

A Maglemosian Hut at Lavringe Mose, Zealand

by SØREN A. SØRENSEN

In the spring and summer of 1986 Roskilde Museum investigated a mesolithic settlement in the bog known as Lavringe Mose in the interior of the island of Zealand (fig. 1). (Danish *mose* = bog).

The settlement had been discovered as early as 1943, and registered as mesolithic without any specific cultural affiliation.¹

No major investigation of the site was carried out at that time. This fact should be seen in the context of the enormous amount of work taking place in the Zealand bogs at the time. The intensive peat cutting of the 1940's revealed very many rich mesolithic sites, which had to be investigated quickly before they were destroyed. For several years archaeological efforts were thus limited to these rescue excavations, in bogs such as Åmosen and Holmegård.

Between the initial discovery of the settlement in Lavringe Mose in 1943 and the time when attention was again directed to it, there was a period when the bog lay uncultivated. Then in the early 1970's large sections of the bog were taken into cultivation, and drainage and agricultural activity once again directed interest towards the settlement.

During the 1970's and early 1980's surface collecting on the settlement produced a large assemblage. The National Museum gave permission for a small trial excavation in the period 1971–73, carried out by a student.² This excavation covered only 25 m² and yielded a small assemblage. The finds from both the excavation and the surface collections revealed that the settlement was mainly occupied in the late Ertebølle period. However, the material collected from the surface also included a couple of microliths, showing that the site had also been visited during the Maglemose period. It was against this background, and because bones had been ploughed up around the settlement, that the Roskilde Museum wished to investigate the settlement thoroughly in 1986.

TOPOGRAPHY

Lavringe Mose is a relatively small basin, lying between the towns of Osted and Rorup in central Zealand. The Lavringe River runs through the bog, and on via the Kattinge lakes to reach the sea at Roskilde Fjord about 10 km north of the bog. Across the bog runs a glacial end moraine, visible in the landscape as a low gravel hill (Milthers 1935, 21). This gravel hill has been partly eroded away in the middle of the basin, and appears now chiefly as two promontories projecting into the bog from north and south. Between these two promontories the water level has never been very high, as the eroded gravel hill forms a line of transition running across the basin. This is of interest when we compare the topography of Lavringe Mose with the positioning of the large settlement concentrations in Åmosen. In Åmosen, K. Andersen has demonstrated that a large proportion of the settlements indeed lie close to these so-called lines of transition running across the Åmosen basin (K. Andersen 1982, 177 ff). I will not discuss further the



Fig. 1. The position of Lavringe Mose is marked with a dot on the map of Zealand.

question of the topographic positioning of settlements in this article; suffice it to say that these lines of transition may be a topographic indicator of general relevance for the placing of inland settlements.³ The settlement described here lies on the end of the promontory projecting into the bog from the south.

STRATIGRAPHY

The stratigraphy of the settlement was relatively straightforward. At the top was the ploughsoil, some 20–30 cm deep, which had disturbed the Ertebølle settlement's occupation and midden layers in several places. Off the settlement, where the former lakebed ran evenly down towards the present river, the midden layer was overlain by a sterile peat horizon in several places. Under the midden layer south of the boundary hedge was a layer of gyttja resting directly on the basal gravel.

North of the boundary hedge the stratigraphy was somewhat different, in that the Ertebølle midden layer here was partially redeposited, and rested on a thick layer of broken shell material devoid of cultural remains. This shelly layer contained increasing numbers of fragments of wood and bark down towards the bottom, and on this basis could be divided into two layers. Under the layers of shell material was a layer of peat, which contained artifacts and a wooden structure dating from the Maglemose period. It is this wooden structure that is the subject of this article.

The stratigraphy near the structure is shown in fig. 2, the floor layer of the structure being in layer 5. Above the wooden structure the layers of shelly material form a sterile wedge between the Ertebølle midden layer and the Maglemose activity layer. Only a few metres south of the wooden structure the inwashed shell material is completely absent, so that it is thus of a local nature. The shelly layers were presumably washed in and deposited by powerful wave action.

THE MAGLEMOSE LAYER

The Ertebølle settlement will not be described further in this article (see Sørensen 1987). The following will concentrate on presenting the finds from the Maglemose period.

Several stakes were found hammered down in the peat under the thick shelly layers; these had stood either vertically or at a slight angle. Scattered between these were many fragments of broken and fallen stakes, and many small pieces of bark.

Analysis of a total of 17 pieces of wood, charcoal and bark from this layer gives the following result: 16 were of Scots Pine (*Pinus sylvestris*), and one of birch (*Betula* sp.).⁴ Besides these species, hazel (*Corylus avellana*) was represented by 4–5 nutshells.

The standing stakes were 5–10 cm in diameter. The fallen and broken pieces were similar, except for two rather thicker ones which were around 15–20 cm in diameter. None of the standing stakes had been sharpened in any way at their lower ends. To achieve the same effect as a sharpening, in several cases the stakes were placed with their thinnest end downwards. Whether this was the case for all of them could not be determined due to their variable states of preservation.

The standing stakes were best preserved, with lengths of up to 53 cm, towards the east, where the peat and gyttja layers were thickest. Preservation was significantly worse further west, probably because the stakes here were placed almost directly into the basal gravel. In the northwestern corner of the excavated area a number of fragments of wood lay horizontally. These were clearly parts of the structure that had been washed together here.

A few of the stakes were charred at the top, and thus show that the structure was on dry land when it was in use. Scattered between the stakes and fragments were a few charred fragments and a quantity of charcoal.

The distribution of wood in the excavated area was quite limited. To the east, where the contemporary lake shore lay, only a few pieces were found apart from the eastern end of the structure's row of stakes. To the west was more of a scatter, because as mentioned a quantity of wood was washed together and deposited at the end of the gravel hill. This washing together must have taken place when the wooden structure was flooded shortly after the site was abandoned. Considering the thickness of the stakes, one must assume that they would have been completely destroyed if exposed to the air, had they not been submerged and incorporated into the shelly layer relatively quickly. It must thus be presumed that the wooden structure was submerged quite soon after it was abandoned. This flooding can therefore not be explained in terms of the climate causing an

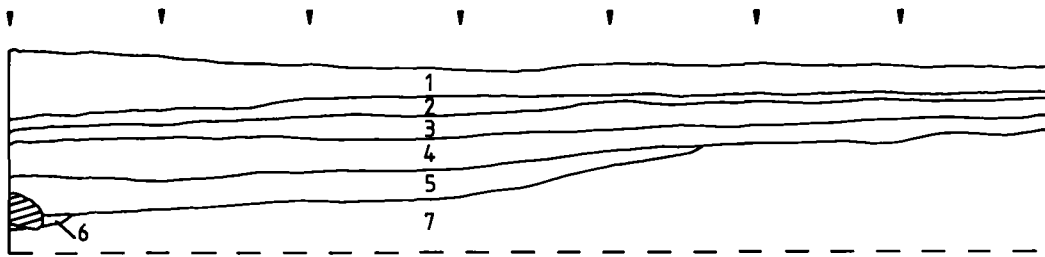


Fig. 2. The drawing shows part of the main section running east-west. The layers are as follows: Layer 1: modified peat. Layer 2: dark gravel (redeposited Ertebølle occupation layer). Layer 3: fragmented shells. Layer 4: fragmented shells containing wood, bark and peat. Layer 5: reddish brown peat (this was the layer in which was the stake structure). Layer 6: greyish green gyttja. Layer 7: basal gravel. Scale: 1:50.

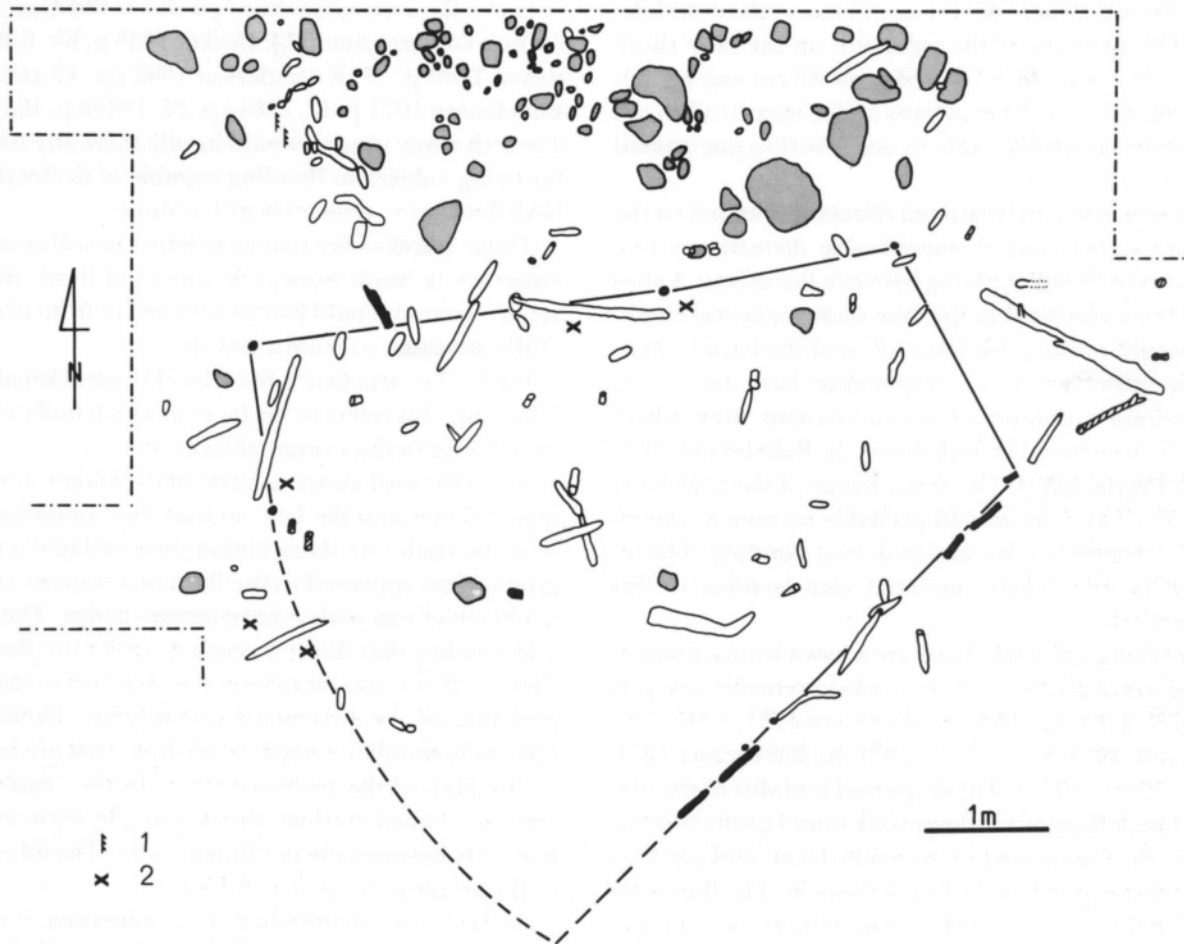


Fig. 3. Plan of the stake structure. All stones and pieces of wood in the excavation area are included. Stones are grey, wood is outlined. The vertically set stakes which form the basis of the reconstructed groundplan are black. Stakes possibly associated with the structure are hatched. The five complete microliths found in very close association with the stake structure and the two fine-toothed leister prongs are marked. 1: leister prongs. 2: microliths.

alteration in lake levels, but must be viewed within a much shorter time perspective. The explanation is thus probably to be sought in the seasonal fluctuations of the

water level of the lake, taken together with the position of the structure immediately by the lake shore.

The location of Maglemosian settlements on lake

shores is known from many other localities, and has been interpreted as evidence that the settlements were occupied in summer (C.J. Becker 1945, 63). A position on the surface of the bog so close to the lake edge would be uninhabitable at other times of the year due to damp and precipitation. The seasonal determination of these settlements is based not only upon their location, but is also considerably supported by the faunal and floral remains found on them. The explanation of the rapid flooding of the Lavringe structure could therefore be that it was built during the summer, when the water level in the lake was extraordinarily low. Increased rainfall in the subsequent winter would have raised the lake level. The position of the structure on the lake shore meant that a water level rise of some 40 cm was sufficient to submerge it. Fluctuations of this magnitude must be regarded as highly likely to occur within one annual cycle.

However, the preservational effects of flooding on the standing stakes caused considerable disturbance to a bark layer or bark floor lying between the stakes. A slow rise of the water level in the lake under peaceful conditions would presumably have allowed the bark layer to remain more intact. Corresponding bark layers are known from a number of North German sites, where they are interpreted as bark floors (K. Bokelmann 1971, 1981a, 1981b, 1985). The disturbance of the bark layer or floor at Lavringe should probably be seen as the result of a degree of wave action during flooding. The in-washed layer of shelly material also testifies to this wave action.

The remains of bark floors are known from a number of Maglemosian huts where organic remains are preserved (C.J. Becker 1945, K. Andersen 1951, 1982, A.D. Johansson 1971, S. Welinder 1971, K. Bokelmann 1971, 1981a, 1981b, 1985). The dispersed remains of the presumed bark floor at Lavringe were found partly redeposited in the lowest part of the shelly layer, and partly in their original position on top of the peat. The floor consisted mainly of pine bark, to judge from the available remains. A few quite small fragments of birch bark were however also found. It is difficult to decide whether the original proportions of pine and birch bark were so strongly weighted in favour of pine. The bark of pine is much thicker, and it consequently preserves much better than paper-thin birch bark. The largest bark fragments from Lavringe were about 10×20 cm, while at e.g. Ulkestrup the pieces of bark were up to several

metres in length (K. Andersen 1982 p. 11). Several quite thin sticks were found to the southeast, along the best preserved row of stakes. These were possibly also remains of the floor. They could have formed a support layer beneath the bark floor. None of these sticks was unfortunately identified to species.

Hearths are nearly always found in association with the other wooden structures known from the Maglemose culture. No clear evidence of a hearth was found at Lavringe, but this is hardly surprising in view of the poor condition of the floor layer. As they are known elsewhere, Maglemose hearths consisted most often only of a layer of sand, although clay could also be used in their construction (C.J. Becker 1945 p. 63, B.B. Henriksen 1980 p. 57, K. Andersen 1982 pp. 12 and 19, K. Bokelmann 1971 p. 11, 1981a p. 22, 1981b p. 181). Such a hearth made of sand would hardly leave any traces after being subject to flooding capable of destroying the bark floor, as was the case at Lavringe.

Those traces of fire that were found in and around the structure (a burnt bone, a fragment of burnt flint and some charcoal) could just as well derive from a burning of the structure as from a hearth.

When the structure's floor level is mentioned in the following, this refers to the layer in which finds and bark were found in their original location.

As mentioned above, several of the stakes were hammered down into the bog, so that they stood vertically or at an angle. As these stakes were isolated a regular groundplan appeared in the form of a trapeze, one corner of which ran under the boundary hedge. There were a few stakes that did not reach down to the floor level defined above, but these were not included in the reconstruction of the structure's groundplan. These stakes are few in number compared to those that are included in the plan of the reconstruction. In the centre of the trapeze shaped outline stood a single vertical stake, precisely between the two longer sides. The dimensions of the structure were 5.5×5.5×2 m.

As far as the reconstruction is concerned, it must be emphasised that the southeastern corner of the structure was not examined during the excavation, as it ran under the above-mentioned boundary hedge. It is possible that an extension of the excavation under the boundary hedge would have yielded a couple more preserved stakes to complete the southeastern corner of the structure. This was not carried out, partly because the trees in the hedge had thick, deep roots, and partly

because the peat and gyttja layer was not very deep in this corner. The chance of finding more preserved stakes in this area was thus minimal.

Another area where there may be a little uncertainty in the reconstruction of the groundplan is the long eastern side. This side could possibly have extended further to the northeast than the black signature on the drawing indicates (fig. 3). This is because two stakes were found beyond the end of the stake row (marked in black) and in line with it, but they did not reach down to the defined floor layer. One stake, however, did reach down to this layer; this was a little out of line with the stake row, so that it stood roughly on the centre line of the wooden structure. It could therefore very well be that this extension, marked with hatching on the drawing (fig. 3), had some function in connection with the rest of the stake structure. It would in fact be reasonable to suppose that the structure originally consisted of many more stakes than those that were hammered very deep. During flooding, most of the more loosely fixed stakes and the entire superstructure were simply washed away, together with part of the bark floor.

During flooding and the subsequent deterioration of the wooden structure, several of the vertically set stakes were put under such severe pressure that they broke close to the floor level. There were thus several broken stake segments which formed extensions of their original vertical bases. This showed that the vertically set stakes originally reached significantly above the floor level. The position of the broken pieces, forming extensions of the vertical sections from which they were broken, also suggests that the shelly layer covered the area shortly after the structure was abandoned.

THE FINDS

The quantity of finds in and around the structure in Lavringe Mose was in general very limited. It is thus questionable whether one can speak of a settlement in the traditional sense, in which the settlement is defined as an accumulation of implements and waste. I will return to this question later, in the section on the interpretation of the wooden structure.

At settlements with poorer conditions of organic preservation than Lavringe, attempts have often been made to reconstruct various activity areas and hut positions on the basis of find distributions (E. Brinch Peter-

sen 1971, O. Grøn 1983, H.P. Blankholm 1985, J. Skaarup 1979). In these cases the presence of hearths could be demonstrated by means of the concentration of burnt flint. The quantity of finds at Lavringe Mose was however so small that this method could not have been used here. One would scarcely have recognized such a small assemblage as a functional unit had it not been for the well-preserved wooden structure. As far as struck flints are concerned, only 2–3 regular microblades and about 170 waste flakes were found.

Besides this, five intact asymmetrical triangular microliths were found. Three of these were found on the floor level along the edge of the stake structure, the other two just outside it. There were also a further five broken microliths or microlith roughouts. These were more spread out through the excavated area.

It is difficult to determine what type of microliths the fragments come from, but the five complete examples are of the type usually called »Sværdborg triangles« (E. Brinch Petersen 1971).

A waisted blade (fig. 4) was also found on the floor inside the stake structure. It was somewhat thinner than those known from Klosterlund, but was very similar to the examples from Flaadet (E. Brinch Petersen 1966 p. 118, J. Skaarup 1979 p. 80).

A few artifacts were found outside the structure to the east, where the waste deposits out in the lake began. Of flint objects, one core axe and one microlith roughout were found, as well as a few blades and waste flakes. Among bone tools there is one so-called bone mace, the function of which is however unknown (fig. 4). A very similar example is known from Lundby II, where it is called a "container" (B.B. Henriksen 1980 p. 76).

The mace from Lavringe was made from an aurochs metatarsal bone. The bone was smoothed at one end, so that the articulation was completely removed. The natural hole for a sinew in the smoothed end was bored out to make it somewhat larger. Finally, the end of the bone was hollowed out, so that it appeared as a depression. This depression however, was not hollowed out so deeply that it reached the bone's marrow canal, as was the case with the Lundby II example.

A little to the north of the stake structure, in the northwestern corner of the excavation area, two fine-toothed leister prongs were found. One was completely intact, but the other was broken into three pieces which were all found within a metre of each other. These are leister prongs of the Duvensee type.

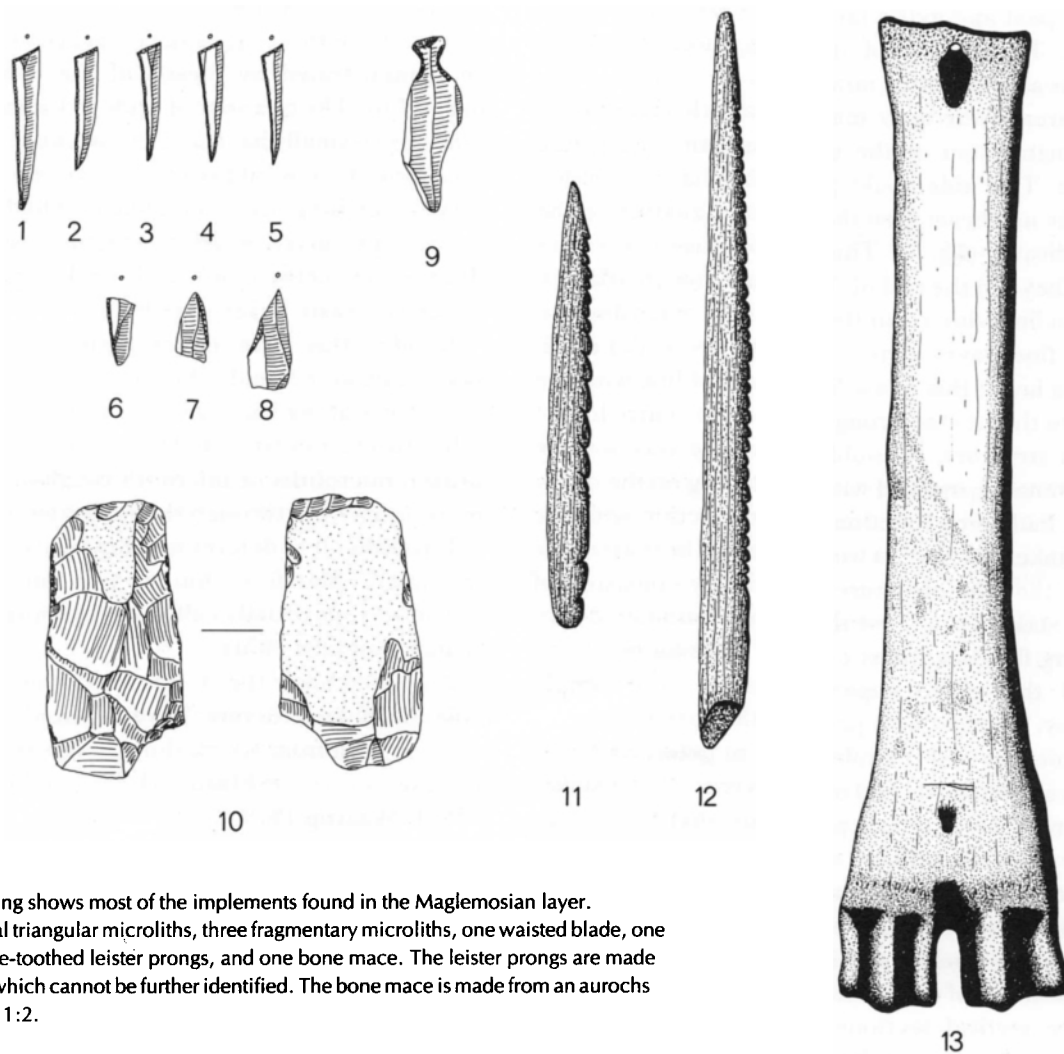


Fig. 4. The drawing shows most of the implements found in the Maglemosian layer. Five asymmetrical triangular microliths, three fragmentary microliths, one waisted blade, one core axe, two fine-toothed leister prongs, and one bone mace. The leister prongs are made from longbones which cannot be further identified. The bone mace is made from an aurochs metatarsal bone. 1:2.

THE DATE OF THE WOODEN STRUCTURE AND THE FINDS

All the artifacts and flint waste, as well as the stake structure itself, were found immediately under the shelly layer, in the uppermost couple of centimetres of the peat layer. Stratigraphically, no separate horizons of finds could therefore be discerned. The contemporaneity which the stratigraphic observations suggest is, however, contradicted by the date of the artifacts.

The two leister prongs of Duvensee type traditionally belong to the Preboreal and extend a little way into the early Boreal, which corresponds to M0/M1 in the archaeological phase division (C.J. Becker 1952 and 1953, E. Brinch Petersen 1973).

The waisted blade is a type known from several of our

earliest Maglemosian settlements, such as Klosterlund and Flaadet (E. Brinch Petersen 1966 p. 118, J. Skaarup 1979 p. 80). These settlements belong in Maglemose phase M0, which means that there is close agreement between the chronological evidence from the leister prongs and the waisted blade.

The bone mace and the core axe cannot be used for the finer chronological determination of the find – but the microliths can.

The fragmentary microliths and the microlith rough-out are of little assistance. The fragments could apparently all come from oblique triangular microliths, while the roughout could equally well be either a simple lanceolate type or an isosceles triangle. Both the last-named types would agree well with a date about the

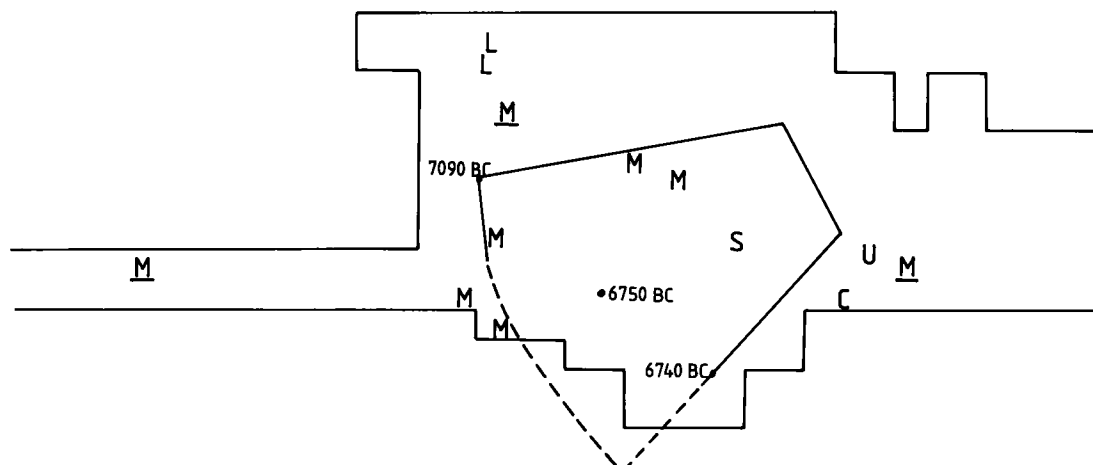


Fig. 6. Plan of the excavated area showing the position of the wooden structure and of the most important finds. The three stakes dated by radiocarbon are also marked. M = complete microlith, M = fragmentary microlith or roughout, L = leister prong, S = waisted blade, C = core axe, U = bone mace.

transition between phases M0 and M1, but because of the uncertainty regarding the actual types involved this microlithic material cannot be given any conclusive significance regarding the date.

The dating of the structure from the artifacts runs into a problem, however, when the asymmetrical triangular microliths of Sværdborg type are considered. The five complete examples form the assemblage's only intact microlith form, but their chronological position is somewhat later than that of the rest of the assemblage, as they date to phase M3 (Brinch Petersen 1971). This means a difference in time of over 500 years.

As the last datable item we have the stake structure itself, which has been radiocarbon dated. Three stakes from the structure have been dated, with the following result:

Stake 9 (K-4800): 6740 ± 120 bc;

Stake 53 (K-4801): 7090 ± 125 bc;

Stake 75 (K-4802): 6750 ± 120 bc.

This dating of the structure places it at around M0/M1 in the phase divisions, which agrees with the evidence from the leister prongs and the waisted blade.

THE FAUNA

Despite the small number of bones that was found during the excavation, no fewer than 12 different species are represented. The species and fragment totals are as follows:

Pike, <i>Esox lucius</i>	24 fragments
Rudd, <i>Scardinius erythrophthalmus</i>	1
Frog, <i>Rana</i> sp.	1
European pond tortoise, <i>Emus orbicularis</i>	4
Mallard, <i>Anas platyrhynchos</i>	6
Wigeon, <i>Anas penelope</i>	1
Ground vole, <i>Arvicola terrestris</i>	10
Otter, <i>Lutra lutra</i>	1
Red deer, <i>Cervus elaphus</i>	7
Roe deer, <i>Capreolus capreolus</i>	5
Wild pig, <i>Sus scrofa</i>	7
Aurochs, <i>Bos primigenius</i>	3

The identifications were carried out by the zoologists Kim Aaris-Sørensen and Knud Rosenlund, both of the Zoological Museum, Copenhagen.

CONTEMPORARY WOODEN STRUCTURES

For comparison with Lavringe, a series of contemporary finds are known which comprise bark floors and/or vertically set stakes. These wooden structures are all interpreted as the remains of huts with bark floors.

Within the area of the Maglemose culture several such hut finds are known, although some are in poor condition and disturbed. The majority of the huts compared to the Lavringe structure have earlier been published. An exception to this is *Holmegård IV*, which I will briefly describe.⁵

The excavation of *Holmegård IV* took place in July

SITE	FLOOR	VERTICALLY SET STAKES	HEARTH	DATING b.c.
Duvensee 8	Birch 2,5 × 2,5 m	÷	+	7690–7460 M0
Duvensee 2	Birch 5 × 5 m	÷	+	7470–7330 M0
Barmosen 1	Aspen 3 × 2 m	÷	+	7290–6380 M0
Duvensee 1	Birch 4,5 × 3,3 m	÷	+	7250–6810 M0
Duvensee 6	Birch 6 × 4 m	÷	+	7150–6890 M0
Bara Mosse 1	Pine 4,2 × 4,5 m	÷	+?	7100–6900 M0
Lundby II	Pine/Birch > 3 × 2 m	÷	+	M0
Lavrings mose	Pine/Birch 5,5 × 5,5 × 2 m	Pine	÷	7090–6740 M1
Duvensee 13	Pine 3 × 3,5 m	÷	+	6750–6710 M1
Ulkestrup 1	Pine/Birch/Alder 6 × 4,25 m	Hazel, Birch/Poplar	+	6420–6190 M2
Ulkestrup 2	Birch 6 × 4 m	Hazel	+	6230–6080 M3
Holmegård IV	Pine/Birch 6,5 × 3 m	+	+	M3

Fig. 5. The table lists a series of known wooden structures from the Maglemose culture, all interpreted as huts, for comparison with that from Lavringe.

1944, under conditions that were far from ideal from an archaeological point of view. The excavation had to fit in with the peat cutting taking place in the area of the settlement. Two, in some places three, occupation horizons could be distinguished. In the lowest two bark hut floors appeared.

Hut 1 was the best preserved, with a floor consisting of from one to two layers of bark sections, laid criss-cross. This floor formed an irregular rectangle measuring about 6.5 × 3.0 m. The peat cutting had unfortunately damaged the edges of the floor a little. Above the bark floor was a compact layer of hazel nut shells, sand and branches. A hearth had been placed near one of the long sides of the feature, and had clearly scorched the bark of the floor. The flint distribution on and around the floors was such that all the larger pieces were found outside the floors, with only a few small fragments on them. Opposite the hearth was a stone measuring about 20 × 30 cm, resting directly on the bark floor. According to the notes, the only implement found on the bark floor was a small thick flake scraper.

One vertically set stake is mentioned in connection with the bark floors; the excavator has also verbally communicated the fact that several such stakes were found during the excavation. He states, however, that no direct association could be definitely demonstrated between the bark floors and the vertically set stakes.

The floor in hut 2 was somewhat worse preserved than that in hut 1, but was of about the same shape and appearance. It lay a little deeper than floor 1, but also belonged to the lower layer. In connection with floor 2 several stakes 5–7 cm in diameter were found; they lay roughly parallel but at varying distances apart. These are believed to have acted as supports for the bark floor.

Both a hearth and a stone “seat”, very similar to those on floor 1, were found on floor 2. The concentration of flint was considerable outside the floor, but fell sharply at the transition to the floor.

It was established that both huts lay directly on the contemporary lake shore.

A survey of the other sites where organic parts of huts are preserved shows that most commonly only parts of

the bark floors are preserved. Stakes from the walls are on the other hand found very rarely. Well-documented wall stakes are only known at *Ulkestrup Lyng*, and these do not form any system and cannot be used as the basis for a reconstruction of the huts' original ground plan (K. Andersen 1982 p. 10 ff). Both the bark floors and the huts reconstructed from flint scatters are most often interpreted as the remains of rectangular huts.

The sizes of the recorded hut floors vary between c. 2.5×2.5 m and c. 4×6 m, but the smallest measurements do not come from intact floors and the actual size of the huts was probably around 4×6 m. If one examines the bark used for the floors, there is much similarity between the huts, although with some chronological development from floors made only of birch bark to floors of birch and pine bark. *Barmose 1*, with its floor of aspen bark, is the only exception to this.

As can be seen from the table (fig. 5), all the structures except Lavringe have a hearth in close association to the wooden structure, either on the bark floor itself, or just outside it. At *Bara Mosse*, however, the presence of a hearth is a little uncertain, a fact connected with the early uncovering of the find (S. Welinder 1971 p. 185 ff).

There could well have been a hearth associated with the Lavringe find, but if it consisted of a layer of sand placed directly on the bark floor, the subsequent flooding removed all trace of it. As the concentration of flint associated with the Lavringe structure was so small, it is not possible to demonstrate the presence of a hearth by means of a concentration of burnt flint.

The distribution and concentration of flint associated with the wooden structures varies considerably, and two different patterns can in fact be distinguished. One, in which the greatest concentration of flint is found directly on the bark floor, is known from the huts at *Ulkestrup Lyng* (K. Andersen 1982). The other pattern, with a limited quantity of flint on the hut floor, is known from *Holmegård IV*, *Lundby II* and *Lavringe* (C.J. Becker 1945, B.B. Henriksen 1980 p. 57 ff).

INTERPRETATION OF THE WOODEN STRUCTURE AT LAVRINGE

The only structures contemporary with that at Lavringe are all interpreted as the remains of huts, or occupation platforms. It has been pointed out, however, that it is usually impossible to demonstrate whether there ever

was a superstructure associated with the bark floors (K. Bokelmann in press). This argument cannot be refuted, but it applies to the majority of our prehistoric hut and house structures.

Even at the sites where vertically set stakes were not found associated with the bark floors, a light superstructure along the lines of a tent can easily be envisaged. For the remaining structures, with deeply fixed stakes, a more substantial superstructure can be imagined. Judged from the limited material presented in the table (fig. 5), it could seem that there is some chronological basis for the presence of vertically set stakes around the bark floors. The sample is however neither very large, nor excavated according to the same methods, so this conclusion should be treated with great caution.

As far as the interpretation of the wooden structure in *Lavringe Mose* is concerned, there are so many points of similarity between it and the other wooden structures in the table, that I feel the obvious interpretation of *Lavringe* is as the remains of a hut.

The floor of pine and/or birch bark, and the typical location close to a former lake shore, are some of the characteristics of the huts of the period. The vertically set stakes at *Lavringe* furthermore give an idea of the shape of the hut. It was clearly trapezoidal, and so diverges from the prevailing view of Maglemosian huts, which are normally interpreted as rectangular. The divergence need not however be significant for the interpretation of the feature, because intact bark floors clearly revealing the original groundplan have never been found. A damaged trapeze-shaped floor could thus easily be interpreted as the remnants of a rectangular hut. Finally, there is also the possibility that Maglemosian huts were of various shapes. The possible extension of the eastern long side can be interpreted as a windbreak connected with an entrance opening towards the lake. The presence of an entrance could not, however, be demonstrated during the excavation of the feature.

If the trapeze-shaped feature at *Lavringe* is regarded as a hut, then the interior stake, midway between the long sides, must be seen as a "roof support".

When the *Lavringe* settlement is compared not just to other settlements with huts but to other Maglemose sites in general, it is very poor in finds. An explanation of this may be found if we direct our attention to some of the ethnographic descriptions of hunter-gatherer so-

cieties. These descriptions distinguish between different types of settlement, each with their own function (Binford 1982). Settlements with large accumulations of artifacts and waste must be regarded as base camps. Smaller special purpose camps from which hunting was carried out will on the other hand not be characterised by large quantities of finds, but rather by a limited assemblage reflecting the activities carried out on the settlement. This could for example involve the curation of hunting equipment, implements used for the construction of a hut, and perhaps the hut itself.

Lavrings must be regarded as such a small hunting camp. This is a type of settlement which is usually archaeologically almost invisible, because of the small number of finds. The site cannot therefore be directly compared with the large, well-known settlements known from a series of large bogs.

Several quite small settlements are known in Sweden, which have produced a limited number of microliths and a few waste flakes and cores (M. Strömberg 1986). These are regarded as small, sunken hut sites, and are, along with Lavring, perhaps the traces of short-term hunting expeditions.

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NOTES

1. National Museum, Parish Register no. 3, Osted parish.
2. The excavation was undertaken by the then stud. mag. Bent Larsen.
3. I have previously worked with a topographic model for the location of Ertebølle and Kongemose coastal settlements. This model is partially described in A. Fischer and S. Sørensen 1983.
4. C. Malmros of the National Museum's VIII section is thanked for these determinations.
5. The excavator of Holmegård IV, C.J. Becker, is thanked for his great kindness and help regarding access to previously unpublished information about this excavation; and for permission to use the material in this article.

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