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Earthen Long Barrows and Timber Structures: Aspects of the Early Neolithic Mortuary Practice in Denmark

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More than twenty years have elapsed since Stuart Piggott suggested the possibility of a connection between the primary Neolithic cultures of Britain and the early phases of the Funnel necked Beaker (TRB) Culture of northern Europe (Piggott 1956). What appeared at that time to many scholars, not least in Denmark, to be a very far fetched idea, must today in the light of the many new Danish excavations be considered seriously. Piggott pointed to three categories of finds which could possibly be advanced as indicators of contact: Pottery, causewayed camps and 'unchambered' earthen long barrows. In all three areas decisive new results have been obtained, and although this paper deals with the earthen long barrows, both the pottery and the causewayed camps will be briefly commented upon.

C. J. Becker's division of the Danish early Neolithic pottery into four major classes, the A, B, non-megalithic and megalithic C types of pottery, is still useable for the general categorization of site inventories (Becker 1948). The neat derivative system that he built, with A originating somewhere in eastern Europe, followed by B, and terminating with two contemporary C-groups, is however no longer warranted, and especially not with reference to the radiocarbon dates. Nor can the clear-cut typological division of the pottery into the four groups be maintained, since many types of pots and ornamentation occur in more than one group. For instance the B type beaker, with lines of twisted cord beneath the rim, is an integral part of the inventory of non-megalithic C sites, and also occurs in connection with megalithic C pottery.

New primary works on the available data on pottery from the early Neolithic are badly needed, but it seems safe to state the following: The formation of the early neolithic culture in Denmark took place between 3200 and 3100 B.C. It happened as a chronological and in some ways also cultural continuation of the Ertebølle culture. In the early period, until approximately 2800 B.C., sites containing A, B or non-megalithic C pottery occur. They all seem to be fully contemporaneous, A sites being found mainly in the eastern part of Denmark and the non-megalithic C in Jutland, while the B pottery is more evenly spread. A recent suggestion (Lichardus 1976) that the B pottery should form a definite earliest strata of the TRB culture in Denmark is not supported. That it even should be contemporaneous with the later part of the Ertebølle culture is out of the question. The non-megalithic C pottery continues into the later part of the early Neolithic in the northern part of Jutland, while the megalithic C begins to be found on the islands and in the southern part of Jutland. This new pottery type gradually spreads all over Denmark, and at the beginning of the middle Neolithic around 2650–2600 B.C., only faint traces of the non-megalithic C style is still present in northern Jutland.

Since stylistical diversity in pottery is present from the outset of the early Neolithic in Denmark, and considering the results from investigations of the transition from Mesolithic to Neolithic times in kitchen middens currently being done in eastern Jutland, it is very hard to believe that the

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Neolithic culture was the result of the immigration of a new people. It is much more likely to have been based on local Mesolithic societies, which in their changing phase must have been very open to impressions coming to them through their sociocultural environment. This should be born in mind if one wishes to speak of similarities between more distant areas in pottery or any other type of artifact.

One of the most surprising new discoveries in Danish archaeology is that of the causewayed enclosures. Only ten years ago none were known and it seemed an almost absurd idea that such huge monuments could be present but undetected. Today we have five causewayed camps, of which Büdelsdorf (Hingst 1971; 1972), Sarup (Andersen 1975; 1977) and Toftum (Madsen 1978a; 1978b) are the best known. No part of the ditch systems on these sites were visible before excavation, but the sites themselves have been known from surface finds for quite some time. An important feature of the causewayed enclosures is their position in the landscape. They all lie on low promontories with watercourses and bog areas on two or three sides. This however is also true for many of the known larger middle Neolithic TRB sites, and it is possible to foresee that the causewayed enclosures in a few years will be a very common type of monument in Denmark. So far all evidence suggests that the causewayed enclosures are exclusively from the Middle Neolithic, and it may well emerge that the larger part of them—as with the five known examples—were constructed during the transition from the early Neolithic to the middle Neolithic.

At the time Piggott made his suggestions, if anything at all pointed to a connection between Britain and the TRB cultures of northern Europe, it was the 'unchambered' earthen long barrows. A clear comparison could be made with the Kujavian triangular long barrows, containing burnt timber structures in the eastern broader end, and also with some long barrows in the northern part of Germany which have no stone chambers and show evidence of burnt structures. In Denmark however reliable evidence was almost totally missing. The Salten Langhøj was an example of a long barrow containing a 'jordgrav'[1] (Becker 1948), and at Ølstrup and Lomborg in western Jutland two further examples were known (Mathiassen 1936; Thorvildsen 1941). This does not mean that barrows were never registered in connection with earth graves. Over half of them had low barrows, but it was assumed that these were all of a round or oval type.

In 1964 Piggott again reviewed the evidence for a common north European tradition of 'unchambered' earthen long barrows as seen from Britain (1967), and in 1969 Jazdzewski did the same from Poland (1973). The evidence from Denmark was however very sparse, and it was only with the publication in 1966 of the Konens Høj grave (Stürup 1966) that it was realised that Danish material might also support the existence of such a tradition. The Konens Høj grave, with its probable tent-shaped superstructure supported by posts in deep foundation pits at either end, showed a striking similarity to the Wayland's Smithy grave published only a year earlier (Atkinson 1965).

A survey a few years later of older excavation reports showed that Konens Høj was not the only grave in Denmark with a tent-shaped superstructure of wood (Madsen 1972). Two more cases could be added with certainty, and probably four others. Moreover, the investigation showed that several other earth graves could not be of the simple type they were supposed to be. The survey did not however reveal any definite connection between the graves and earthen long barrows. Only in one case besides Salten, Ølstrup and Lomborg, was a grave at Vedsted found in a long barrow bordered by Kerbstones in the manner normally associated with Danish dolmens.

The situation today is very different. More than 10 earthen long barrows, containing earth graves and showing close affinities with the British material in particular have been revealed in recent

[1] The term 'jordgrav', directly translated to earth grave—a term that will be used in the following—conveys the idea that the graves were very simple inhumation graves with only a scarce cover of earth or stone. Neither were rituals thought to be associated with the burials to any significant degree. The fact that the graves better could be termed mortuary houses shall not lead us to abandon their long established name.

excavations. As these excavations, with a few exceptions, are all either unpublished or only briefly mentioned in preliminary notes, it is intended in this paper to give a short review of the material known today, and state its relationship with the remaining north European material. It is hoped that final publications will soon be available for the more important finds, but until then this paper may prove useful.

In the following pages a catalogue of finds is given comprising early Neolithic burial structures in Denmark which include timber in their construction. The timber may be part of the graves themselves or it may constitute elements in a long barrow or other long rectangular or trapezoidal structure containing the graves. Following the catalogue, a summary will be given of the characteristic features of the graves and the structures containing them. The functional aspects of the structures will then be touched upon, and finally comparisons will be made with analogous sites in Britain, north Germany and Poland.

CATALOGUE OF FINDS

The numbers refer to the distribution map fig. 1.

1. Højtvedgård
A partly destroyed grave of presumably Konens Høj type. No traces of a barrow were detected. The associated pottery was of non megalithic C type (Madsen 1972).

2. Tolstrup (fig. 5e)
A very much devastated SE-NW orientated long barrow that at least in one phase was surrounded by kerbstones. The southeastern part of the long barrow was excavated and four possible graves were detected. Grave III was a large and richly furnished earth grave, the type of which was uncertain. The associated pottery was of an amalgamated megalithic and non-megalithic C type that could be placed at the very end of the early Neolithic period.

Grave II—perhaps the most interesting of the graves—was placed in the southeastern end of the long barrow. It consisted of a rectangular burnt clay floor, in which among other things A type pottery was found. Some sort of timber structure was probably present over the clay floor, but no traces of this were found. Surrounding the graves within the barrow area was a brown cultural layer. Spatial analysis showed that sherds of stylistically the same types as those found in grave II and III respectively was concentrated around these graves, suggesting that the cultural layer was indeed deposited in connection with the use of the graves (Madsen 1975).

3. Skivum
A partly destroyed grave of presumably Troelstrup type. No traces of a barrow were found. The associated pottery was of non-megalithic C type (Madsen and Nielsen 1977).

4. Troelstrup (fig. 3c)
A WNW–ESE orientated long barrow containing five graves. Three of these were megalithic graves, while two were earth graves. In its closing phase the barrow was surrounded by kerbstones, but when the two earth graves and one of the megalithic graves were constructed the barrow was enclosed by a palisade built in two stages, each corresponding with an earth grave. The megalithic grave was built in between the two earth graves and was the oldest but one.

The two earth graves were identical in type, the oldest and most westernly being the best preserved (fig. 2c). It measured 7 by 4 m and had an outer wall of piled stones up to 1·3 m in height. A narrow entrance opened from one end into a rectangular chamber measuring 3·6 by 0·9 m. The entrance had an inner lining of stone slabs, whereas the chamber had had wooden walls held in place by the piled stones of the outer walls. A pottery vessel found in association with the palisade trench could only be determined as early Neolithic (Kjaerum 1977).

5. Hejring (fig. 3b)
E–W orientated long barrow of uncertain length, containing two earth graves. The eastern one, of Troelstrup type, was on stratigraphical evidence the youngest. It measured 5 by 3·4 m and had outer walls built of piled

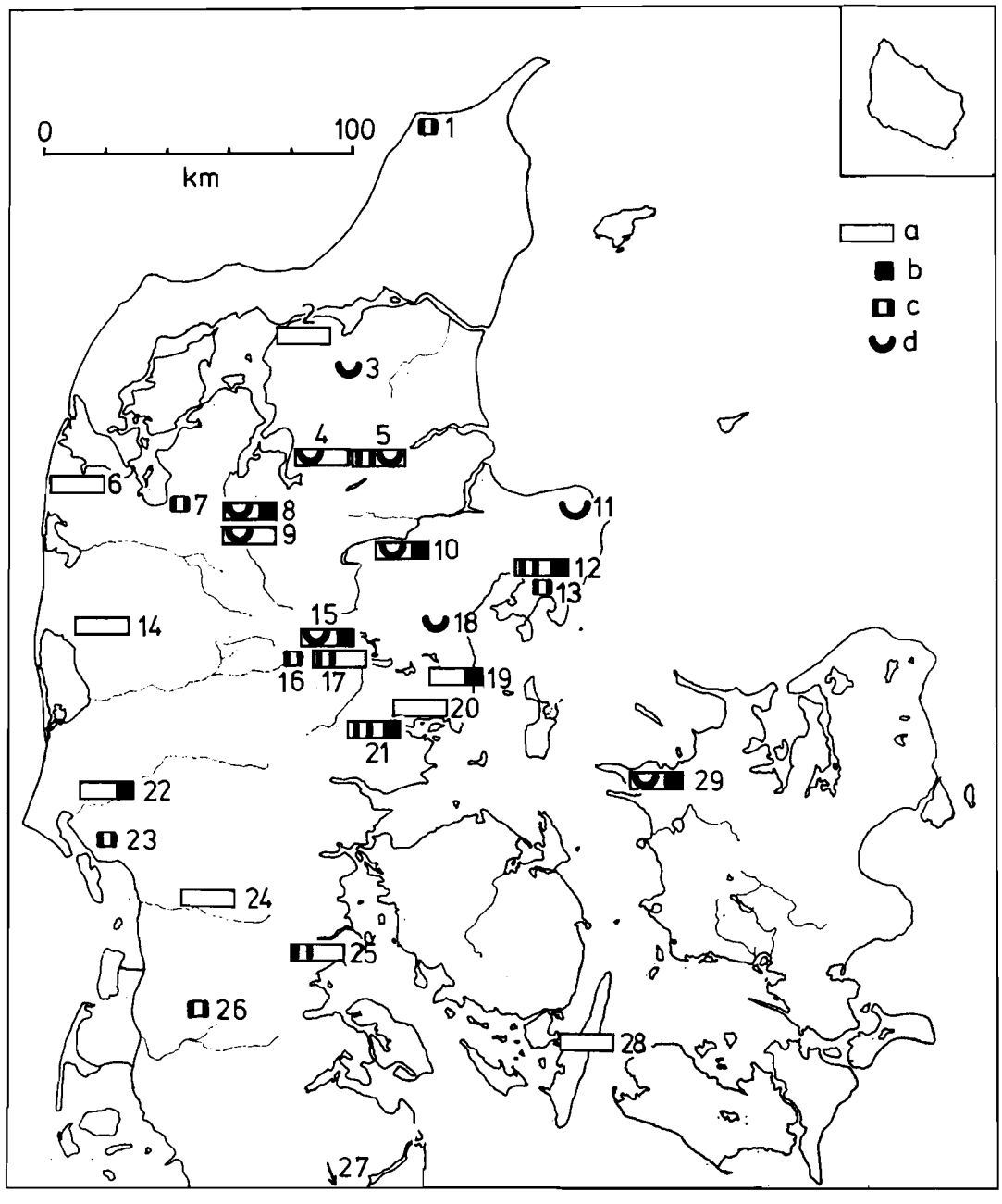

Fig. 1
Distribution map of sites. (a) Long barrows or other rectangular or trapezoidal structures containing earth graves, (b) timber facades, (c) earth graves of Konens Høj type, (d) earth graves of Troelstrup type. Numbers refer to catalogue of finds.

flat stones. An entrance from the south led into a chamber measuring 2·6 by 1·4 m. The northern end of the inner wall of the chamber was formed by a 1·4 m high stone, while the side inner walls and the roof had been built of wood. The burial layer contained a thin-butted axe and some amber beads. Traces of firing were visible in the chamber. The soil that formed the barrow around the grave was taken from two quarry ditches on either side, measuring 12 by 3–4 by 1·4–1·5 m. At the south foot of the barrow two vessels of presumably B type were found.

The other grave was of Konens Høj type (fig. 2b). It measured 4 by 2 m and had a post foundation pit in the northern end, while the southern end was formed by a large stone. The burial floor with a pavement of flat stones, on which were found approximately 130 amber beads, showed traces of fire. Further it was covered by burned layers in which the charred remains of 3–4 longitudinally placed cut planks could be distinguished. They had been standing in the post foundation pit, apparently forming a well-built gable. Short pieces of planks were still standing on end in the upper part of the pit. Four radiocarbon dates from charred wood gave a mean value of 2655 ± 100 bc (K 2394, K 2395, K 2396, K 2397) indicating a date at the end of the early Neolithic period. The Hejring graves were excavated by H. C. Vorting to whom I am most grateful for the information, and for permission to present it.

6. Lomborg
An E–W orientated long barrow measuring 24 by 10 m. An earth grave, the form of which could not be determined, was found in the barrow (Johansen 1917).

7. Jattrup
A partly destroyed grave of Konens Høj type. No trace of a barrow was found (Madsen 1972).

8. Sjørup plantage (fig. 3a)
A N–S orientated long barrow built in two or three stages, measuring 45 by 13 m. At one time the barrow was surrounded by kerbstones arranged with parallel sides and concave ends. The barrow however stretched farther north than the kerb-stone setting, covering a transverse trench. This trench probably held a timber facade. Three graves were found in the barrow, two within the kerb-stones and one between these and the facade. All three graves were partially destroyed. They were probably all of Troelstrup type and had clearly been fired. Unfortunately no pottery was associated with the graves or barrow (Jørgensen 1977).

9. Skibshøj (fig. 4d)
An E–W orientated, 70 m long trapezoidal long barrow, measuring 10 m across in the east end and only 5 m in the west end. The barrow was surrounded by kerb-stones which had been erected when building a dolmen chamber in the center of the barrow. In the broader east end an older grave was however found (fig. 2d). It was rather disturbed, but was surprisingly informative in terms of its construction. It measured 5 by 4 m and had originally had outer walls of piled stones. The inner walls were made of flat upright stone slabs in the lower part and dry walling in the upper. The 4 by 1·5 m large burial area was open to the south, and indeed the southern part may even have been a semi-open forecourt area, as the excavator suggests. The roof of the grave consisted of five longitudinally laid planks supported by the walls and by a post at either corner of the southern open end. Due to firing of the grave these roofplanks were very well preserved, and lay covering the burials. Beneath them five individuals lay fully articulated side by side. Both the skeletal remains and the burial gifts were heavily scorched by fire, and there was some evidence to suggest that the firewood was placed under the bodies. No pottery was found in connection with the graves (Jørgensen 1977).

10. Østergård (fig. 5c)
Two NE–SW orientated, not quite parallel structures. They were respectively 8 and 9 m broad, and had a minimum length of 30 m. They may have been substantially longer but soil erosion had made measurement impossible. No regular mound was noted, but the fact that 20–30 cm of deposits were present between the topsoil and the subsoil suggests that there were originally two very low long barrows. At the northeastern end of the barrows a facade was formed by three large deeply founded seperate posts. Several shallow pits that might have been postholes were found throughout the barrows and especially along their edges. Each barrow was sectioned by transverse rows of poles which were probably hurdle fences. These were especially clear in the southernmost barrow, where nine such fences were found. The probable remains of eight graves were present in the barrows, and it seems as if they were deliberately placed between the hurdle fences.

The graves were very badly preserved but at least one and perhaps two of them were of the Troelstrup type. The best preserved has already been described (Madsen 1972). A considerable amount of cultural debris that

could not be regarded as proper burial offerings was found during excavation. Distribution analysis showed that this debris tended to cluster round the graves, suggesting that it was in fact laid down in connection with their use. The pottery was of non-megalithic C type.

The excavator, Bjørn Stürup, to whom I am grateful for the information, and permission to publish, holds the opinion that both monuments were originally huge burial houses, within which the graves were placed and rituals performed. Only upon destruction of the mortuary house was the whole structure covered over with what we may term a low long barrow.

11. Rimsø

A grave measuring 3·1 by 1·7 m, showing traces of a wooden construction. The type of the grave could not be more closely determined, due to marked destruction. The grave contained non-megalithic C pottery, and the same type of pottery was found in a cultural layer surrounding the grave (Madsen and Nielsen 1977).

12. Barkaer (fig. 5a)

The two parallel 85 m long structures are the famous Barkaer long houses, about which P. V. Glob himself has recently suggested, that rather than houses for the living they were houses for the dead, erected on an earlier settlement site (Glob 1975). Both structures are E–W orientated and have timber facades in the eastern end.The northernmost contained two Konens Høj type graves side by side, and the southern one a cist and a Konens Høj type grave. Within the structures an irregular spread of pits may have been post holes. Each structure was sectioned by transverse rows of poles. At least twenty-one such hurdle fences were present in the northern one, and twenty-eight in the southern. It is of particular interest that these fence divisions could be followed through a deposit up to 0·5 m thick, which covered the structure. P. V. Glob suggests that this deposit was of aeolian origin, and that it formed while the house and its section-walls were still standing. The pottery associated with the Barkaer structures seems to be both of megalithic and non-megalithic C type (Glob 1949 and 1975).

13. Konens Høj (fig. 2h)

This 6·5 m long and 3·0 m wide grave was the first in Denmark in which the existence of deep post-foundation pits at either end of the burial floor was acknowledged. A vessel in the grave was of megalithic C type, with a radiocarbon date of 2900 ± 100 bc. There was no evidence of a barrow covering the grave, which was placed on an older settlement site (Stürup 1966; Madsen 1972).

14. Ølstrup

An E–W orientated 45 m long and 11 m wide long barrow containing two earth graves. One of these was very probably of the Troelstrup type (Mathiassen 1936).

15. Rustrup (fig. 5d)

An E–W orientated barrow 7 m broad and at least 25 m long. At the eastern end was a transverse bedding trench showing clear remains of a timber facade. Close to the facade were found two pottery vessels. From the facade stretching westwards was a 13 by 4 m slightly trapezoidal stone cover, while south of this were remains of yet another and much narrower cover. Beneath the stones was evidence of the firing of some kind of timber structure, and a few pits may be interpreted as post-holes. A concentration of artifacts that must represent a burial was found under the center of the trapezoidal stone cover. In addition a large number of pottery sherds lay spread under the stones.

Immediately west of the stone cover was a transverse row of poles, and 6 m further west a grave of Troelstrup type. This grave was represented by a 5 by 3 m large horseshoe-shaped bedding trench, that had evidently been holding the walls of a burial chamber. A few remaining stones suggest that the chamber was supported by piles of stones on the outer side. The grave had clearly been fired. All pottery found with the graves and the facade was of non-megalithic C type and three radiocarbon dates gave a mean value of 2980 bc (Fischer 1976).

16. Hedegårde

A grave of Konens Høj type with very large postholes at either end of the burial floor. The grave measured 5 by 2·3 m and was not apparently covered by any barrow. The only burial offerings were amber beads which gave only a general date to the early Neolithic (Fischer 1976).

17. Salten Langhøj

A probable Konens Høj type grave in an at least 20 m long barrow. The grave containing among other things a copper ornament could not be dated more closely than the early Neolithic period (Becker 1948; Madsen 1972).

18. Aarslev
This almost 6 by 3 m large grave excavated in the preceding century can now be determined as probably of the Troelstrup type. The grave contained among other things megalithic C pottery (Madsen 1972).

19. Rude (fig. 4e)
An E–W orientated 9 m wide and at least 58 m long barrow containing two cists. The cists were opened in the preceding century, and on that occasion a copper ornament, presumably an early neolithic import, was found tied to the wrist of a body. At recent excavations the skeletal remains were encountered again in a very bad state of preservation. Surprisingly, a radio carbon date gave 2310 ± 85 bc for the skeletal material (K-3123 B) suggesting a date late in the middle neolithic TRB culture. This is even more surprising as the barrow in fact turned out to be early neolithic.

A deep foundation trench across the eastern end of the barrow showed the burned remains of a timber facade (fig. 6). The 5 m long trench had held 7 split trunks with a diameter of 70–80 cm, set side by side with the flat sides turned against the barrow. The firing had left the outer layers of the trunks standing as strips of charcoal, but also remains of a lighter superstructure in the form of charred branches was found. Connected to the facade was a small horseshoe-shaped court with an entrance from the east. The fence—probably a hurdle fence—around the court was set with poles 10 cm in diameter and 15–20 cm apart. The forecourt fence had not been burned and there is some evidence to suggest that it belonged to an earlier, possibly unburned, facade that had been standing in exactly the same spot as the later fired one. In the burned layers in front of the facade three B type pots were found, which must have fallen down from the structure during its destruction. Two radiocarbon dates of charcoal from the facade gave 2960 ± 90 bc (K-3124) and 2860 ± 70 bc (K-3124) (Madsen 1980).

20. Toftum (fig. 3d)
An E–W orientated long barrow 16 m wide and at least 60 m long, revealed during excavations of two megalithic graves. These turned out to be placed secondarily in the barrow, which was surrounded by a post bedding trench holding 70–90 cm large split trunks, with their flat sides turned against the barrow. Within the bedding trench a cultural layer, mainly containing pottery and some flint, was found. The cultural layer was clearly a primary deposit. This was shown by the existence of a nicely built fireplace with ash layers around it, and the fact that large parts of single pots were present with a concentration of sherds around the fireplace. With this in mind it was suprising to find in one of the profiles that the cultural layer, going up to the palisade but not beyond it, seemingly covered the cuttings for the palisade. The pottery was of non-megalithic C type. The excavations, which are being carried out by the author, are to be continued.

21. Bygholm Nørremark (fig. 5b)
An E–W orientated barrow that in its latest phase was 80 m long, surrounded by a double row of kerb-stones and containing a middle neolithic passage grave. However, only the oldest phases are of interest here. In the earliest we have a facade in the eastern end surrounded by postholes suggesting a more elaborate timber construction of some kind. Immediately west of the facade we have a grave of the Konens Høj type placed in the middle of what was presumably a house. It has four roof-bearing posts, two of which were also the gable posts in the grave. The walls are marked by a row of posts, and two transverse rows of poles are found immediately to either end of the grave. It seems natural to regard these as room dividers in the house, but some evidence indicated that the poles were later than the house. In connection with the facade, the remains of a megalithic C beaker were found. The posts in the house and the facade were all pulled up after use.

In the next phase a barrow was erected. It was 60 m long, slightly trapezoidal in form and surrounded by a post bedding trench. Associated with this barrow a wooden coffin containing four adult individuals was found in the subsoil. Immediately west of the grave a transverse row of poles was found. The profiles showed very clearly that these were sectioning the barrow. The excavations, which are still not completely finished, are being conducted by Preben Rønne, to whom I am most grateful for the information and permission to publish it.

22. Teglvaerksgården (fig. 4b)
Covered by a possibly later round barrow, a NNW–SSE orientated trapezoidal palisade enclosure was uncovered. It measured 14 m in length, was 4 m wide in the broader SSE end, and only 2 m in the NNW end. The bedding trench, which was on average 0·7 m wide and 0·6 m deep, had held closely set posts 20–30 cm in diameter. In the broader end the bedding trench widened to 1·6 m and had a depth of 1·2 m. It had here clearly

contained a heavy facade, and there were found related sherds of megalithic C pottery. There was no obvious grave, but in a large oval pit that partly cut the bedding trench an early Neolithic amber bead was found (Faber 1976).

23. Brøndum (fig. 2f)
A 4 m long and 2 m wide grave of the Konens Høj type situated under a 'low barrow'. No pottery was associated with the grave (Madsen 1972).

24. Harreby (fig. 4a)
A narrow trapezoidal E–W orientated palisade enclosure measuring 20 m in length. It was only 3 m wide in the broader east end and 1 m wide in the west. No grave was detected in connection with the enclosure, but to one side of the structure some megalithic C sherds were found. The enclosure was covered by a later barrow. Excavations were undertaken by Flemming Rieck to whom I am grateful for the information and permission to publish it.

25. Vedsted
In an only partly preserved E–W orientated long barrow surrounded by kerbstones a grave of Konens Høj type was found. The grave measured 4·5 by 2·5 m and was also E–W orientated. It contained a megalithic C vessel (Madsen 1972).

26. Søgard (fig. 2g)
An E–W orientated grave of Konens Høj type measuring 3·5 by 1·5 m. No pottery was associated with the burial but in the layer surrounding the grave megalithic C pottery was found. There was no certain evidence of a barrow covering the grave (Sterum 1979).

27. Bordersholm (kreis Rendsburg, Schleswig)
A NE–SW orientated grave of Konens Høj type, containing megalithic C pottery. There were no traces of a barrow covering the grave (Hingst 1976).

28. Stengade
Two E–W orientated structures interpreted and published as long houses were excavated at this site (Skaarup 1975). Recently P. V. Glob has suggested that both were mortuary houses erected on an earlier settlement site (Glob 1975). To the present author the problem seems more to be: were there any houses at all? The Stengade II structure may be a house and in that case probably used for habitation, but the Stengade I structure is undoubtedly a ploughed up long barrow containing one and possibly two earth graves. The barrow must however have been erected on an earlier settlement site, and the barrow-fill stemmed from this settlement. The grave in the barrow contained megalithic C pottery.

29. Lindebjerg (fig. 4c)
An E–W orientated long barrow with a minimum length of 36 m surrounded by kerb-stones. Neither the west nor east end could be identified with any certainty, and the kerb-stones may have been part of a regular dolmen which has now disappeared. Close to what is now considered the east end a facade was located. This structure was clearly fired, and four related B pots were found. Immediately west of the facade was a 22 m long trapezoidal stone cover, which was only partly preserved. The eastern broader end of this constituted a grave with a horseshoe-shaped bedding trench for the walls of the chamber. The burial floor consisted of a stone paving on which nothing was found (Liversage 1970).

THE GRAVES

It has always been acknowledged that considerable variability in form is present among the earth graves. Even after the new feature of the timber superstructure was discovered, it was clear that not all, and not even the majority, of earth graves would conform to the model of the simple tent-shaped mortuary house (Madsen 1972). The newer excavations have definitely proved this. We may today distinguish between three well-defined main types, and we cannot be certain that even more types will not be found.

The Konens Høj type had solid gables at either end of the burial floor. They were probably triangular and in most cases built of timber deeply set in stone-packed foundation pits. There are however a few examples where a large triangular stone constitutes the gable (no. 5, and Navndrup (Albrectsen 1941). The timber-built gables seem to have been made of skilfully hewn rectangular planks. This at least was the case at Hejring (no. 5), where three or four planks were preserved in a charred state. The side walls probably leaned against a central ridge supported by the gables, giving the whole structure the appearance of a wooden tent. As the gables were solid, access to the grave probably took place through an opening in the side. Where evidence is available, the superstructure seems to have been deliberately destroyed. Mostly this was done by fire, but in at least one case the posts had been dug up (no. 21).

The timber structures of the Konens Høj type are evidently self-supporting. This makes the use of stones in the construction unnecessary, and indeed many of the graves are only sparsely furnished with stones. They are thus easy to overlook, and when found they are easy to mistake for simple inhumation graves, because the post foundations at either end are often invisible before the burial floor has been removed. A total of 14–16 examples of the Konens Høj type has so far been found. At least six of these are associated with megalithic C pottery and only one with non-megalithic C pottery. This could possibly mean that the type is generally rather late in the early Neolithic. This is supported by the radiocarbon dates from Hejring (no. 5).

Another type—the Troelstrup type—is a long rectangular grave with an entrance in one end, often with what seems to be a small forecourt or passage. The side and rear walls are built of stone, wood or a combination of both. Possibly all examples of this type had heavy outer supporting walls of piled stones, but normally little trace of these has remained. Where they are fully preserved they reach a height of over one metre. Three variants can be distinguished.

The Troelstrup type proper has inner walls built mainly or totally of wood. As there is no trace of post foundations in this variant the wood chamber has probably been a more or less self-contained unit, and possibly, as suggested in connection with Troelstrup itself (no. 4), a closed box with floor, vertical sides and flat roof.

The Skibshøj variant has vertical inner walls built entirely of stone, as is seen at Skibshøj itself (no. 9). A flat roof of longitudinally laid planks was placed on these walls.

The Lindebjerg variant has inner walls built entirely of wood set in a horseshoe-shaped bedding trench. The walls were vertical and the roof was probably flat, as suggested at Lindebjerg itself (no. 29).

As was the case with the Konens Høj type, there is evidence of deliberate destruction of the graves of the Troelstrup type through firing. This was especially true at Skibshøj where both the bodies and the burial gifts were heavily scorched by fire. A total of at least 15 graves can be referred to this type. Four of these are associated with non-megalithic C pottery, two with B pottery and one with megalithic C pottery. This combined with the early radiocarbon dates from Rustrup (no. 15) and Lindebjerg (no. 29) may suggest that the Troelstrup type is generally rather early. In comparisons with the Konens Høj type it should however be noted that the distribution of the two types does not cover exactly the same area (fig. 1). This may in part be responsible for the different pottery associations. Further the finds from Hejring (no. 5) show a case of a very late Troelstrup type grave.

The third type of grave is a regular coffin. Originally most earth graves were thought to contain such coffins, but this has definitely been proved wrong. Only a few graves can be coffin-graves, but that they do occur is shown in the westernmost grave at Bygholm Nørremark (no. 21). Four individuals were here buried side by side in a large rectangular coffin. The grave was not deliberately destroyed, as the collapse of the barrow after the lid rotted could clearly be seen in the profiles.

We may still be able to add to these three types. For example the rectangular burned clay floor

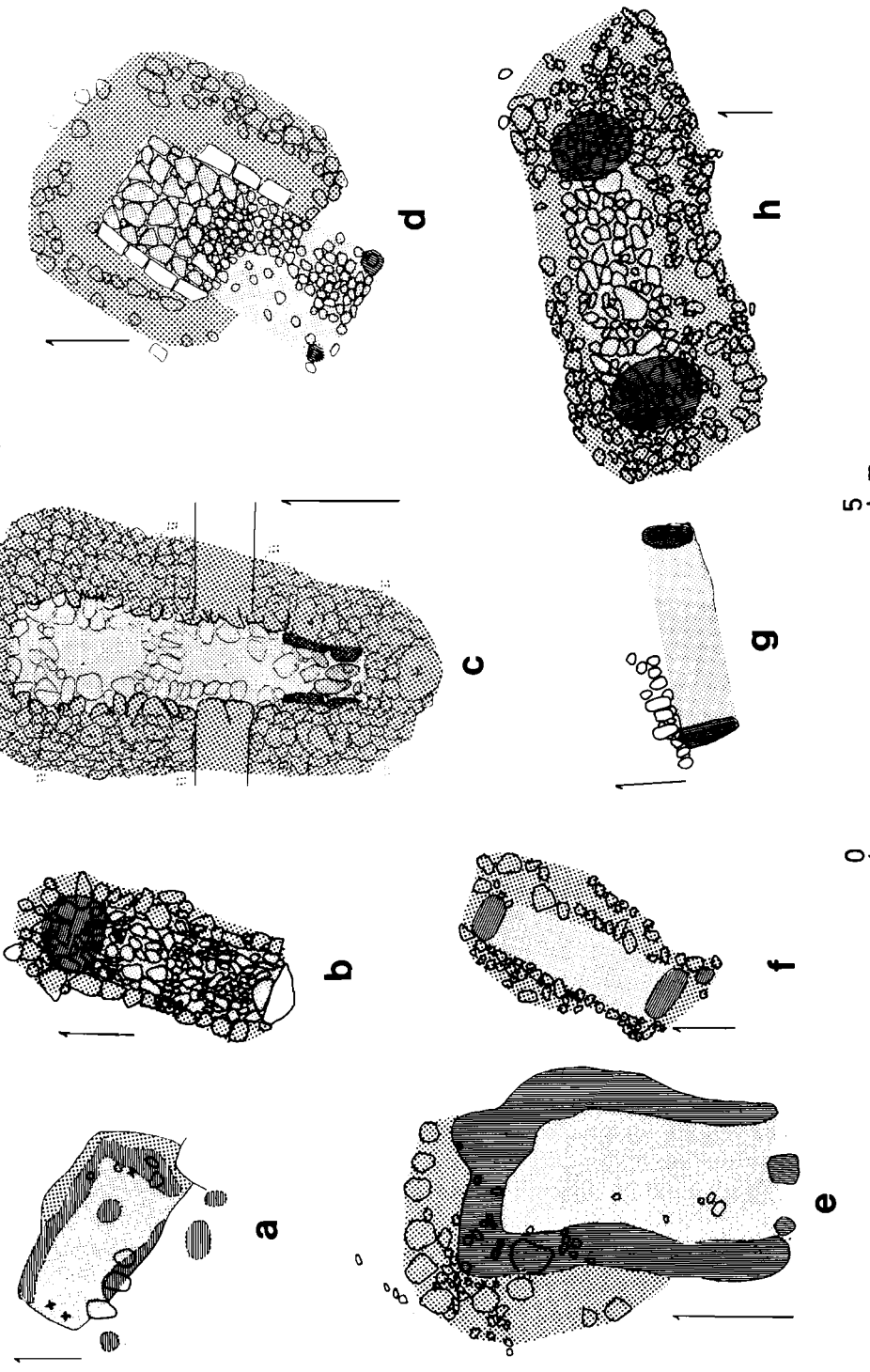

Fig. 2
Graves: (a) Rimsø, (b) Hejring, (c) Troelstrup, (d) Skibshøj, (e) Rustrup, (f) Brøndum, (g) Søgård, (h) Konens Høj.

in the east end of the Tolstrup barrow (no. 2) does not fit with any of them. It may be that a rectangular mortuary building like that encountered in the Gaj 1 barrow in Poland (Chmielewski 1952) could have been present here but there is no positive evidence for this.

It has always been implicitly assumed that the Danish earth graves were built for only one person. It was therefore an enormous surprise to find that the Skibshøj (no. 9) and Bygholm Nørremark graves (no. 21) contained five and four persons respectively. These finds become even more important if we survey the information on skeletal remains from other earth graves. Only in two cases have bones been preserved in such good condition that the number of people could be determined. A grave at Lohals on Langeland contained 2 persons (Hansen 1917) and a grave from Dragsholm on Zealand contained one person (Petersen 1974). This seems to indicate that although the earth graves could be built for one person, they were more often intended for several people. Furthermore as all skeletons lay undisturbed and fully articulated it is reasonable to assume that all the burials in a grave took place simultaneously.

LONG BARROWS, FACADES AND PALISADE ENCLOSURES

In 19 of the structures mentioned here, long barrows and/or palisade enclosures were encountered. When I use the word Long barrow, it is in a rather free manner, as in seven cases there was in fact no clearly demonstrable barrow covering the structure. Cultivation in Denmark has however been very intense, and the ploughing up of barrows is common. The fact that the structures have been preserved, generally with a minimum deposit of 10–20 cm between the topsoil and subsoil, is a rather good indication of at least a low barrow, and from well preserved barrows such as the Rude barrow (no. 19) we know that these could be very low (approximately 0·7–1·0 m). The possibility that some of the structures were never visible as regular barrows should however not be totally ruled out, although they must have been covered over with some deposit after their use.

The form of the barrows is mostly rectangular but a few of trapezoidal form are seen (no. 9, 21). Three barrows were surrounded by palisade enclosures (no. 4, 20 and 21). Two of these were rectangular while the third (no. 21), together with two enclosures, where no likely contemporary barrow was detected, were of trapezoidal form (no. 22, 24).

One very striking feature of the structures is the transverse bedding trench in the eastern end holding a timber facade. In eight cases it is present (no. 8, 10, 12, 15, 19, 21, 22 and 29) and only in three cases can we be sure that it is missing (no. 4, 9 and 28). Mostly the facades seem to have been destroyed by fire. The most obvious case is the Rude barrow (no. 19). The fire had here preserved traces not only of large split trunks in the bedding trench but also of some lighter superstructure made of branches. Right in front of the facade three vessels were found in the burned layers. These had probably fallen down from the facade when it was destroyed. Finds of pots, often fully preserved, with nearly all of the known facades makes this an important observation.

Also at the Rude barrow a forecourt area enclosed by a fence was found immediately east of the facade. The court had an entrance from the east. Elaborate timber constructions associated with the facade were also in evidence at Bygholm Nørremark (no. 21) where a ring of postholes surrounded the bedding trench.

Turning to the position of the graves in the barrows, we may first note that there are often two or three graves in a barrow, while as many as five are recorded. Normally they are placed in the central axis of the barrow. The Konens Høj type graves are with one exception (no. 5) placed longitudinally in the barrow, while the Troelstrup type with two exceptions (no. 10 and 29), is placed transversely. This means that the entrance almost always opened to the side of the barrow, and, if we take the evidence from the Troelstrup type, to the south side.

In three cases more elaborate structures are found, immediately west of the facades. At Bygholm Nørremark (no. 21) there is an indisputable house with a Konens Høj type grave in the centre. At

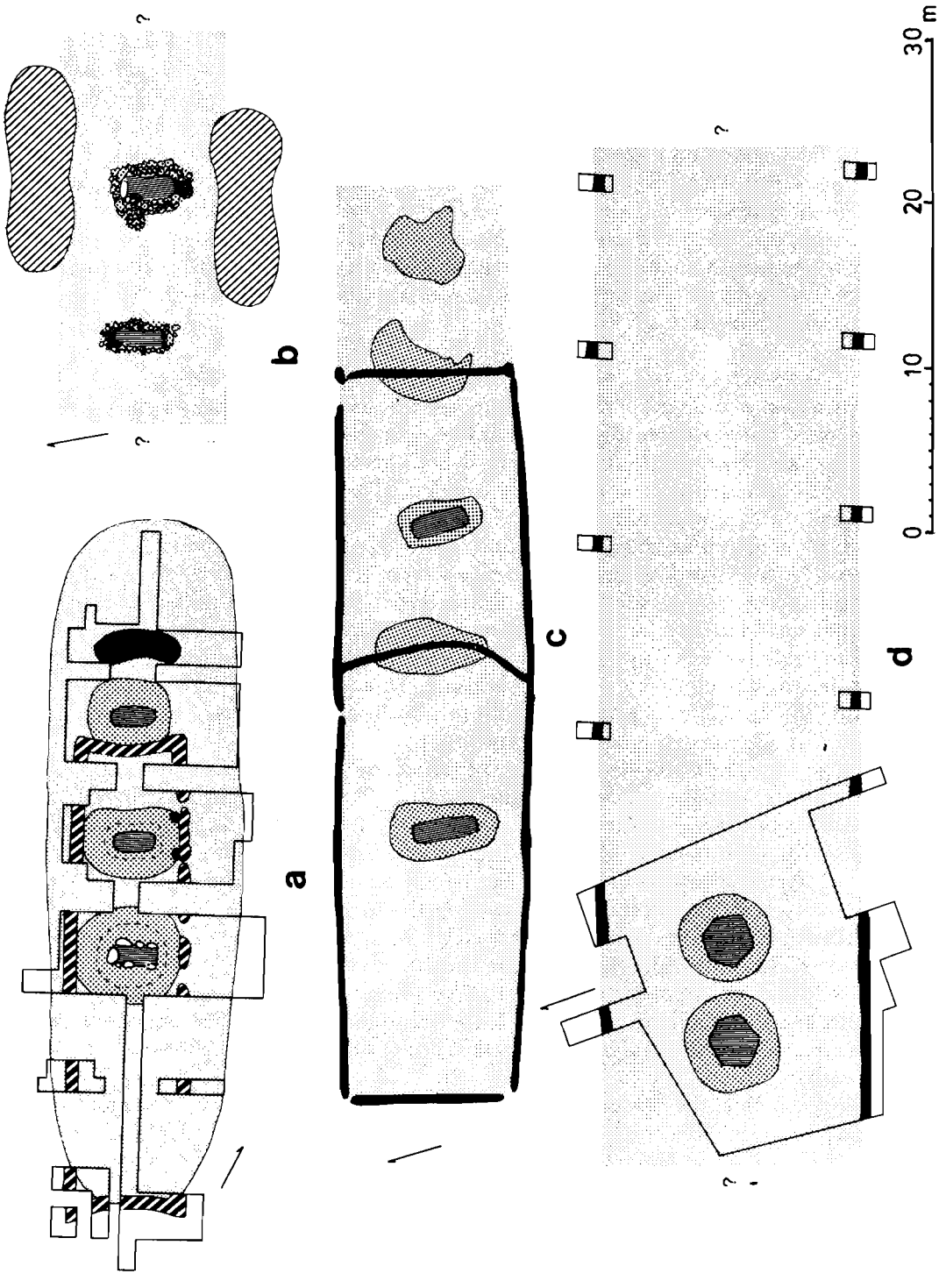

Fig. 3
Long barrows: (a) Sjørup Plantage, (b) Hejring, (c) Troelstrup, (d) Toftum.

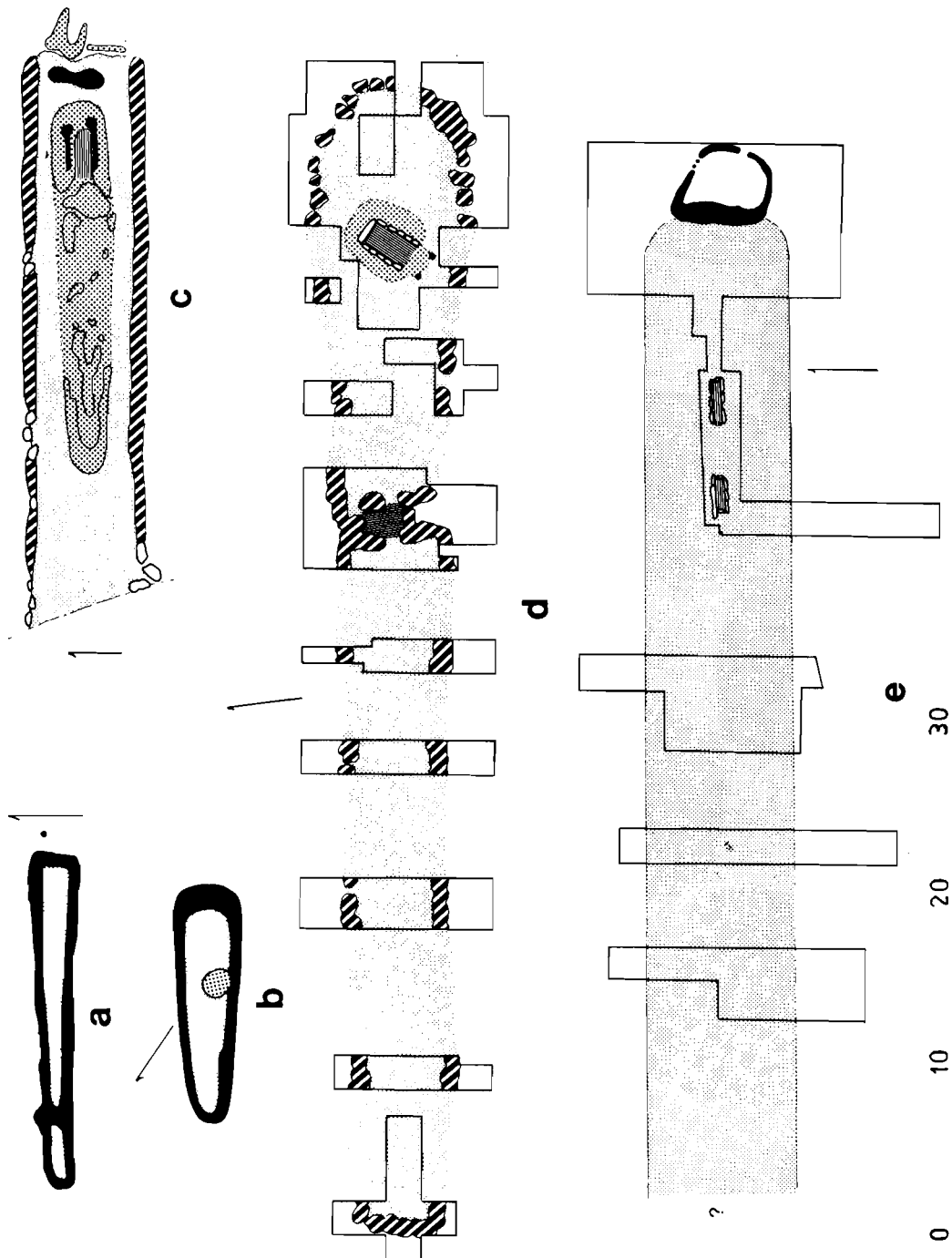

Fig. 4
Long Barrows and palisade enclosures: (a) Harreby, (b) Teglvaerksgården, (c) Lindebjerg, (d) Skibshøj, (e) Rude.

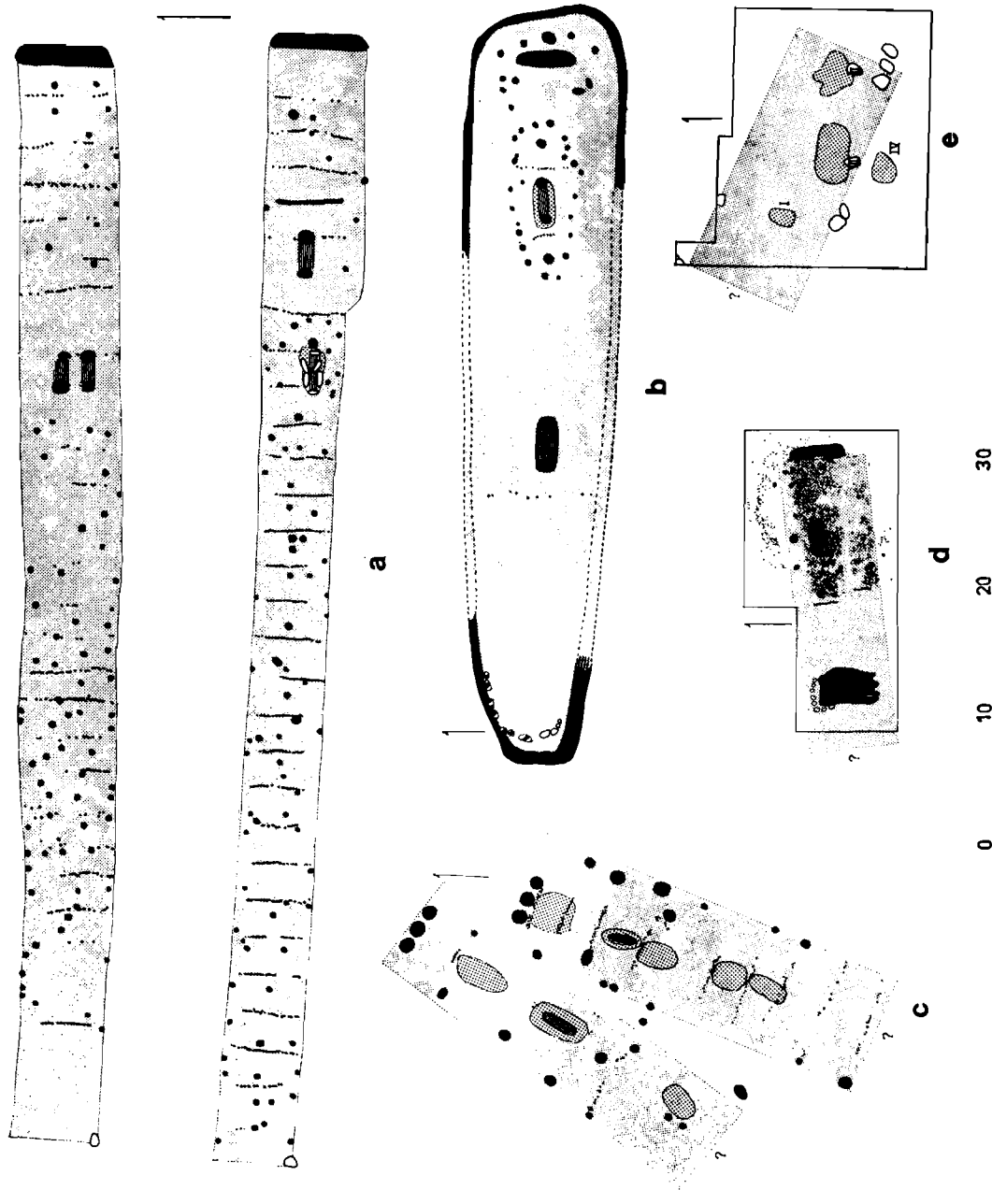

Fig. 5
Long barrows: (a) Barkaer, (b) Bygholm Nørremark, (c) Østergård, (d) Rustrup, (e) Tolstrup.

Rustrup there may also have been a larger house containing a grave, covered after firing with a slightly trapezoidal layer of stones. At Lindebjerg (no. 29), it is uncertain whether the trapezoidal stone cover had the same function as that found at Rustrup.

In two further cases the existence of houses has been suggested. At both Barkaer (no. 12) and Østergård (no. 10) the excavators state that huge mortuary houses covered all the structures. Transverse rows of poles, that were especially numerous at these sites, are regarded as room dividers while pits unevenly spread throughout the structures are regarded as foundations for roof-posts.

Without totally rejecting the possibility of large mortuary houses, I would suggest that we may be dealing with sequentially constructed long barrows. The 'aeolian' deposits, up to 0·5 m thickness in depth, found in the Barkaer structures, throughout which could be traced the sectionwalls, would then prove to have been barrow fill, while the changing colour from bay to bay would simply be the results of sequential infilling. Transverse rows of poles are also found at two other sites where they seem to be connected functionally with barrows. At Bygholm Nørremark (no. 21) there is some doubt about the rows found at either end of the Konens Høj type grave. Superficially they look as if they were room dividers in the house surrounding the grave, but stratigraphical evidence seems to suggest that they were erected only after the house had been removed, and then possibly in connection with the barrow. Another row found immediately west of the coffin-grave was shown by very clear evidence in the profiles to have a function as section divider in the barrow. At Rustrup (no. 15) the row of poles clearly marks the end of the easternmost grave.

FUNCTIONAL ASPECTS

'What is the dolmen? The dolmen is the visible result of incoming religious ideas, among which a prominent part has been the worship of the dead; not only care and protection of the dead, but actual worship' (Brøndsted 1957, 190, translated). With these words Johannes Brøndsted clearly expressed the generally held opinion that the coming of the megalithic graves meant a decisive change in the religious life of the early farmers. This assumed new mortuary practice was contrasted to what was thought to precede it: the use of simple inhumation to dispose of the deceased.

These ideas of a marked difference between the megalithic graves and the earth graves can no longer be maintained. The new excavation results show clearly that there is nothing simple about the earth graves. Moreover there is ample evidence for a direct continuation in form and function from the earth graves to the megalithic graves. The following points can be made:

(1) There is no sudden and total shift from earth graves to megalithic graves. The early type dolmens occur around the middle of the early Neolithic on Zealand and from there they gradually spread to the rest of the country, evolving into different types (Aner 1963). Newer excavations have, however, shown that the bulk of the later types are built in the middle Neolithic together with the passage graves. This viewed together with the clear concentration in Jutland of the structures discussed here (fig. 1), or indeed of all known earth graves, tends to suggest that although dolmens dated to the early Neolithic are known in Jutland it was only with the beginning of the middle Neolithic that they gained primacy in that area. Furthermore the earth graves do not disappear with the coming of the megalithic graves. They are continuously built in the middle Neolithic even on Zealand (Becker 1960; Hansen 1974).

(2) The mortuary houses of the middle Neolithic may be viewed as a development from graves of the Troelstrup type, especially if they are compared with such graves as the one from Rustrup (no. 15) of Lindebjerg variant and the Skibshøj grave (no. 9).

(3) Both earth graves and megalithic graves are built sequentially into the same barrows (no. 2, 4, 9, 20, 21, 29), and as suggested from Troelstrup (no. 4), the megalithic graves are not necessarily the latest.

(4) When the timber superstructures of the earth graves are taken into account it is hard to see any significant difference in either form or function from the megalithic graves. Both were chamber graves, and to both access was possible, although it was of a less permanent kind in the earth graves. The frequent use of large stones instead of timber in the earth graves, and in some cases the use of wood in the dolmens (Kjaerum 1971), emphasize this similarity.

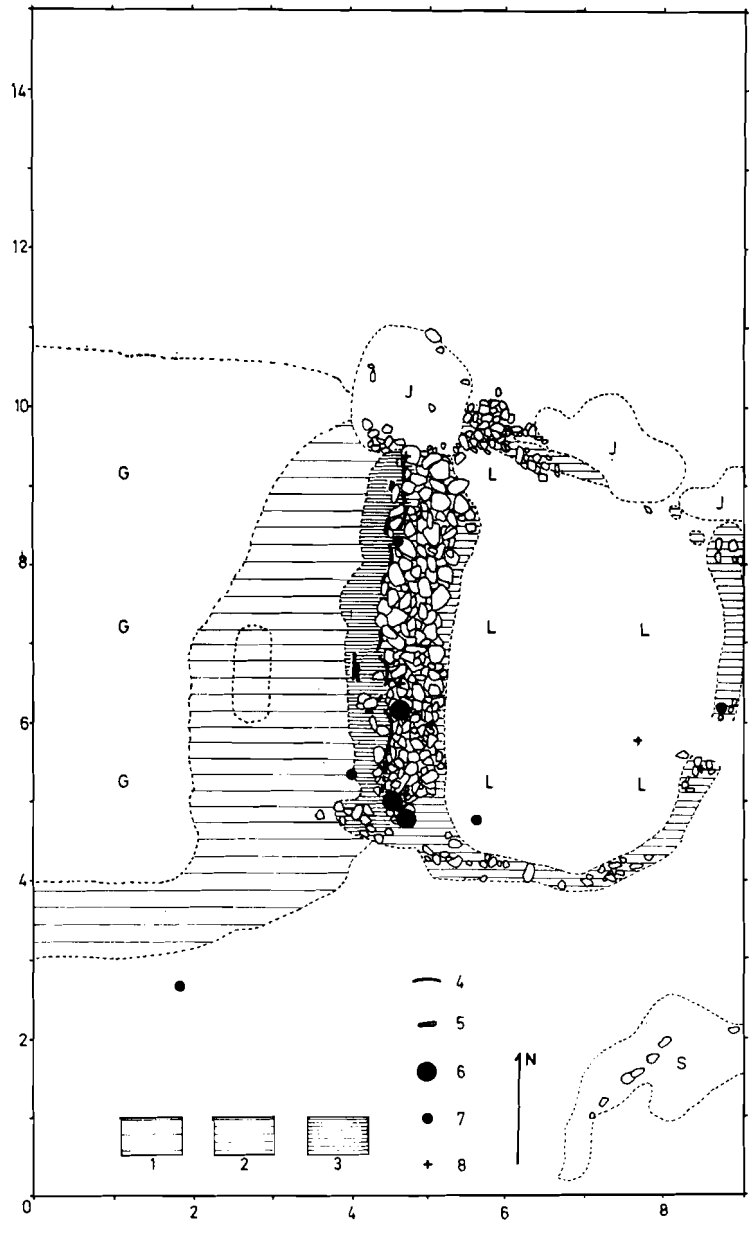

Fig. 6

The facade of the Rude barrow. (1) buff sand, (2) dark brown sand, (3) charcoal filled black sand, (4) strips of charcoal from trunks, (5) charred branches, (6) pottery vessels, (7) pottery sherds, (8) tools of flint, (J) Iron Age pits, (G) buried surface under barrow, (L) light buff sand, (S) Stone Age pit.

(5) In most megalithic graves there is evidence of fire. These 'initiation' or 'purification' fires, as they have been called, may be compared with the firing of the earth graves. The only difference is that they did not have the destructive effect on the megalithic graves which they had on the earth graves.

(6) The offerings of larger quantities of pottery along the facades of the megalithic graves in the early middle Neolithic can be compared to the pottery placed at the timber facades in the long barrows. Further there is evidence to suggest that in both cases the pottery could be placed on the facade (no. 19 and Kjaerum 1970). This feature together with the use of fire, is important because it refers not only to some architectural similarity, but also directly to the rituals performed.

There are thus parallels in the use of earth graves and megalithic graves. Before stating this as a fact one difficulty should however be considered. The megalithic graves—or at least those with an entrance—are normally regarded as communal graves. This is definitely not the case with the earth graves in the sense of continuous use over an extended period although they may contain more than one body. Is there a real difference in this? I do not think so. I would suggest that the megalithic graves built in the early Neolithic and early middle Neolithic, including the passage graves, were in fact never intended as communal graves. Due to the more permanent access facilities they became communal graves later on and had beyond doubt this function in the last period of the middle neolithic TRB culture.

The evidence indicating that the megalithic graves were not built as communal graves comes from Jutland, where several recent excavations show very homogeneous pottery offerings in front of the facades. These offerings in several cases evidently were laid down on one or two occasions, and immediately afterwards deliberately covered with stones. As well as these offerings we have a few instances in undisturbed chamber deposits of remains from one or two sets of burials dating to the first half of the middle Neolithic. Naesborg, in northern Jutland, is an example of this where the chamber contained two sets of burials, one from the middle Neolithic Ib and one from middle Neolithic III (Ferslev style). The offerings in front of the passage grave showed exactly the same division (publication in preparation by the author).

We may then conclude that the use of earth graves prior to the megalithic graves does not indicate that mortuary practices were originally simple in the early Neolithic, and became more complex with the coming of the megalithic graves. On the contrary, mortuary practices were elaborate in nature from the outset of the neolithic, and were undoubtedly associated with ancestor worship. The megalithic graves involved no functional change, only an architectural one, which may or may not have its background in foreign influences.

It is one thing to state that the mortuary practice was elaborate, another to say what really went on. I shall not try to venture into this, but only draw attention to one special feature—that of the cultural deposits often associated with the structures. In 10 out of the 29 cases presented here, such deposits are present. It has naturally been suggested that these deposits came from former habitation sites, on which the burial structures were placed. This may be wholly or partly true in some cases, but at four localities (no. 2, 10, 15, 20) there is evidence that the cultural material was laid down in connection with the use of the structures. This would suggest that long-term stays and/or great funeral feasts had occurred on the sites.

THE NORTH EUROPEAN PERSPECTIVE

The hesitant attitude towards Stuart Piggott's suggestion of a common north European tradition of 'unchambered' earthen long barrows must today subside on the basis of the evidence. The structures presented here have so many features in common, particularly with British structures, that this similarity cannot be accidental. I shall not go into detailed comparisons, as the material is well

known, but only briefly point out the similarities. Where no literature is given Ashbee (1970) is implied for Britain and Jazdzewski (1973) for Poland and North Germany.

The general orientation of long barrows in Northern Europe is E-W. The form differs however in different areas. In Poland they are triangular, in Britain generally trapezoidal and in Denmark and northern Germany rectangular. In the last two areas trapezoidal barrows are now known, however, comparable with those in Britain. In all cases the broader end is to the east.

Quarry ditches along the barrows are a normal feature in Britain and Poland, but, until the find was made from Hejring (no. 5), were unknown in Denmark and northern Germany. We might expect them to have been overlooked in many cases, but the fact that the Danish barrows are usually low and relatively insignificant might also explain their absence. Indeed it may normally be as at Rude, where shallow excavations to the side of the barrow (only 10–40 cm) are present.

The most conspicuous feature in comparisons between Britain and Denmark are the timber facades in the eastern end of the barrow; although the British, in contrast to the Danish, are normally concave, their presence in both areas cannot be incidental. This is particularly true when the forecourt arrangements at Nutbane are compared with those at Rude (no. 19) and Bygholm Nørremark (no. 21), and when the deliberate firing of the facades found at, for instance, East Heslerton (Vatcher 1965) and Nutbane (Morgan 1959) is taken into consideration. The palisade enclosures encountered in five cases are also clearly parallelled in the British material, mainly in the trapezoidal form found at Bygholm Nørremark (no. 21), Teglvaerksgården (no. 22) and Harreby (no. 24). Neither facades nor palisade enclosures are however so far known from Northern Germany or Poland.

The transverse rows of poles, probably hurdle fences sectioning the barrows, must be regarded as a very special feature. It can therefore hardly be coincidental that they occur both in Danish (no. 10, 12, 15 and 21) and British long barrows, as at Beckhampton Road, South Street (Smith and Evans 1968, and see this volume) and Giants Hill (Phillips 1936).

The graves in the long barrows are fairly variable in form. In the preceding discussion I have distinguished between two main types, both of which are mortuary houses built mainly of timber. It is however clear that there are other types, including regular coffins. If we compare the two main types with the British mortuary houses, we find immediate parallels to both. The agreement between the Konens Høj type and the gabled mortuary houses of the Wayland's Smithy type has long been clear. The Troelstrup type also has some parallels. The Skibshøj grave (no. 9), in particular shows strong similarities with the mortuary house in the Dalladies long barrow, both in its structure and the way it is placed in the barrow (Piggott 1974). A further similarity is the frequent burning of the mortuary houses.

The British mortuary houses are normally placed directly behind the facade, often with access through an opening in the later. The Danish earth graves are only in some cases placed at this spot, and access has apparently always been from the side of the barrow. At Rustrup (no. 15), Bygholm Nørremark (no. 21) and Lindebjerg (no. 29), where graves did occur immediately west of the facade, there are however some notable similarities with British structures. The trapezoidal layer of stones at Rustrup covering the fired mortuary building and the trapezoidal mortuary house at Bygholm Nørremark with four axial posts find close parallels in the mortuary house at Fussels Lodge.

One notable difference between Denmark and Britain is that there is normally only one mortuary house in the British barrows, and more than one in the Danish. A further point, and probably related to this difference, is that there may be many skeletons, mostly disarticulated, in the British mortuary houses, while those in the Danish graves are apparently few in number and fully articulated.

Equally good similarities in comparisons with the North German and Polish material cannot be found. There is some evidence of burned structures in barrows in Northern Germany, but their form

is uncertain. In the Kujavian barrows in Poland there are some instances of burnt mortuary houses in the east end—notably Gaj 1 (Chmielewski 1952)—but there is no general resemblance with the Danish structures, except perhaps in the case of grave II at Tolstrup (no. 2). Burials in the Polish barrows normally takes the form of what appear to be simple inhumation graves, in and around the barrows.

Finally it should be noted that cultural debris is found associated with both British and Polish barrows, and may be compared with the cultural material associated with Danish barrows.

* * *

The existence of a common north European tradition of 'unchambered' earthen long barrows can no longer be doubted. It remains an open question however as to how we are to interpret this common tradition. One way to look at the problem is to assume that the long barrows—and the causewayed camps for that matter—represent such specialized types of monuments, with such specialized attributes, that the people who built them must have been ethnically or socially related. This kind of thinking would quickly lead to assumptions about the common origin of Neolithic settlers—one of the favourite themes of European archaeology. Personally, I doubt that these monuments indicate anything of the kind. As I stated in the introduction, it is hard to believe that there was an invasion of new peoples into Denmark, and furthermore I am not even certain that it would mean any difference in our view of the common tradition if such an invasion had taken place. What seems to be important is the way these rather special monuments were used. It is in the context of their function that their widespread distribution must be interpreted.

The 'unchambered' earthen long barrows emerged in an area, and at a time, where new cultural formations were created, replacing mostly Mesolithic societies. These new cultures were based on a Neolithic economy, and it would be unthinkable—without trying to make any suggestions about what caused what—that this new economy could be run under the social and religious structure present in the existing Mesolithic societies. During the phase of change, the people would then be very open to solutions to their structural problems, and common solutions could therefore appear quickly over larger regions through the spread of ideas. The similarities that we find in the earthen long barrows of Northern Europe are thus the result of structurally-similar solutions to religious, ritual and sociopolitical problems. What we have is a technocomplex, in Clarke's terminology (1968), and the earthen long barrows are just as much a diagnostic element as, for instance, the castles are of the mediaeval feudal technocomplex.

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