

The Construction of Local Groups in Early Neolithic Scandinavia

An Interpretation of Social Boundaries without Local Horizons

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This article discusses the systemic construction of the social division of the Early Neolithic I. The division is seen as inaccurate due to a much too simplified classification of the ornamented material, something that is even more obvious when one tries to apply existing constructions on a broader Scandinavian scale. The article also presents a detailed analysis of the Oxie group and its relationship to other Early Neolithic groups; the previous view held by scholars, that this material is concentrated to eastern Denmark and central Scandinavia, is proven wrong in the article.

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INTRODUCTION

During the 1980s some changes were made in Carl Johan Becker's Early Neolithic (EN) ceramic division from 1947. It was not really a new chronological division of the ceramic material, but merely a reorganisation of the existing one. Already in 1973 (Skaarup) Becker's division was shown by some ^{14}C dates to be inaccurate. Material from Becker's latest C-phase was now radio-carbon dated to the very beginning of the Early Neolithic. The typological sequence had once again – as always seems to be the case with typologies – been proven to be incorrect. In contrast to the new division of the Early Neolithic, Becker's work had mainly been based on morphological differences among vessels found in Danish bogs. Ornamentation differences were mainly seen as a secondary factor in defining different styles in the later C-phase, as well as a kind of further evidence for a chronological sequence of the three phases (A, B, C), based on the idea that chronological development is always reflected in increasing ornamental complexity.

In the new division only the rim ornamentation techniques of the vessels were analysed. All kinds of pattern formations as well as combinations of different parts of the vessel were disregarded. This, however, resulted in the fact that a lot of material from Becker's A-phase (nowadays the Oxie group) could not be used, since much of that pottery is without ornamentation. Therefore Becker's morphological definitions for the old A-phase – i.e. short, slightly outward curved neck, with a soft transition from the body to the neck and with a flat bottom – were still accepted as definitions (e.g. Nielsen 1985). This more or less meant that you were not supposed to find "long neck fragments" in Oxie material. The morphological factors are therefore mostly used when dealing with bog-find material, and not so much when working with the highly fragmented settlement material. The flat bottom is, however, also represented in material previously called C-phase (today the Volling, Svaleklint, Svenstorp, Fuchsberg, Virum and Bellevuegård groups). Therefore

the flat bottom cannot define Oxie material alone.

The new pottery groups in the Scandinavian Early Neolithic probably have some chronological significance, but the twofold chronology of the Early Neolithic (EN-I and EN-II) is not a result of the division into these groups. Instead the chronology rests solely upon radio-carbon dates (as shown in Liversage 1992:102–105). The different ceramic groups are then connected with one of the two phases or with both, and at the same time they represent a geographical division of the archaeological material into different Scandinavian regions.

This reorganising in the 1980s is now the accepted division of the Early Neolithic Scandinavian TRB, and schematically can be arranged as in fig. 1 (Ebbesen & Mahler 1979; Andersen & Madsen 1977; Madsen & Petersen 1984; Larsson 1984).

What I would like to stress in this article is

that the last-mentioned construction of the Early Neolithic includes some misjudgements, doubtful conclusions and incorrect presumptions. The idea is to analyse existing constructions and try to describe what they would look like if they were applied on a broader scale of the TRB extension in Scandinavia, by adding other well-known areas with Early Neolithic TRB material, instead of only discussing the social organisation from a Danish and Scanian point of view. The aim is also to try to deconstruct the existing construction by analysing its own methodology and results. Presenting new empirical analyses is not the aim of this article. I only want to argue for another interpretation of existing constructions.

COMMENTS ON THE EARLY NEOLITHIC RESEARCH OF THE 1980S

There are some critical points that can be raised against this division of the Early Neo-

Denmark				Southern Sweden	
<i>Period</i>	<i>Cal. Year</i>	<i>Jutland</i>	<i>Zeeland</i>	<i>Scania (W)</i>	<i>Scania (S,E)</i>
EN-I.	3900 - 3500 BC.	Oxie Volling	Oxie Svaleklint	Oxie Svenstorp	Oxie Mossby*
EN-II.	3500 - 3300 BC.	Volling Fuchsberg	Virum	Bellevuegården	-----

Becker's chronology 1947-1988				
<i>Period</i>	<i>Jutland</i>	<i>Zeeland</i>	<i>Scania (W)</i>	<i>Scania (E) - Blekinge</i>
A	A-phase	A-phase	-	-
B	B-phase	B-phase	B-phase	B-phase
C	Volling Virum	Svenstorp Virum	Svenstorp Virum	Siretorp* Virum

Fig. 1. A schematic table of the chronological and regional division of the Early Neolithic in south Scandinavia. Becker's division from 1988 (1990) is listed, as he seems to be the only one to express a dissenting opinion on what he calls the EN-C period. The (*) is not a group, but only different settlement sites in the same area which have similar ornamented material. Mossby is defined by M. Larsson 1992. Finally, in 1988 Becker regards the material from the Danish island of Bornholm as material of Siretorp style. (Source: Becker 1947:126–141, 1990:43–45; Ebbesen & Mahler 1979; Madsen & Petersen 1984; Larsson, M. 1984, 1992.)

lithic. The results are extracted from a much too simplified classification system, where only the existence or non-existence of ornamentation techniques on the rim section of the vessels is taken into consideration. There is no consideration of patterns and combinations of different techniques on different parts of the vessel. A study based only on a minor stylistic part of a material is always very problematic. The tendency is to construct a more unified and simplified division of the material than necessary, overshadowing a more complex division, which probably would be available in the existing Early Neolithic material.

To work only with a minor part of the ornamentation compositions is also doubtful from the point of view of social-ethnic interpretation, since it ought to be the style of the whole ceramic vessel which had social significance; that is a message which consciously or unconsciously is expressed through the material. But the problem discussed here is; *whether the existing division can be regarded as in agreement with the existing archaeological material*. If one constructs some differences and similarities in the material based on a minor part of the available research-material, one ends up with a minimum of ideas, conscious or unconscious, which people expressed through style. The interpretation will then be of more simplified social significance to the society than necessary. If you simplify the definitions you will always, at some point, be able to find differences or similarities in any kind of material, no matter how great the differences or similarities are in their original form. Constructed similarities in a material such as this will always give a decreasing value of correctness compared with the social status embedded in the stylistic compositions. For example, if the definition of a car is a transportation means with four wheels, the stylistic and social status embedded in the difference between a Mercedes and a Morris would not be analysed or discovered.

This is particularly the case with the modern Early Neolithic division. In many cases the pottery has ornamentation over the whole

vessel, and one can often decide to which part of the vessel a very small sherd belongs (rim, neck or body); this makes possible a more detailed analysis. Consequently, regional observations of the stylistic differences in the Early Neolithic material based only on ornamentation constructions in a minority of the available material, severely reduces the possibilities of interpretation in the existing archaeological material. This does not imply that existing constructions should be regarded as completely without relevance to the existing material. But in my opinion, compared with the archaeological possibilities at our disposal, it is an unnecessary simplification of the material. Therefore a much more detailed analysis with greater relevance to the true structure of the archaeological material can be made.

The major problem with the existing Early Neolithic model is the lack of style variables, as all of them are bound to have significance for the structural order of the social consciousness, which the society in one way or another expresses through style (e.g. Shanks & Tilley 1987). This means that the modern construction is a much too simplified regional division of the Early Neolithic, stretching over the whole of southern Scandinavia. This picture would probably be completely different with a more detailed analysis of the material. And one thing is certain: if we want to find detailed and local differences or changes, we also have to work with more detailed and complex analyses of the material.

THE EARLY NEOLITHIC CONSTRUCTION IN THE SOUTH SWEDISH PROVINCE OF SCANIA

The division of the Early Neolithic into different regional groups in south-west Scania was published by Mats Larsson in a doctoral thesis, and in my opinion is defective due to methodological aspects. It is also impossible to analyse the foundations of Larsson's work, that is, you can't "redo" the division with his own methods. One obvious problem is that the percentage figures in his histogram (1984:fig.

96) which separate the ceramic material into different groups, do not seem to be in agreement with the actual integers that *occasionally* are presented in the text. This means that it is impossible to come up with the same results as those presented in Larsson's definitions (Larsson 1984:157, *passim*).

In addition, Larsson has placed the site Björkesåkra 6:1 in the Oxie material group, which I believe is wrong, since the Björkesåkra site otherwise would be the only site in the whole of Scandinavia from the so-called Oxie group which contains cord-ornamented pottery. It would also disrupt the methodological principles for the separation of EN material into different regional groups, since the cord-ornamentation technique is supposed to be one of the fundamental differences between the Oxie and the other EN-I material groups.

There is also an inconsistency in Larsson's schematic classification of the material (1984:157). His basic classification method, originally based on the existence or non-existence of the individual ornamentation technique on every single sherd, is suddenly changed in order to discern the youngest dated ceramic group (the Bellevuegårds group) from the two earlier ones (the Oxie and Svenstorp groups), by defining *ornamentation patterns* made up of different ornamentation techniques. The problem here is that different ornamentation patterns can be found in material from other EN groups as well. So when pattern analysis is not used consistently, it cannot be regarded as a valid method to separate one EN group from the others. Larsson on the other hand regards his result as three stylistically separate groups, namely the Oxie, Svenstorp, and the above-discussed Bellevuegårds group, where the latter is chronologically separated from the first two (Larsson 1984).

In 1986 Lars Larsson and Mats Larsson defined a number of sites from southern Scania as what they called the Mossby group. Once again the argumentation is lacking, and the group definition does not seem to be anything but a geographical isolation of the material in

southern Scania *from the same kind of material* that exists in the eastern and central parts of Scania, as well as in the east Swedish province of Blekinge (Bagge & Kjellmark 1939; Petré & Strömberg 1958; Stjernquist 1965).

The author's separation of this material from the one in south-west Scania, that is the Svenstorp group, is also vague and mostly discerned by the flint material. The ornamentation differences between the two areas are that the *Mossby site* – which defines the *Mossby group* – is completely dominated by cord ornamentation, and does not have as much different stick ornamentation as the Svenstorp group. What goes for the other sites in the Mossby group is, however, uncertain, since no real classification has been presented by the authors (Larsson & Larsson 1986:72–73; Larsson 1984, 1987a, 1992:73–75).

THE CONSTRUCTION OF EARLY NEOLITHIC SCANDINAVIA

With the broad definitions of today, the archaeological material from EN-I in the south of Sweden can only be divided into three categories, which can be associated with different Danish groups. These are the Svenstorp group from the south-western parts of Scania, comparable to the Danish Svaleklint group, and it is the material from the southern, central and north-western parts of Scania, as well as the material from the Swedish south-eastern province of Blekinge. With the existing classification methods, this material can be associated with the ornamentation style of the Danish Volling group from the western parts of Denmark. The Volling material has at the same time a strong resemblance to the Svaleklint group on the island of Zealand in eastern Denmark. Compared with the Volling material, however, the Svaleklint group has a slightly higher frequency of stick ornamentation on the rim part of the vessels. The third category is the Oxie group, with a completely different tradition of ornamentation. The Oxie group cannot be regarded as a regionally confined group, since the extension of this material covers more or less the whole of Scania and

thereby the areas of the other contemporaneous regional groups (i.e. Volling, Svaleklint, Svenstorp and Mossby).

If we apply the existing classification model – i.e. by only studying the separate ornamentation techniques of the rim – to a larger area of Scandinavia including other well-known EN regions such as the western parts of Sweden and the area of east central Sweden, this would result in the identification of three different Scandinavian style structures (fig. 2). These are the Svaleklint style in the central parts of Scandinavia (i.e. both Zealand's Svaleklint group and the Svenstorp group since the ornamentation techniques are the same) and the Volling and Oxie styles, the latter of which are "over-regional". With today's classification method the Volling style

structure is represented in the Volling group located in Jutland in western Denmark, and in the Mossby group in south-central Scania, as well as in the material from the Swedish province of Blekinge, the provinces of Halland and Bohuslän on the Swedish west coast, and in the EN material from the province of Södermanland in east central Sweden (Larsson, M. 1992; Petré & Strömberg 1958; Stjernquist 1965; Westergaard 1995 and unpublished material).

The third style structure, the Oxie group, has until now been considered as an east Danish phenomenon concentrated to Zealand and to western Scania, Sweden. This group has a completely different composition of ornamentation, characterised by having no neck ornamentation and, on the body, only

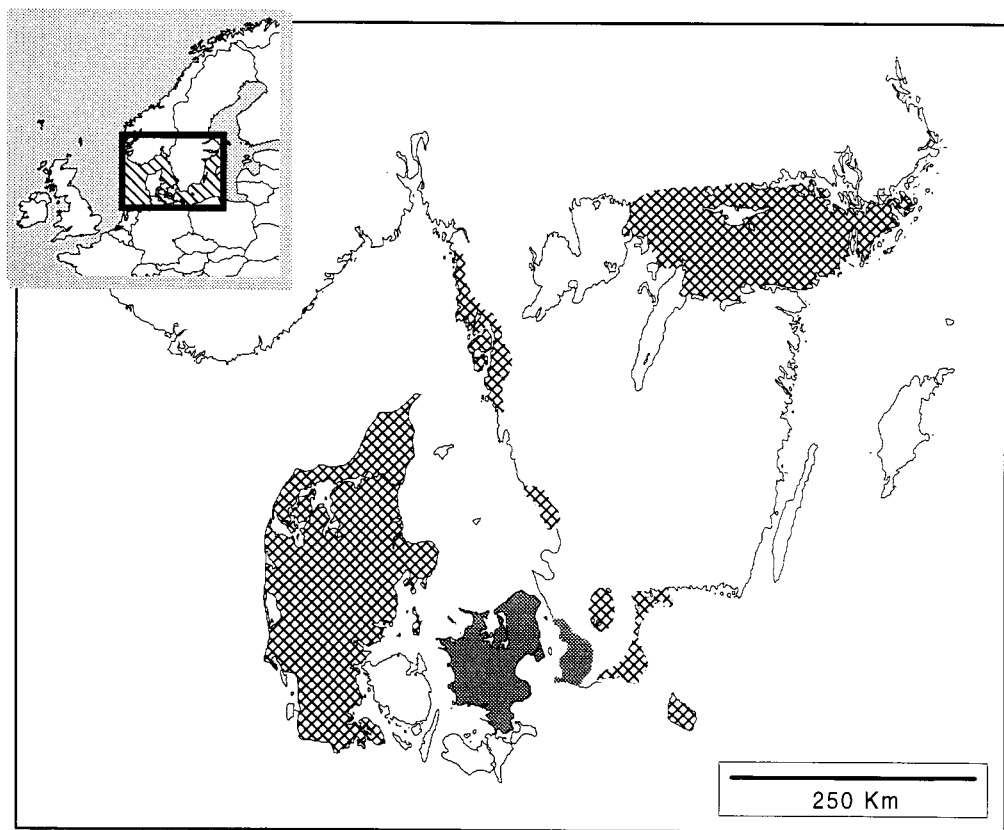


Fig. 2. The different style structures from EN-I, schematically drawn into different regional areas. Black area marks the Svaleklint and Svenstorp style. Hatched areas mark the Volling style. The Oxie structure is spread over the whole of south Sweden and Denmark.

vertical lines made of stick techniques or strokes. Also the rim section is only decorated with different kinds of stick techniques. Thus judging from the ornamentation of the vessels, the group has a decoration more similar to the Mesolithic Ertebølle phase than the other EN material groups (Larsson 1984:174; Madsen & Petersen 1984; Nielsen 1985. I will consistently use the term “phase” rather than “culture”, since in my opinion the term “culture” is too vague and a much too wide definition, which has been used far too long in the archaeological research. The term “culture” has never been well defined, so almost every scholar has different opinions on what the definition actually implies. Therefore it is not a useful term, despite its hegemony in archaeological research).

THE EXTENT OF THE OXIE MATERIAL GROUP

When it comes to the interpretation of the Oxie material as a phenomenon concentrated to the central part of Scandinavia, that is the Danish island of Zealand and western Scania, I would like to characterise this as a misjudgement. The presumed geographical extension is a conclusion based on an overall view of the material in the Oxie group, that is both the settlement and the bog finds.

The bog finds are a result of the fact that almost all the Danish bogs, which are more or less spread over the whole of Denmark, have partly been exploited for peat; the finds are very well preserved and well excavated, and were, mainly recovered during the period 1940–1960. As a result of the high economical compensation the bog-peat workers received when discovering archaeological remains, they were careful when finding archaeological items (Koch 1990, and personal notes from her Ph.D. lecture).

Consequently the archaeological bog-find material at our disposal is likely to be representative of the material which was once deposited, and it therefore represents an accurate picture of where and when the people put ceramic vessels into the Danish bogs.

But when dealing with the settlement sites we still have the classic representation problems, such as differences in the preservation conditions and land exploitation factors. These factors more or less completely determine how the distribution map of settlement sites looks. A closer look at the excavation activities in Denmark also shows a concentration of 8.5 excavations per square kilometre on the island of Zealand in eastern Denmark (for the islands of Zealand, Lolland-Falster and Møn together it is 7.4 per km²), while the same value for Jutland is 4.8 per square kilometre. This means that the excavation frequency on Zealand is 43% higher per square kilometre than in Jutland. This can logically be explained by the fact that population frequencies per square kilometre are considerably higher on the island of Zealand, which also results in a higher degree of urban areas and therefore a higher degree of excavations per square kilometre compared with other parts of Denmark.

The statistics also show a clear increase in land exploitation frequency from 1965 to 1982 per 1000 hectares, whereas “traffic aerial use outside cities” has risen by 18%, “cities with more than 200 inhabitants” by 49%, and “housing outside cities” by approximately 40%. Meanwhile agricultural activities, fruit-plantations and the like, have declined. And there is no logical reason to doubt that this development continues (Danmarks statistik 1995:17, 22, 1994:14, 1989:21, 1980:1, 1970:1).

During the period 1990 to 1994 59% of the Danish archaeological excavations were the result of typical urban exploitation factors, such as gas pipe construction, roadwork, construction-building enterprises, and natural resource exploitation, mainly the extraction of gravel-pits. Agriculture, forestry, and other reasons make up 33%, and finally, 8% of the excavations are self-chosen research projects (AUD 1984, 1986, 1990–1994; based on 2098 reported excavations).

Looking further, the settlement sites with Oxie material from the whole of south Scandinavia make up the majority among the Oxie

find categories (fig. 3). But if we instead examine only the Danish material, it appears that the bog and settlement finds are almost equal in number. However, there are no bog finds with Oxie material in Jutland (fig. 4), but several bog finds with Volling material. And in fact the majority of all archaeological bog-finds in Denmark belong to the eastern parts, and half of them are located in Zealand (47%) while only one third (31%) are located in Jutland in western Denmark. But since Jutland is considerably larger than Zealand, the relationship is better illustrated graphically (fig. 5).

An χ^2 -test resulted in the representation of bog vessels between east and west Denmark being significant (the H_1 had to be accepted). This means that the over-representation of the Oxie bog-vessels in the eastern parts of Denmark (the islands of Zealand, Lolland and Falster) is significant. *The conclusion must be that the bog-find material, which is a very well-excavated category of finds, is misleading when discussing the distribution of the Oxie material group in Denmark.* This must be the explanation, since the Neolithic bog-find phenomenon mostly occurs in eastern Denmark and since the Oxie material is not

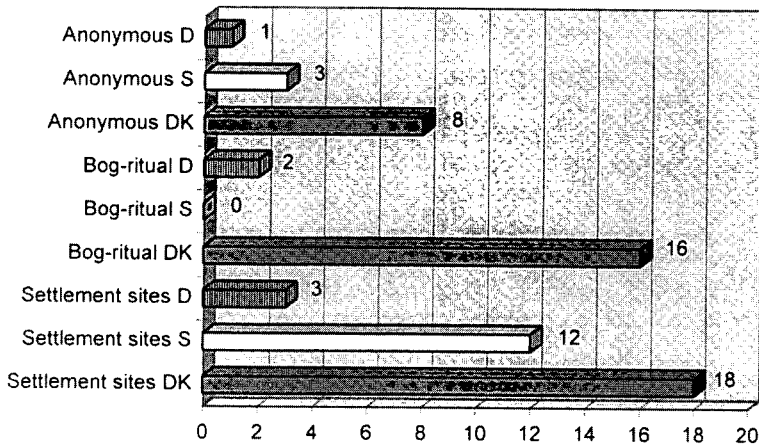


Fig. 3. Total number of Oxie finds in south Scandinavia (Germany, Denmark, and Sweden) divided into settlements, bog finds, and uncertain finds. (Source: Nielsen 1985; AUD 1985, nr. 265, 1992, nr. 111; Larsson, L. 1992; Larsson, M. 1992.)

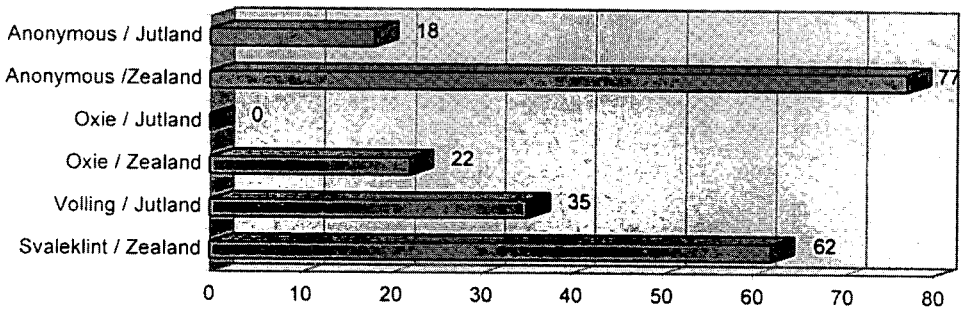


Fig. 4. Total number of bog finds with vessels of Svaleklint-, Volling- and Oxie-type, separated into those on the east Danish island of Zealand, and those in the west Danish region of Jutland. (Source: Becker 1947; Bennike & Ebbesen 1987, catalogue II.)

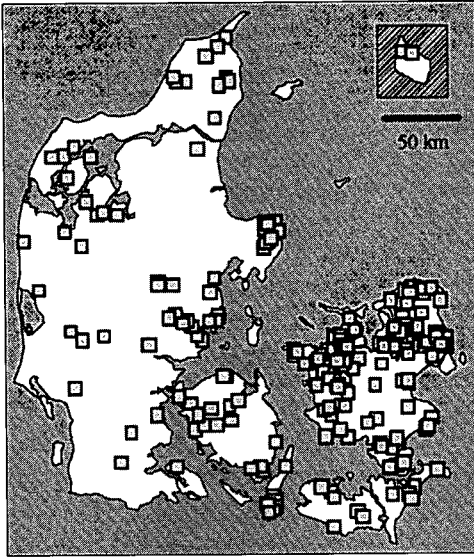


Fig. 5. The distribution of bog sites with ceramic material in Denmark. Jutland has 31% of the Danish bog finds but constitutes 70% of the Danish land mass, whereas the figures for Zealand are 47% of the bog finds and 17% of the Danish land mass. Fyn and Langeland have 18% of the bog finds, Lolland-Falster and Møn 4%, and finally the island of Bornholm has 0.8 % of the bog finds. (Source: Becker 1947:11; Bennike & Ebbesen 1987:99.)

represented at all in the bog finds from Jutland, despite the existence of Oxie settlement material in Jutland.

Thus, the only information the bog-find material tells us is that the actual act of putting ceramic vessels into the Danish bogs is mainly an eastern phenomenon, and when it comes to the Oxie group, it is an exclusively eastern phenomenon. There are no sure finds of Oxie vessels from bogs in the Swedish province of Scania, and only one uncertain site can possibly be categorised as a bog find. Therefore the conclusion must be that the extension of Oxie bog-finds has nothing to do with the distribution map of the people representing the Oxie material group. This extension can only be studied through the distribution of the settlement sites which are spread over the whole of Denmark and south Scandinavia, together with a single settlement find in the province of Närke, central Sweden (Eriksson *et al.* 1994).

The frequency factors should also be taken into consideration. We are talking about a total of 63 finds from the whole of Denmark, Sweden and northern Germany, and only 18 sites are bog finds. That is quite a low number of sites, but I have gone through all the relevant publications I could find, as well as the annual archaeological excavation report series *AUD*, and *Arkeologi i Sverige*. The problem, however, is that many reports are hazy in dating the finds, despite the fact that a more precise date is possible, but the conclusion is that the settlement sites (33 sites) are still in the majority.

Thus if we look at all Oxie finds (fig. 6a) we can see a clear concentration to eastern Denmark, and at the same time a concentration of the finds to the central parts of Scandinavia. But if we instead look only at the Oxie settlement sites (fig. 6b), we find that the Oxie settlement material is more or less equally distributed between western and eastern Denmark. Here we must also keep in mind that if any area should be over-represented in the material it would be the east Danish island of Zealand, due to a higher percentage of excavations per square kilometre.

The high concentration of Oxie sites in western Scania can also be explained by investigation intensity factors. It is here that most of the south Swedish exploitation and development enterprises have occurred during modern times, and in 1984 no less than 67% of the total number of Early Neolithic sites in Scania were concentrated to the western parts, with only 17% to the eastern parts and 16% to the central and south-central areas (56, 14, and 13 sites). Due to the special investigation campaign of the Ystad project and new finds from eastern Scania, the distribution map has changed, so the percentage figures today are 59%, 25% and 16% (56, 24, and 15 sites; source: Jennbert 1984:107–108; Larsson, L. 1992; Larsson, M. 1992). When taking the island of Bornholm into consideration, there are also Oxie settlements in the easternmost part of Scandinavia as well (Nielsen 1985).

Western Scania is in these calculations actually under-represented, since several non-

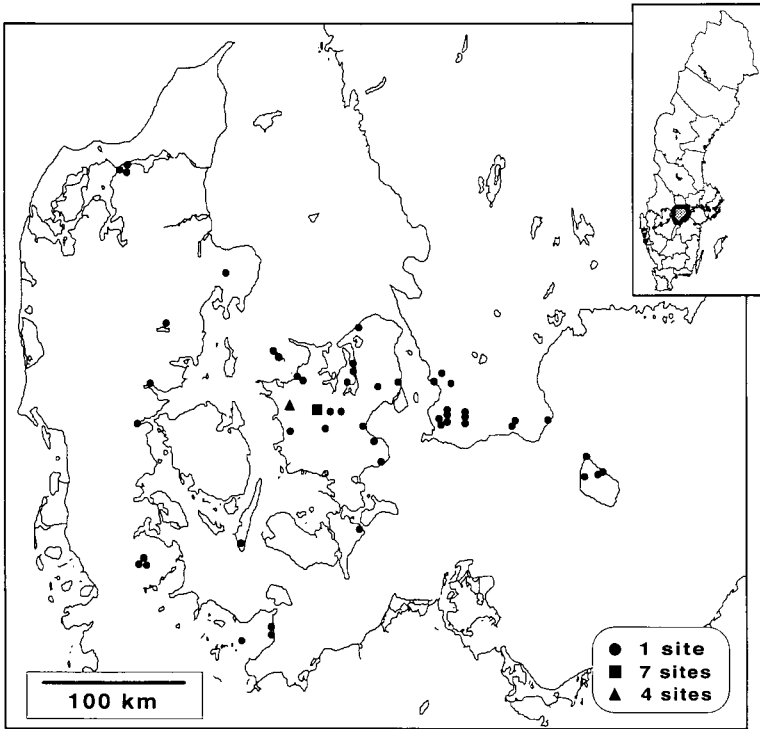


Fig. 6a. All known sites with Oxie finds in 1985-1996. On the small inserted map of Sweden, the grey area represents the Swedish province of Närke in east central Sweden. (Source: Nielsen 1985; [Stilling, Stilling sn, Skandeborg a] Madsen & Petersen 1984; [St. Herrestad 68:104, St. Herrestad sn] Larsson 1992; [Frotorp, Närke] Eriksson et al. 1994.)

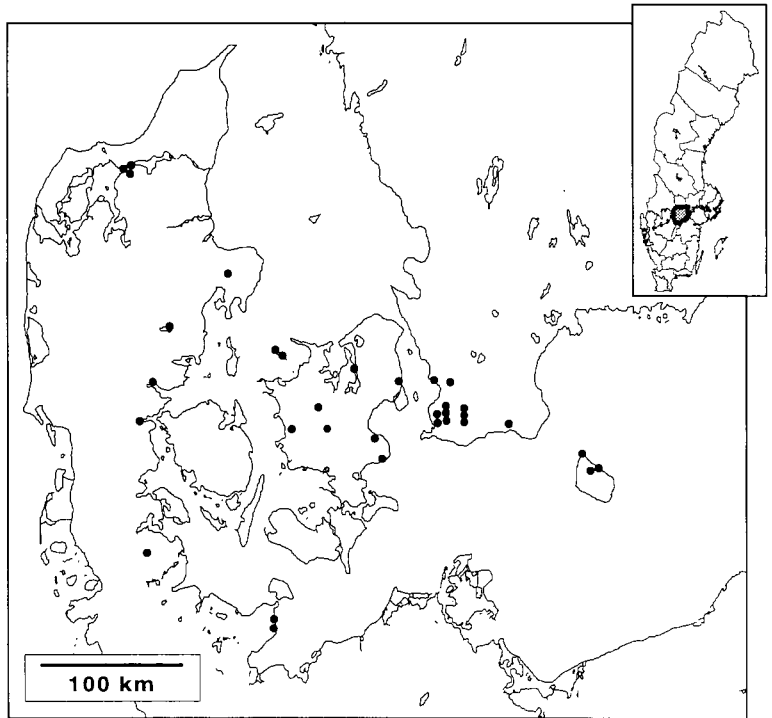


Fig. 6b. The figure shows only those Oxie sites that can be regarded as settlement sites – the bog finds are here removed. The site from the province of Närke is classified as settlement material. (Source as in fig. 6a.)

published excavations have been made in this region during the 1990s, mainly in the Malmö area. In addition we find the point-butted flint axes, which are regarded as a kind of defining artefact for the Oxie material group, scattered over the whole of Scania though with a higher frequency in south-west Scania. But as mentioned earlier western Scania is always dominant in the Neolithic material distribution due to excavation activities. This is also apparent when comparing the distribution of point-butted flint axes today, with Otto Rydbeck's old distribution map from 1928. It shows an equal distribution of axes between the eastern and western parts of Scania. Above all, we now also seem to have Oxie settlement material represented further north in east central Sweden. This is not so strange, as the same area around the lakes of Mälaren and Hjälmaren has a high frequency of Early Neolithic Funnel Beaker material quite similar to the Danish Volling style (Eriksson *et al.* 1994; Jennbert 1984:109, fig. 69; Karsten 1994:50–55; Florin 1958; Rydbeck 1928:86).

I therefore would argue that the Oxie group has its extension in different parts of Scania, on the islands of Bornholm and Zealand, as well as in the Danish mainland of Jutland, that is, over the whole southern area of the Scandinavian Early Neolithic Funnel Beaker phase. In Jutland the Oxie material is mainly found in the Limfjord area and the east coast. Finally, we also find Oxie settlement sites in Schleswig-Holstein in northern Germany, though with some reservation regarding the two sites of Siggeneben-Süd and Rosenhof. The publications of Siggeneben Süd show ceramics with long neck fragments, which are not supposed to be part of Oxie material. But on the other hand in a detailed work dealing with the A- (Oxie) group, Poul Otto Nielsen has classified the site as an Oxie site. This is also the reason why it is represented in fig. 6a–b. It is also doubtful whether one can really classify the German site of Rosenhof as an Oxie find, at least judging from the publications of the site; yet once again Nielsen (1985) has done that, and since I do not know whether he has

more detailed information on the site I have accepted his classification.

So for now I would say that it is impossible to consider the Oxie material as geographically concentrated to eastern Denmark, or to central Scandinavia. Instead it has a more or less equal distribution over the whole of southern Scandinavia.

DISTRIBUTION ANALYSIS OF THE EARLY NEOLITHIC-I MATERIAL GROUPS

So far it seems as if the EN-I pottery has a homogeneous ornamentation with three different and, from a Scandinavian point of view, global social-style structures: Volling, Svaleklint and Oxie. These have also been defined as three local groups, even though they are made up of clusters of sites spread out over large areas of south and central Scandinavia.

However, beyond the Oxie group there are also some questions concerning the extension of the two Danish style-structures of Svaleklint and Volling. When studying the matrixes and the plotting of the correspondence analysis of the EN-I group division, it is clear that the Volling and Svaleklint materials are quite similar to each other (Madsen & Petersen 1984). The Svaleklint sites of Slotsbjergby and Lindebjerg II (nos. 10 and 7 in the correspondence analysis) can be considered on the basis of the rim-ornamentation composition to be of Volling style. But seen from a geographical point of view, both belong to the Svaleklint group as a result of their location on the island of Zealand. This means that two out of five sites from the Svaleklint group in the analysis actually have material defined as Volling style (A problem Madsen & Petersen also is aware of, but at the same time does not seem to draw any consequences from, 1984: 99).

So when two out of five sites in one material group have a closer resemblance to another group it must imply that either this "other" group (here, Volling) is also located on Zealand, or that the method used to discern the data in the analysis is defective. However, that

there are considerable differences in ornamentation structures from different Scandinavian areas, is indicated by comparing the whole ornamented material (i.e. ornamentation from all parts of the vessels and combinations of different techniques) from different Scandinavian areas (cf. e.g. Bagge & Kjellmark 1939; Florin 1958; Becker 1947).

The problem with the local horizons is also seen in the later phase of the Early Neolithic (EN-II), where the so-called EN-II Virum style, which constitutes the local Virum group on the island of Zealand, is also present in the southern part of Jutland and in the region of Schleswig-Holstein, northern Germany. Therefore there is actually not much localness left in the EN "local group" construction at all.

A more accurate picture would require a more comprehensive approach to the ornamented material, which I believe can be obtained. The actual problem of reduction will, however, always, turn up to some extent when working with archaeological material, but with the existing method the differences that obviously exist and which can only be recognised by looking at the complete material from different regions, will never be discerned. The relevance of the existing model in relation to the TRB Early Neolithic archaeological material at our disposal, is therefore questionable.

THE OXIE GROUP AND THE ARCHAEOLOGICAL MATERIAL GROUPS AS SOCIAL UNITS

The different material groups have been considered to be the result of separate social organisations. But since there are problems in separating the material in one area from another, I would say that the constructions can hardly be interpreted as the result of different, independent, social units.

The Oxie group is, for example, hardly the result of one Early Neolithic ethnical group of people with an unified social organisation, since the Oxie material exists in all areas. The ¹⁴C dates show that the material cannot be regarded as the first step of the Neolithic

society in Scandinavia, since ¹⁴C dates from other Funnel Beaker sites, that is with cord-ornamented material, are earlier than any known Oxie ¹⁴C-dated site.

This scenario opens the possibility of two completely different social systems, one with the cord-dominated material (Svaleklint and Volling styles) and the other with the Oxie material, existing side by side during the same period of EN-I. The Oxie group is not a classic evolutionary first phase of the Funnel Beaker phase, but rather several Mesolithic groups of people whose development in the transformation to the "Neolithic life-style" is different from those people representing the other Early Neolithic style-structures. Perhaps the Oxie group, due to a close material relationship to the Ertebølle phase, can also be seen as different groups of people with some kind of closer historical "social bond" to the old customs of the Mesolithic Ertebølle phase, rather than as a single unified social group of the Early Neolithic. This would result in a cultural dualism based on time-related material changes of the earlier, homogeneous, Ertebølle ceramic material phase.

Social change must of course be regarded as a constant occurrence in all societies, but this does not necessarily mean change in the social organisation and a complete shift of social attribute in the material culture. I personally believe that there are enough indications to regard the Oxie finds as something different from the rest of the EN-I material.

For instance, in the ornamentation of the Oxie material and Ertebølle material the same kinds of techniques are used, even though the style patterns can differ. And neither of them have the indisputably most important techniques of the other EN groups, namely the cord, twisted cord and *furchenstich* techniques. This proves there is a closer resemblance between the Ertebølle and the Oxie composition of ornamentation, than between the Oxie and the Svaleklint-Volling material.

There is also a closer overlapping of territories among the Ertebølle and the Oxie material, and the two can often be found in mutual,

so-called, hunting sites. At the sites of Rosenhof and Siggeneben-Süd in Holstein, northern Germany, the Ertebølle and the Oxie material (provided the material really is Oxie) cannot be stratigraphically separated. On the other hand Nielsen regards the two Oxie sites in Holstein, Germany (1985:115) as sure proof of cohesion between the two material compositions. The same is proclaimed for the site of *kv. Nore* in Scania, Sweden (Salomonsson 1971). However, it is not certain whether one can assign the material of this site to any of the two material categories, as the material from *kv. Nore* also contains fragments of thin-butted flint axes.

In the flint material of south-west Scania there is also a closer resemblance between the Oxie and the Ertebølle phase, than between the Ertebølle and the cord-dominated material, that is the Svenstorp group. The general opinion is that Ertebølle artefacts are mainly made of flakes, which is very common to Oxie finds as well, and the same types of burins made of a core or a flake are known in both Ertebølle and Oxie finds. Another major difference between the Oxie and the other EN-I material groups is the frequent finds of point-butted flint axes in Oxie contexts, but a total lack of thin-butted axes, and vice-versa in the artefact material of the cord-dominating EN-I material (Larsson 1984:161–164; Nielsen 1985, 1987; Salomonsson 1971).

At the bottom of the so-called Neolithic layer of the Bjørnsholm midden, a vessel was found which shows the typological relations to both the Funnel Beaker and the Ertebølle phase in Scandinavia (Andersen 1993:87). Hypothetically this could indicate a kind of pre-Neolithic transition in the final Ertebølle phase. The indications of the Oxie group as a slowly changing final stage of the Ertebølle period are further strengthened by the excavations at the sites of Löddeborg and Vik in Scania. These sites include both Early Neolithic Oxie ceramics and Ertebølle ceramics with cereal impressions. Moreover seed pollen is observed in Scanian pollen series from Late Atlantic time (Jennbert 1984:93–95; Görans-

son 1983). However, these results can be disregarded as indications of agriculture in the Ertebølle phase (Nielsen 1987), by simply viewing them as the result of trade with Neolithic Central Europe. Thus in this particular case both interpretations are valid.

There is also considerably greater cohesion between Ertebølle and Oxie burial practice than between the Oxie group and the other EN-I material groups, as in the latter the burial practice is characterised by the use of earthen Long Barrows with all the ritual activities they seem to involve. From the Oxie group there is only one sure grave, which also is placed beside a Mesolithic grave (Brinch Petersen 1974).

To sum up this discussion, it should be mentioned that a greater change seems to occur in the Ertebølle phase as the ceramic material becomes an all essential part of the archaeological context of that phase, than between the late Ertebølle phase and the Oxie part of the Early Neolithic phase. Thus if discontinuity or a fundamental change in the material culture represents a marked change in social identification (a fundamental preconception which can always be discussed), then the Ertebølle integration of ceramics in the material composition should be regarded as a more fundamental change than the differences that can be seen between the Ertebølle and the Oxie flint artefacts and ceramic style-structures as well as in the settlement and burial contexts. However, the Ertebølle and Early Neolithic groups, as social constructions, may purely be the result of our need to transform systemic organisations of visual material differences into completely self-constructed systems, which are without any relevance at all to prehistoric times.

CONCLUSIONS

(i) The Early Neolithic construction of today results from a much too simplified classification of the ceramics, with a widely defined chronology, established with the help of ¹⁴C dates. Thus the picture would probably be

different if we began to include all parts of the vessels in our analysis.

(ii) I believe we should stop seeing the Oxie group as a kind of eastern phenomenon in Denmark, or a phenomenon concentrated to the central parts of southern Scandinavia. The group of archaeological material named Oxie exists more or less homogeneously over the whole of southern Scandinavia and most likely in the TRB area of east central Sweden as well. There is also a closer resemblance in the flint material and the composition of ornamentation between the Ertebølle and the Oxie phase, than between the Ertebølle phase and the other EN-I ceramic groups.

(iii) Based on the premise of style as something socially significant, we can conclude that there must be some differences between the cord-dominated material and the better defined Oxie material group. But I would also maintain that the separation of the archaeological material into the Svaleklint and Volling groups at this stage is questionable. The differences between the two groups are too small, especially when taking the whole of Scandinavia into consideration as well as the uncertainty in the classification of the material in the correspondence analysis that constructs the Early Neolithic.

(iv) By rejecting the processual systemic stiffness in the construction of archaeological material phases, and by accepting a cultural dualism during the transition to the Early Neolithic where the different EN style structures should be seen as time-dependent material changes of the Ertebølle phase, the Oxie group can be considered as the result of a development, different from that of the other Early Neolithic style structures. Due to a closer material relationship with the Ertebølle phase, it is also possible that the Oxie material represents different groups of people from different parts of Scandinavia, all with closer historical "social bonds" to the life-style of the old Mesolithic Ertebølle phase, than to the other material groups of the Early Neolithic. And this is why the Oxie and the cord-dominating ceramic material appear so different.

POSTSCRIPT

After this article was concluded, Mats Larsson in a new article expressed some viewpoints that I need to comment on. Larsson argues, on the basis of radio-carbon dates, that the old A, B, C typology is accurate. This is without success, however, since no new dates strengthen the argumentation. Radio-carbon dates from the old C-group (e.g. Mossby) are still earlier than any known Oxie-date (the old A-group). Larsson's as well as Becker's (1947, 1990) construction is rather based upon classic typological faith without any regard for existing radio-carbon dates. Larsson has also constructed a new local group, the Slottsmöllan group from Halland on the Swedish west coast. The material and the name are from Westergaard's article (1995), but Larsson disregards the argumentation, which is that the Slottsmöllan material shows the need for a larger, west Swedish regional group including both the Slottsmöllan and Larsson's Svenstorp group from south-west Scania. Larsson's definition is therefore an isolation of the material from the Slottsmöllan site, so the division is once again a question of geographical distance, without any stylistic differences being accounted for (Larsson in Kihlstedt *et al.* 1997:90, 94–97).

English revised by Laura Wrang.

ABBREVIATION

AUD: Arkæologiske Udgravninger i Danmark, Copenhagen.

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