

Emergence of the Single Grave Culture

- a Regional Perspective

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In the 8th volume of this Journal K. Kristiansen re-initiated the debate on the issue of migration in the Middle Neolithic. The ensuing discussions have re-focused attention on the development of Middle Neolithic societies, but they have not however led to a shift of position in favour of explanations viewing migration as an important or triggering factor.

In the following discussion a local example from East Jutland is used to illustrate the complexity of the evidence at the time of emergence of the Single Grave Culture (SGC). In East Jutland three of the traditionally defined archaeological culture groups are represented and they are supplemented by a number of finds, that can be seen as a parallel to the Scanian Ståvie group. The basic archaeological evidence from the research area lacks much in detail but can contribute by showing some distinct local developments which I believe to be typical of the transition from the Middle Neolithic A to B (MNA, MNB) as defined by P.O. Nielsen (1979).

As C. Damm and L. Larsson have pointed out in their articles in the 10th volume of this Journal, the common traits ascribed to the Single Grave and Corded Ware

Cultures across parts of Europe could be seen as expressions of complex social and economic changes in the Neolithic societies rather than the result of migrations.

Whether or not the distinct Single Grave Culture groups in Central and West Jutland represent a migrating population cannot be judged on the basis of the evidence presented here. The problems involved in answering this question on the basis of Danish finds have recently been excellently dealt with by C.J. Becker (1992).

Chronology

In the late seventies and the early eighties the ¹⁴C chronology seemed to confirm the idea of a succession from Funnel Beaker Culture (TRB) to SGC with Pitted Ware Culture (PWC) placed parallel to the early SGC.

If we calculate averages from uncalibrated dates there is a marked difference between the late TRB on the one side and the PWC, SGC on the other (table 1). Only dates from late TRB phase V in Denmark, excluding Bornholm, and from the Under Grave Period of the SGC are used. The averages reached here more or less conform to the ones used by L. Larsson (1993, 205). The dated material and its context is however very different in the three groups. The TRB and PWC dates are all from settlements and predominantly from short-lived material. In contrast the SGC dates are all from oak charcoal from graves. The oak might have had a considerable age at the time of deposition. The geographical context also varies considerably, the TRB dat-

	Avg. BP	Material					Context	
		Charcoal	Wood	Seashell	Bone	Other	Grave	Settlement
Funnel Beaker Culture (TRB)	4227,5	5	2	2	3	1	-	12
Pitted Ware Culture (PWC)	4114,3	-	-	14	7	-	-	21
Early Single Grave Culture (SGC)	4105,7	15	-	-	-	-	15	-

Table 1. Averages of ¹⁴C-dates from the three Danish culture groups and a schematic account for dated material and context. Compiled mainly from datings published in Malmros & Tauber 1977, Tauber 1986, Davidsen 1975, Rasmussen 1986 and in *Arkæologiske Udgravninger i Danmark* 1986 onwards.

ings covering most of the country, while the dates of the early SGC are limited to Central and West Jutland and the PWC datings all come from the Kainsbakke settlement and its nearest surroundings (L.W. Rasmussen 1986 and 1991).

To evaluate further the possibilities of using the ^{14}C -dates we must also address the issue of calibration. If we apply the calibration curves of Pearson et al. (1986a, 1986b) aided by one of the PC-based graphics programmes it is quite clear, that the ^{14}C -dates from this period can be stretched considerably to serve what ever idea of cultural development one may favour (e.g. T. Madsen 1990). The subtle chronological problems involved in the interpretation of short term local change cannot be solved using radiocarbon dates alone.

Stratigraphical evidence relating to the transition from MNA to MNB is restricted to very few sites. In Central Jutland early SGC burials follow late TRB-settlements (H.Rostholm 1977) and in East Jutland the coastal settlement Kalvø offers the only published stratigraphy where middle SGC material is found on top of late TRB finds (S.H.Andersen 1983).

With the exception of Bornholm, there are still no ^{14}C -dates of SGC material and no stratigraphical evidence from the Danish islands, which leaves us relying on typological parallels in the surrounding areas as the major source of information.

The chronological framework of the following presentation is a combination of the traditional cultural entities and a phase comprised mainly of artefacts regarded as later than the beginning of the SGC. The late TRB and the PWC respectively are defined on the basis of settlement finds while the early SGC is defined on the basis of grave finds. The non-SGC early MNB-phase is mainly linked to P.O. Nielsens (1979) definition of thick-butted flint axes of type B (B-axes) and a number of characteristics associated with this group of thick-butted flint axes as proposed by C. Damm (1989; 1991; 1993). The dating of the thick-butted B-axes to MNB is accepted here, but it still remains unclear whether or not the chronological implications of this typology are valid for the whole of Denmark. The regional variation of thick-butted A-axes from late TRB sites with ceramics has already been pointed out by K. Davidsen (1978, 126ff). C.Damms detection of the large number of thick-butted axes with so called B-axis attributes in stonepacking graves might also be part of a regional tradition.

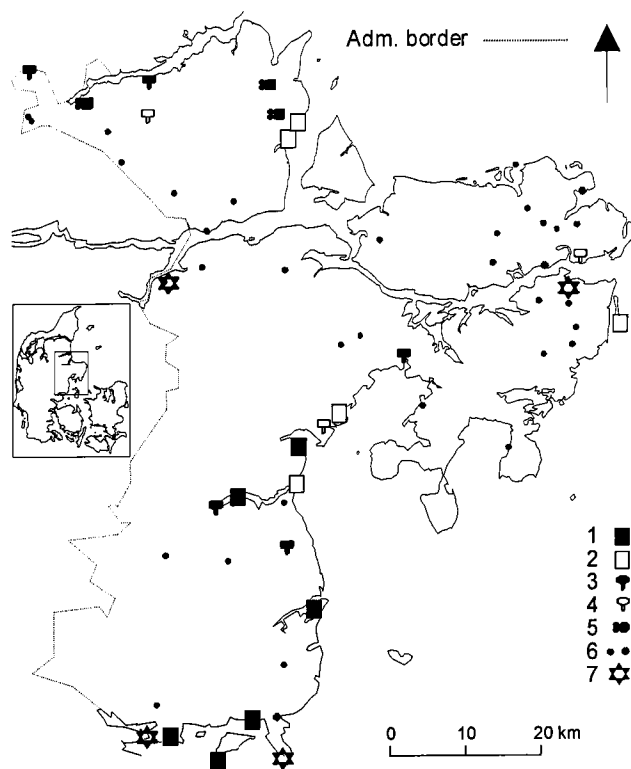


Fig. 1. Late TRB. 1: settlement with late TRB ceramics; 2: settlement with heavy thick-butted A-type axe; 3: megalith with late TRB ceramics; 4: megalithic grave with heavy thick-butted A-type axe; 5: stone packing grave with heavy thick-butted A-type axe; 6: single find of respectively one and two heavy thick-butted A-type axes; 7: Single find of battle axes of Ebbesen's type C2. Inset: map illustrating the research area.

The SGC is divided in two parts using P.V. Glob's (1945) battle axe typology so that the early part is represented by battle axe types A – F and the later part is represented by types G – L.

The case of East Jutland

The following examples from my work on material from East Jutland (H.H. Sørensen 1992) are chosen to illustrate the complexity of material patterning at the transition from MNA to B. The distribution maps are based on finds registered at local museums and at the National Museum up until June 1991 (1).

The coastline shown on the maps approximates the Neolithic coastline. The approximation is based mainly on older maps by A. Jessen (1920) and a new survey by K.S. Petersen (1985). The surveys are supplemented by

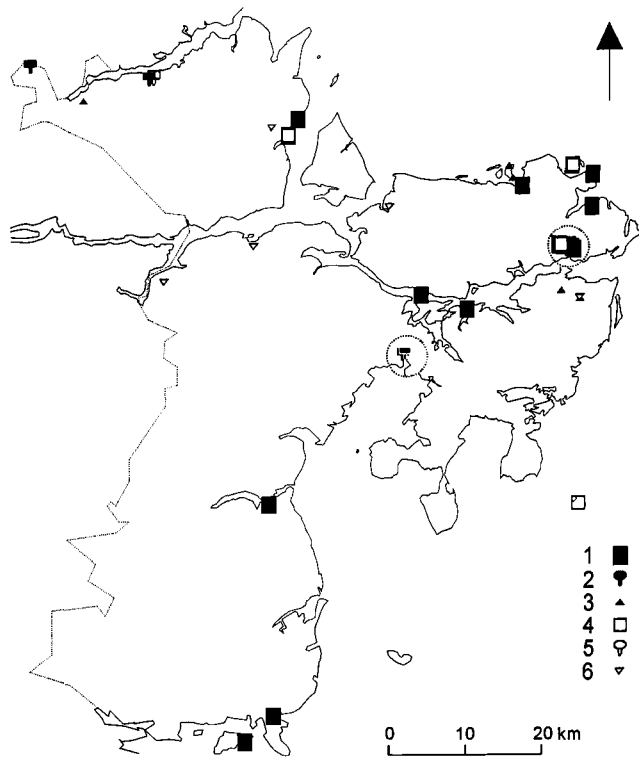


Fig. 2. Pitted Ware Culture. 1: settlement with A-arrow; 2: megalith with A-arrow; 3: single find of A-arrow; 4: settlement with B-arrow; 5: megalithic grave with B-arrow; 6: single find of B-arrow. Circles around settlements at Kainsbakke and megalithic grave at Åkærslund, both with PWC-ceramics.

a number of smaller investigations and indications from archaeological records. The whole research area could be characterized as coastal in the Middle Neolithic as no part of it was more than 17 kilometres away from the coast. However, there are very clear differences between the development at the coast and “inland” in the westernmost part of the research area.

The topography and soils vary within the research area. The southern and central part generally comprises hilly moraine with heavy clay soils. The northernmost 10 to 15 kilometres is hilly moraine consisting mainly of sand and gravel. In the eastern area, Djursland, the topography varies from a hilly mixed moraine in the southern part, to a plain of sand and gravel in the northern part. The most significant consequence of these differences is seen in the post-depositional effect of later land use with earlier and heavier destruction of features in the areas with heavy soils, mainly in the central and southern parts (E. Baudou 1985).

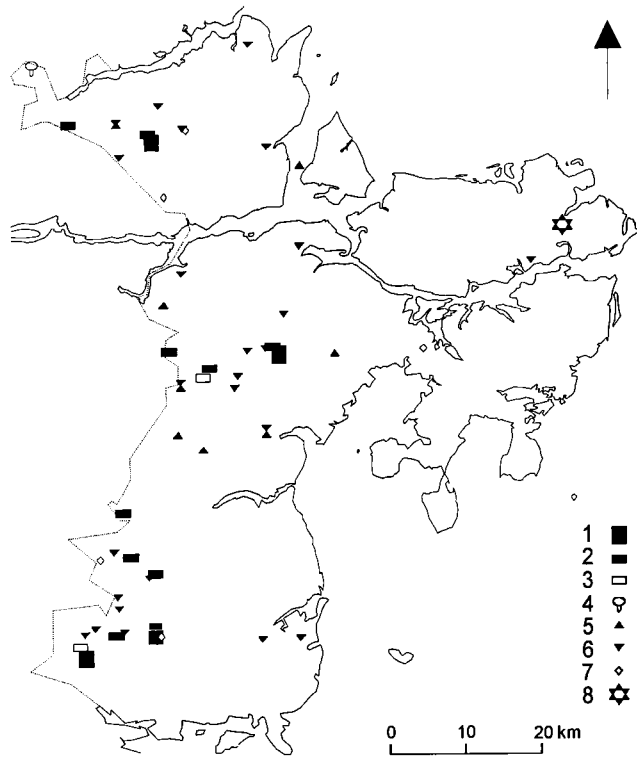


Fig. 3. Early Single Grave Culture. 1: settlement with corded beaker; 2: grave with early battleaxe type A-F; 3: grave with early corded beaker; 4: megalithic grave with early corded beaker; 5: single find of battle axes type A-C; 6: Single find of battle axes type D-F; 7: Single find of early corded beaker; 8: Bog find of amphora.

In the presentation of the different phases of the development I will briefly present the archaeological and typological definitions and then comment on the distribution and context of each phase as they are shown on the maps. As several of these phases cannot be seen as absolute, closed entities the following will include a discussion of the assumptions applied to arrive at the chosen pictures of each phase and a general interpretation of the development.

The late TRB can be identified mainly by ceramics as defined by C.J. Becker (1955) and K. Davidsen (1978). Also thick-butted A-axes (P.O. Nielsen 1979) and battle-axes of the late TRB type C2 (K.Ebbesen 1975, 182ff) are used as diagnostic artefacts even if they are not restricted to contexts with late TRB-ceramics (L. Kaelas 1957, 118ff).

The settlements and burials that can be ascribed to the late TRB by ceramics are well represented in the southern coastal areas, but are not found on Djursland,

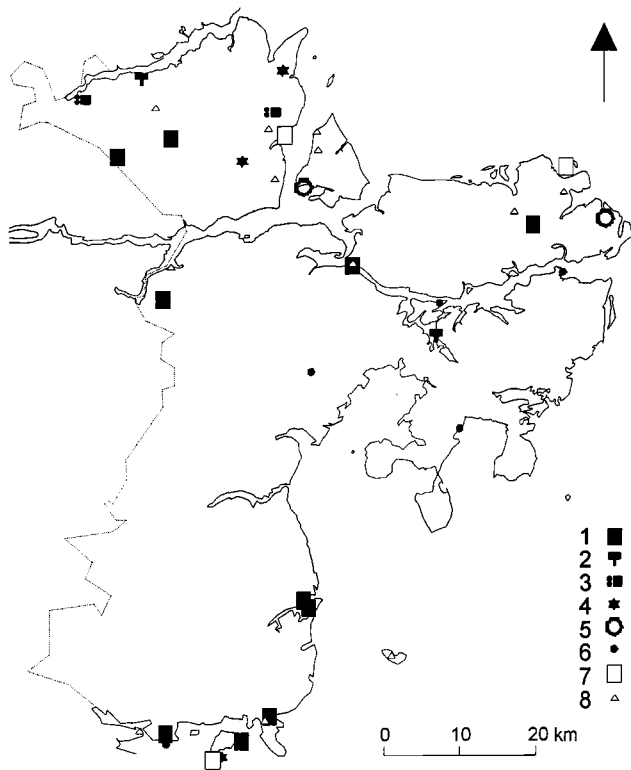


Fig. 4. Hypothetical early MNB. 1: settlement with B-axe; 2: megalithic grave with B-axe; 3: stone packing grave with B-axe; 4: hoard with B-axe; 5: single find of hollow-ground axe; 6: single find of flint gouges with B-axe affinities; 7: settlement with C-arrow; 8: single find of C-arrow.

where only a few sherds of typical ceramics have been found in settlements and graves (fig. 1). The settlements are generally very large and located near the coast (T. Madsen 1982) or near larger wetland areas. In the southern part of the area the burials are placed in megalithic graves, while both megaliths and stone packing graves are used in the northern part. The distribution of single finds of heavy thick-butted A-axes shows a concentration along the coast, but indicates some use of inland areas. A few battle-axes of the late TRB type C2 are found as single finds in shallow water along the coast, but not in graves. Amber beads shaped as double edged battle axes are however numerous in some of the megaliths, but are not plotted here.

If we restrict the definition of the late TRB to sites or areas with finds of the diagnostic ceramics, the many thick-butted A-axes found on Djursland can not be ascribed to this culture only as there are only few finds of late TRB ceramics in that area (P. Eriksen 1985, 58) and

as the thick-butted A-axes are also typical of the finds from the large PWC-site at Kainsbakke (L.W.Rasmussen 1991).

The PWC in Denmark is identified by the typical ceramics and the arrow-heads of type A (C.J. Becker 1951), referred to here as A-arrows. These two components are found together in the sealed context at Kainsbakke. The B-type arrow-heads are slightly more worked than the A-type and are here included with the PWC although they have not been found in sealed context with PWC-ceramics. The distribution of these types is shown on fig. 2.

PWC-ceramics are known mainly from the Kainsbakke settlement and from a few excavated settlements around it. They are supplemented by one vessel from a megalithic grave in the south-westernmost part of Djursland (K. Ebbesen 1978, figure 31:1). The A-arrows are distributed at settlements, in megaliths and as single finds along the coast, also outside the area where PWC-ceramics are found. In the research area settlements with PWC-artefacts are generally large and located at or very near the coast just like the late TRB settlements further south.

The early SGC-graves are all primary or secondary graves in mounds located inland (fig. 3) mainly near one of the major concentrations of SGC finds in the eastern part of Central Jutland and also in the north-western part of the research area (P.V. Glob 1945, fig. 115). The single finds of early SGC battle-axes show a wider distribution. A few of these are deposited in the sea exactly as battle axes of the late TRB. This depositional practice of early SGC battle axes is also known from the Danish islands (A.H. Andersen 1986). An amphora ascribed to the early part of SGC comes from the Veggerslev bog find in North East Djursland (C.J. Becker 1948, fig. 14), where typical graves of the early SGC are not known. Settlement material from the early SGC is found in and under some of the burial mounds inland and at one small site in the south-westernmost part of the research area, also an inland site. The settlements of the SGC are small or maybe spread over larger areas (S. Hvass 1978) and sherds can easily be mistaken as belonging to the Iron Age. As a consequence we still do not have any detailed knowledge of the settlement pattern, only an impression of smaller settlements spread out in the landscape.

Assuming that the PWC element can fill the late TRB and parts of early MNB on Djursland there is still a *vac-*

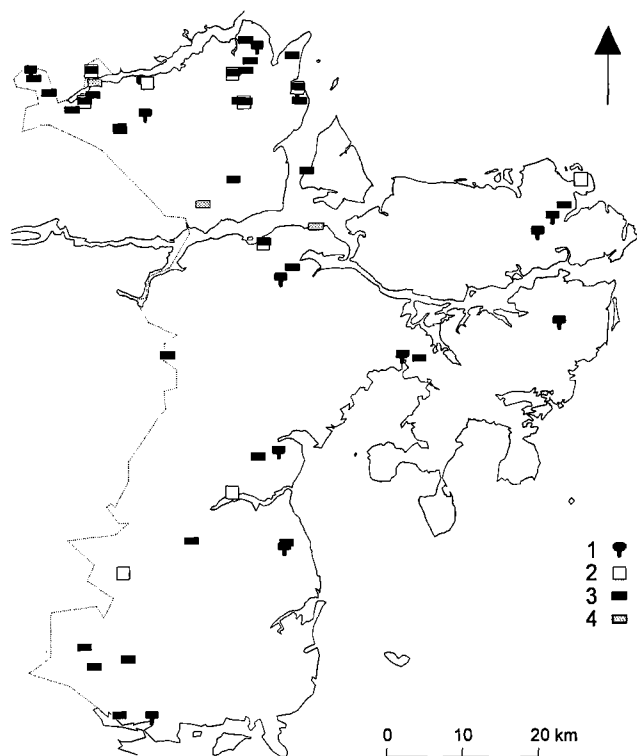


Fig. 5. Grave finds from late MNB. 1: megalithic grave; 2: grave cist; 3: single graves and small stone cists; 4: undetermined grave type.

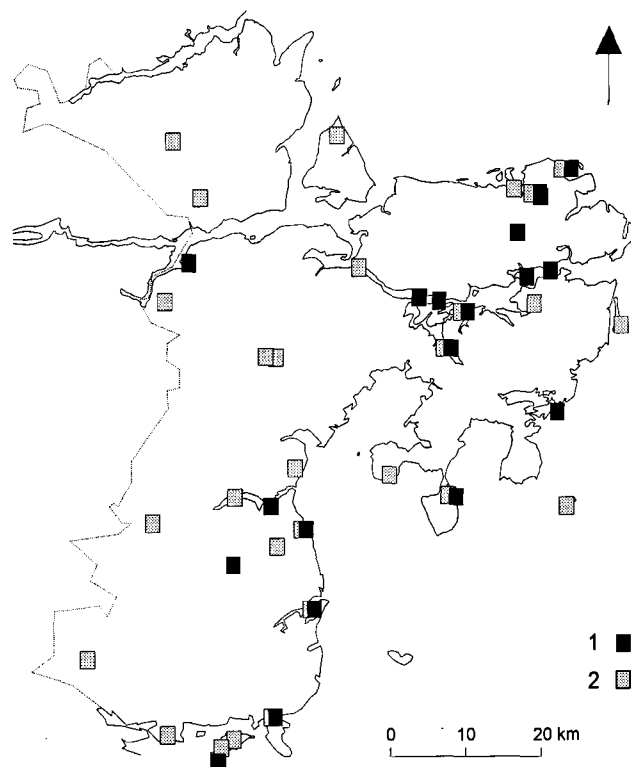


Fig. 6. Late and undateable SGC settlements. 1: late SGC with finds of D-arrows, ceramics and battle axes; 2: undateable SGC with ceramics and thick butted axes of SGC-type.

uum in the early MNB especially in the southern coastal areas. Here we could look for some mix of TRB, PWC and possibly even use of SGC symbols like the early SGC battle axes deposited in the sea. In figure 4 some possible finds have been mapped together to give an idea of my constructed phase that might be a parallel to the Scanian Ståvie group (L. Larsson 1986; 1993). No local ceramic tradition can be isolated to represent this phase. Thick-butted axes of type B, and axes showing similar technical details, are here considered B-axes (P.O. Nielsen 1979; C. Damm 1989; 1993) and also arrow-heads of type C are placed in this phase as argued by C. Damm (op. cit.). A small group of finely crafted thick-butted adzes with a hollow edge that appears to be secondarily worked on thick-butted axes of type B (C.J. Becker 1974, fig. 18), and so called middle-bladed axes with hollow-ground sides (C.J. Becker 1974, 164ff), can also be associated with the early MNB's non-SGC phase.

The map on figure 5 of this *constructed* assemblage shows a rather varied picture with marked differences

within the research area. In the southern part the settlements with heavy thick-butted B-axes are located at the coast supplemented by a single hoard. In the northern part of the area, B-axes are found in both settlements and graves and they are not bound to the coast. The two rare and well worked hollow-edged axe types were found as single finds in water. With the exception of one, which was found in a lake, all the axes were found in the sea. This last group of finds must have had a function linked to a depositional practice that corresponds to the use of TRB battle axes and the few SGC battle axes found at the coast.

In the later part of the MNB the picture is quite different. The SGC grave finds are now much more varied. They are also found at the coast where most of the finds are from secondary depositions in or at megalithic graves, supplemented by a few other grave types placed in newly built barrows. Inland, the graves are placed in older SGC mounds. New grave cists with a collective function are constructed as primary graves in the north-

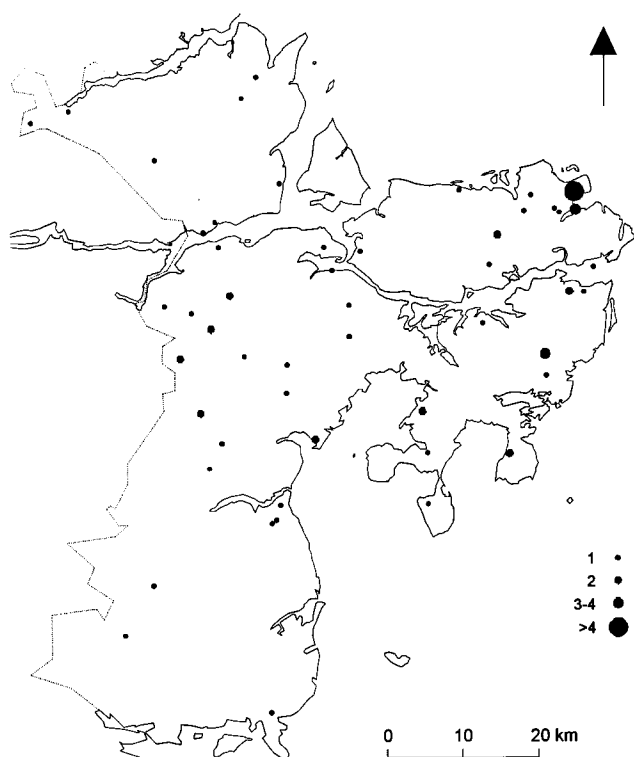


Fig. 7. Single finds of heavy thick butted B-axes.

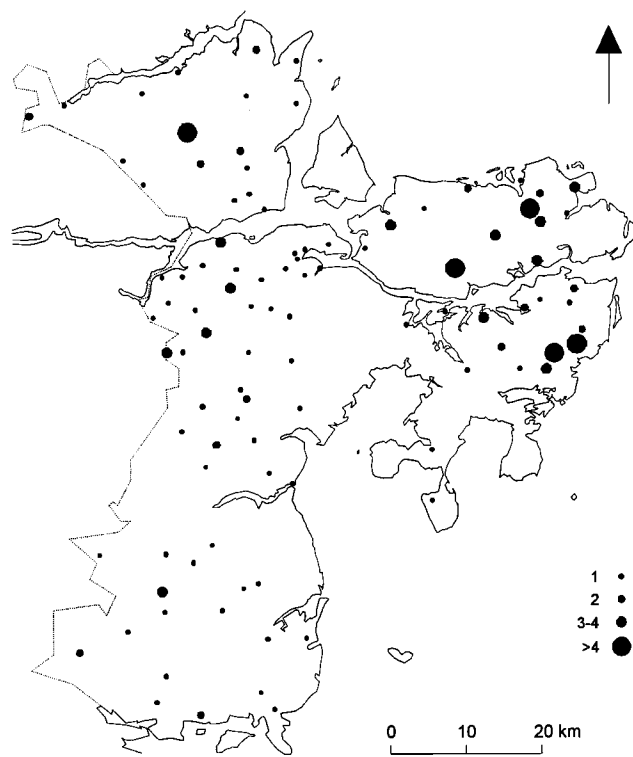


Fig. 8. Single finds of heavy thick butted flint axes of SGC-type.

ern part of the research area. On Djursland, no new mounds were erected until the early part of the Late Neolithic.

With two exceptions the well dated late SGC settlements are located at the coast as shown on figure 6. They are dated by ceramics, D-arrowheads, tongued wedges (P.V. Glob 1945, 122ff) and by a few later battle axes. To supplement this picture the settlements with finds of SGC-type thick-butted axes and SGC ceramics, which have no precise dating within the SGC, are mapped together.

Because much of the research has been concentrated in the coastal areas and at restricted areas around barrows inland and moreover has been very intense, for example on Djursland, the picture presented above is somewhat biased.

To get an impression of land use in the areas with few excavations the distribution of single found thick-butted axes can be applied. The maps indicate the number of axes found. Most important, however, is the pattern of their distribution. The very different formation proc-

esses affecting the archaeological records have resulted in an over-representation of single finds on Djursland and in the central part of the research area. However, the many flint axes from Djursland may also be seen as a consequence of the easily accessible flint resources in that area.

The single found A-axes shown on figure 1 are not very numerous and are not found at all in inland areas in the southern part of the research area. The single finds of thick-butted B-axes have a wider distribution in the central part of the area with a fair number of finds inland and many on Djursland, see figure 7. With the SGC thick-butted axe-type mapped in figure 8, a greater part of the inland areas shows many finds. Together with the East Danish SGC adze-type mapped in figure 9 these axes represent the SGC axe tradition, which also covers part of the Late Neolithic. Even if the use of single finds is problematic, these examples do support the impression of a general expansion of land use to cover both coastal and inland areas more or less equally in the later part of the Middle Neolithic.

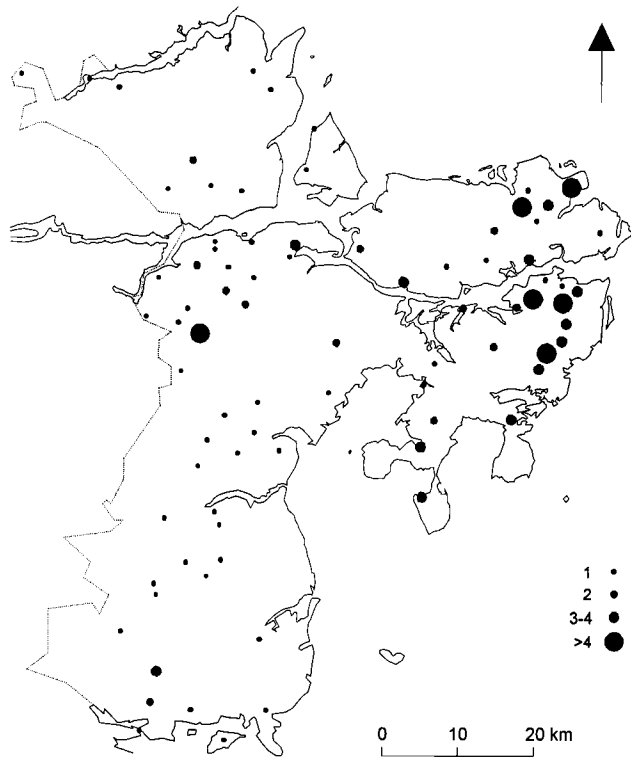


Fig. 9. Single finds of heavy thick butted adxes with hollow edge of late SGC-type.

Conclusion

In my opinion the distributions presented here do not represent clearly defined cultural entities, as we do not have a complete framework to define such entities. Sealed contexts are scarce and never cover a wider range of social aspects within each culture group. As already stated our traditionally defined culture groups are either based mainly on settlements or on graves. Moreover the traditionally defined entities do not always match the finds, as the artefacts considered diagnostic are frequently found in other contexts. I believe that this more diffuse picture is not only a result of purely formal problems but also an effect of a very active use of material culture (C. Damm 1993; L. Larsson 1993, 206).

In many aspects the development in East Jutland can be compared with the contemporaneous Scanian situation as described by L. Larsson (op. cit.). In Scania, TRB ceramic traditions are mixed with PWC flint technology in the coastal area while an opposing tradition, the Battle Axe Culture, is adopted first inland before being

adopted or accepted later in the coastal area. In East Jutland as in Scania this general development shows some remarkable local differences.

An adoption of the West Swedish PWC tradition in ceramics and in flint technology takes place on Djursland, while only the flint technology is adopted along the coast further south. In the inland areas of Jutland the SGC evolves with a clear emphasis on the individual in graves that might have had its root in an alternative or opposing tradition within the TRB societies as proposed by C. Damm (1991). One of the closest possible TRB-parallels to the SGC grave tradition has been published recently (K. Christensen 1990). Here we are clearly facing single burials in a round mound but in an indisputable Middle Neolithic TRB context on the island of Zealand.

In the later part of MNB the marked differences between SGC- and the TRB-traditions have changed towards a somewhat more homogenous material culture, but with a varied burial tradition that does show some distinct local variations.

As this short presentation has shown, the development in East Jutland cannot easily be described in the framework of the traditionally defined archaeological culture groups. In our interpretations we must accept interaction between the different material traditions, that is the social groups we superimpose on the archaeologically defined material groupings. It has already been pointed out that the finer chronological problems involved cannot yet be solved using Danish evidence. It may last a long time before the chronology is sufficiently refined to shed light on the local developments. In my opinion, they are the key to a better understanding of the cultural development at the transition from MNA to MNB in Northern Europe.

NOTE

The area covers the old counties of Randers and Århus and the two districts Hjelmslev and Voer of the old county of Skanderborg (see K. Kristiansen (ed.) 1985, Appendix 1-2). No references to the individual finds are given here. I would like to express my gratitude for help and advice received at the museums. The English text of this paper was corrected by David Robinson.

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