing error, this had no effect on the analyses. Moreover, my own account, quoted above, was intended to give an impression on the general coarseness of the units, not the fine details. The discrepancy between Johansson's (1971) and my own account on the western side seemingly is rooted in what Johansson originally planned in terms of lay-out, whereas I looked at the excavational facts. In fact, none of the three planned 2 x 2 m units in the original lay-out were fully excavated as such. On the contrary, following rapidly changing strategies those initially large units were excavated in a variety of smaller sized units. To make it clear out of a total excavated area of 43.75 m² west of the x=6 grid line, 25.25 m² (ca 58%) ended up being excavated in 1x1m, or smaller, units which is consistent with my notions above and recently confirmed by Johansson (pers. comm.).

At Barmose I, lithic waste was recorded by (current) unit. Lumping, splitting, smoothing, contouring, etc. are commonplace (see discussions in Blankholm 1991) and need no further discussion. Johansson (1990) chose to standardize on 0.25 m² units, whereas I selected a coarser level at 1x1m for reasons already discussed (Blankholm 1991: 186). Naturally, some differences still occur in the resulting configuration depending on the selection of grid size and contour interval (Blankholm 1991). In this particular case, both contoured distribution maps (Johansson 1990: fig. 4; Blankholm 1991: fig. 109) are certainly consistent with the general nature of the distribution. It should also be re-emphasized that, in any case, the débitage did not enter directly into the quantitative spatial analysis, but was treated separately (Blankholm 1991:186). There is, however, some difference of opinion as to the delineation of the hut floor (Johansson 1971: fig. 2, 1990: fig. 6; Blankholm 1990: map overlay 2). This was discussed *in extenso* in Blankholm (1991: 185). Possibly what Grøn is aiming at is that the splitting of the frequencies of the largest excavation units — e.g., a 2.0 x 1.5 - 2.0m unit at 0.0-2.0 m North/1.5-2.0 m West, and a 2.0 x 1.75 m unit at -2.0-4.0m South, 0.0-1.75m West (Johansson's (1971, 1990) grid system) — could bias the results. In my opinion the effect is negligible. First, using other contextual information (e.g., profiles), the general nature of the distribution remains the same (see also Johansson 1990: 14-15, fig. 4; Johansson, pers. comm.). The only real effect is an extension of the tail towards the south and southwest. It has a minor impact on the delineation of the south-south-west edge of the hut floor, but this is negligible. In fact, the real difference in the proposed outlines for the hut floor is based on differing methodologies, not so much the actual grid system employed. In any case, deviations caused by the latter would probably fall within the normal margins of error associated with grid-based frequencies (Blankholm 1984, 1987). In any case, it is important not to lose sight of the forest for the trees.

(B) Tools were recorded in three dimensions during the excavation, except for pieces found in the discoverer's pit, the test excavation, and in the process of post-excavation recording (see discussion in Blankholm 1991). The latter were, wherever possible, referred

to their pertinent units, which varied in size. Not all details were available to me at the time of analysis (see also Blankholm 1991). In fact, the plans provided by Johansson (1990: figs 25-28) and myself (Blankholm 1991: figs 89-100) give a representative and reliable sample of the original distributions, as has also recently been confirmed by Johansson (pers. comm.). Again, it is important not to lose sight of the forest for the trees.

(C) Finally, Grøn states "I think one should agree with the excavator that the material should not be used for detailed distributional analysis" (1992:12). Unfortunately, Grøn does not make an exact reference. If he refers to Johansson's statement on p.99, the exact rendition of the English summary is "...the distribution of artifacts does not appear sufficient for an identification of special activity centres" (Johansson 1990:99). This certainly is a more careful statement and there is no emphasis on the word "not".

Johansson wrote this before he was aware of modern spatial analysis. In fact, when I first introduced such methods to him, he not only was delighted by the prospect, but also greatly appreciative of having Barmose I analyzed in more detail. He also seems pleased with the results (pers. comm.), although we may not agree on every single aspect. I believe it serves as a testimony to his professional skills as an archaeologist that Barmose I can be used for spatial analytical investigations.

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Recent Publications

- Andersen, S.H. 1993. Bjørnsholm. A stratified køkkenmødding on the Central Limfjord, North Jutland. *Journal of Danish Archaeology* 10: 59-96.
- Bang, G. 1993. The age of a stone age skeleton determined by means of root dentin transparency. *Norwegian Archaeological Review* 26: 55-57.
- Human skeletal remains from Bleivik, Norway, radiocarbon dated to 7950±110 year bp, were examined for age of individual. Measurement of transparent root dentin indicated an age of approximately 60 years.
- Barton, R.N.E. 1992. *Hengistbury Head, Dorset, Volume 2: The Late Upper Paleolithic and Early Mesolithic Sites*. Oxford: Oxford University Committee for Archaeology Monographs.
- Bokelmann, K. 1991. Duvensee Wohnplatz 9. Ein präborealzeitlichen Lagerplatz in Schleswig-Holstein. *Offa* 48: 75-115.
- Bratlund, B. 1993. The bone remains of mammals and birds from the Bjørnsholm shell-mound. A preliminary report. *Journal of Danish Archaeology* 10: 97-104.

- Bridault, A. 1992. The status of elk during the Mesolithic. *Anthropozoologica* 16: 151-160.

The distribution of elk remains during the Mesolithic suggests a genuine geographic disparity in elk population densities probably due to more or less favorable ecological conditions. In northern and northeastern Europe the high proportion of elk bones in faunal assemblages suggests that elk was an economic resource from Allerød until Atlantic times. Elk remains are almost logical analysis of the industry collected during the 1982 excavations in the Trieste Karst. Two horizons have been recognized within the collection: the first, attributable to the middle-recent Sauveterrian culture, characterized by a absent from the archaeological record of western Europe. Furthermore, at those sites where elk is a scarce species, only certain skeletal parts, such as teeth and foot bones, tend to be found. Several kinds of explanations are presented, some involving the mode of acquisition of the remains (hunting or exchange of elk products) and the possible symbolic status within the latest Mesolithic societies of northern Europe. This suggests that we should adopt a more open research strategy when considering earlier periods when there is less clear cut evidence for elk symbolism.

- Bridault, A., and Angel P. Bautista. 1993. La grotte à la peinture" à Larchant (Seine-et-Marne), lieu-dit Les Dégoutants à Ratard. La faune (Mésolithique, Bronze final et Gallo-Romain). *Préhistoire et Protohistoire en Champagne-Ardenne* 17: 75-81.
- Clark, R., G. Dalmeri, B. Findlayson, and S. Mithen. 1992. Excavations at Pre Alta, Trentino, Northern Italy. *Cambridge Archaeological Journal* 2: 254-262.
- Dalmeri, B. 1992. Recherche nel sito Tardopaleolitico-Mesolitico di Terlago (Trentino). Tracce di struttura d'abitato. *Natura Bresciana* 28: 433-461.
- Excavations at the Late Paleolithic-Mesolithic site of Terlago (Trento, Northern Italy). Evidence of settlements structures. Some archaeological structures have recently been discovered at the site of Terlago still in the course of excavation. The flint assemblage comes from an undisturbed situation. Evidence of settlement structures derives from many flint tools recorded in situ thanks to a topographic construction of the spatial distribution of the assemblages, both during the excavation and the laboratory study of the artifacts. Two main areas have been identified, namely: A (workshop) and B (settlement structure with end scrapers). They both probably originated from one or more intensive period of settlement. According to the available data, Terlago can be interpreted as a base camp. This opinion is pointed out by the discovery of traces of a paleosurface nearby the edge of a hut floor and two posts. This might demonstrate the presence of a protective barrier on posts related to structure B.

- Ciccone, A. 1993. L'Industria mesolitica della Grotta Azzurra di Samatorza: Scavi 1982'. *Atti Soc. Preist. Protost. Friuli-V.G.* 13-45.

The chipped stone industry from Grotta Azzurra di Samatorza: 1982 Excavations. The author presents the results of the metrical and morphosecond characterized by some trapezoidal arrowheads attributable to a phase of the Castelnovian culture, during which the structural elements of the previous horizon are still relevant.

- Day, P. 1993. Preliminary results of high-resolution palaeoecological analyses at Star Carr, Yorkshire. *Cambridge Archaeological Journal* 3: 129-140.

- Domanska, L. 1990. *The Caucasian-Black Sea Cultural Models in the Development of the Late Mesolithic Communities of the Border Zone of Eastern and Central Europe*. Wrocław: Uniwersytet M. Adama Mickiewicza w Poznaniu. (In Polish)

- Enghoff, I.B. 1993. Mesolithic eel-fishing at Bjørnsholm, Denmark, spiced with exotic species. *Journal of Danish Archaeology* 10: 105-118.

- Enghoff, I.B. 1993. Freshwater fishing from a seacoast settlement - the Ertebølle locus classicus revisited. *Journal of Danish Archaeology* 10: 62-76.

- Gautier, A., and Michal Kobusiewicz. 1992. Chwalim 1, a Mesolithic-paraneolithic site in Polish lowlands: faunal remains. *Fontes Archaeologici Posnanienses* 37: 65-75.

The site a Chwalim, situated at the edge of the Warsaw-Berlin ice marginal valley, was excavated in the period 1975-79. Nine of eleven excavation trenches were dug in peat bog and gyttja adjoining the site. The deposits present ample evidence of good faunal preservation. The faunal remains are derived from two separate settlement phases dated by radiocarbon. The older one, representing Early Mesolithic occupation of the Preboreal, and the younger, the so-called Paraneolithic of the Subboreal period. The Mesolithic assemblage consists of red deer, elk, and bison and is indicative of woodland conditions. The Paraneolithic assemblage contains a much more diversified fauna and is also indicative of woodland environment, but also of the vicinity of a large river. The swamp turtle remains indicate better climatic conditions than today. The multioccupation Paraneolithic site at Chwalim may have been more or less specialized fishing camp occupied in the spring of the year.

- Green, S. W. and M. Zvelebil. 1993. Interpreting Ireland's prehistoric landscape: the Bally Lough archaeological project. In *Case Studies in European Prehistory*, ed. by P. Bogucki, LA: CRC Press.

- Louwe-Kooijmans, L. P. 1993. The Mesolithic/Neolithic transformation in the Lower Rhine Basin. In *Case Studies in European Prehistory*, ed. by P. Bogucki, pp. 95-146. Boca Raton: CRC Press.

- Grøn, Ø., and Jørgen Skaarup. 1993. Møllegabet II — a submerged Mesolithic site and a 'boat burial' from Æro. *Journal of Danish Archaeology* 10: 38-50.

- Hartz, S. 1991. Hochatlantische Beseidlung in Schleswig-Holstein. Ein Beispiel. *Offa* 48: 115-133.

- Jacobs, K. 1992. Human population differentiation in the peri-Baltic Mesolithic: the odontometrics of Oleneostrovski mogilnik (Karelia). *Human Evolution* 7(4): 33-48.

- Jacobs, K. 1993. Human postcranial variation in the Ukrainian Mesolithic-Neolithic. *Current Anthropology* 34: 311-24.

- Jensen, P. 1993. Body size trends of Roe Deer (*Capreolus capreolus*) from Danish Mesolithic sites. *Journal of Danish Archaeology* 10: 51-58.

- Kobusiewicz, M., and Jaecck Kabacinski. 1991. Late Mesolithic Dwelling Object in Pomorsko (Western Poland). *Przegląd Archeologiczny* 38: 5-15.

The object under discussion is a kind of dugout dwelling partially sunk into dune sands. It was located on top of a dune in an area that was attractive to hunters and gatherers because it bordered on a lake with a large ice-marginal valley nearby. Bones associated with hearths within the dugout indicate that hunting red deer and roe deer had been one of the basic means of sustenance of the single family which used the dwelling over several seasons. Radiocarbon dates as well as the typology and technology of the flint assemblage found with the dugout point to a Late Mesolithic (Atlantic) age for the dwelling. Burned human bones inside the hearth, obviously treated along with animal remains as kitchen waste, suggest that cannibalism was practiced at this site. Inside the dugout a cache of pre-cores and cores of flint was found as well as traces of hematite (ochre) powder, probably imported from Rydno (Central Poland). Wear traces analysis of the flint suggests that it was used for processing of animal tissue.

- Larsson, L. 1991. Coastal Adaptation in the Early and Middle Holocene of Southern Scandinavia. *Journal of Korean Ancient History* 8: 93-118.

- Larsson, L. 1993. The Skateholm project: late Mesolithic coastal settlement in southern Sweden. In *Case Studies in European Prehistory*, ed. by P. Bogucki, pp. 31-62. Boca Raton: CRC Press.

Meyers, A., and R.B. Gourlay. 1991. Muirtown, Inverness: preliminary investigations of a shell midden. *Proceedings of the Society of Antiquaries of Scotland* 121: 17-26.

Mithen, S., Bill Findlayson, N. Findley, and Mark Lake. 1992. Excavations at Bolsay Farm, a Mesolithic settlement on Islay. *Cambridge Archaeological Journal* 2: 242-253.

Saksida, Iztok. 1992. On the historical and structural meaning of the term 'Mesolithic.' *Journal of Theoretical Archaeology* 2: 25-28.

Smith, Christopher. 1992. *Late Stone Age Hunters of the British Isles*. New York: Routledge.

This volume takes an ecological and environmental stance in its examination of the archaeological record of Paleolithic and Mesolithic hunter/gatherers in the British Isles. Two chapters introduce the reader to the basics of hunter-gatherer research, followed by details of the Late and Postglacial environment, and three case studies: hunters of the tundra, hunters of the boreal forest, and coastal adaptations. A summary chapter examines Late and Post-glacial settlement in the study areas.

Woodman, P. C. 1993. The Komsa culture. A re-examination of its position in the stone age of Finnmark. *Acta Archaeologica* 63: 57-76.

Wymer, J. 1991. *Mesolithic Britain*. Buckinghamshire UK: Shire Archaeology.

Zilhão, João. 1993. The spread of agro-pastoral economies across Mediterranean Europe: a view from the far west. *Journal of Mediterranean Archaeology* 6:5-63.

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Meetings

The Center for Documentation of the Historical Monuments in Warsaw, the Regional Centre for Studies and Preservation of Built Environment in Gdansk, The Archaeological Museum in Gdansk, and the Local Administration of the Commune Council in Puck, will organize on 4 - 8 October 1994, a symposium entitled:

The Cultural Environment of the Seaside Area during the Stone Age

as part of a series of international meetings on the Baltic Landscapes and at the Centenary of archaeological research in Rzućewo. The topic of the conference will be the preservation of coastal primeval landscapes, particularly a cultural environment of the stone age. We invite to this discussion archaeologists, landscape architects, and specialists from other fields cooperating with archaeology. Applications should be sent to

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