Neolithization in Scania – A Funnel Beaker Perspective

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INTRODUCTION

This contribution to the discussion concerning the neolithization of Scania and Southern Scandinavia serves two purposes: to reply to Kristina Jennbert and to view neolithization in the perspective of the Funnel Beaker culture.

In an article in this journal, Kristina Jennbert presented her view of the Mesolithic/Neolithic transition (Jennbert 1985). According to her, the Funnel Beaker culture is an integral part of the Ertebølle culture. Jennbert's model takes its starting point in the Löddesborg settlement on the west coast of Scania (Jennbert 1984). This settlement exhibits a large number of occupation layers, thought to represent four or five different settlement phases, depending on which part of the settlement is under discussion (Jennbert 1984:34). Great importance is attached to the circumstance that Early Neolithic Funnel Beaker pottery is found in all layers, though in increasing amounts the higher up in the stratigraphical sequence one goes (Jennbert 1984:51). This, in conjunction with the fact that no differences in craft techniques could be ascertained, is taken as an indication of synchronism between the Ertebølle tradition and the Funnel Beaker tradition. Jennbert furthermore maintains that corn-growing and stock-raising have been components of Ertebølle economy (Jennbert 1984:92ff.). That cultivation occurred at the Löddesborg settlement is also definitively supported by some impressions in Ertebølle potsherds (Jennbert 1984:94). In a highly original and stimulating thesis, Jennbert has thus attempted to convince students of the Mesolithic and Neolithic that we are actually dealing with different manifestations of the same thing. The present author is not convinced of the correctness of the interpretation of the course of neolithization and has therefore been inspired to present a deviant interpretation of neolithization and development during the oldest part of the Early Neolithic in Scania.

The basis for interpretation derives from two areas of Scania: the southwest and the region around Ystad in the southeastern part of the province. Material from the former area has furnished the basis for a division of the Early Neolithic into three groups: the Oxie, Svenstorp and Bellevuegård groups (Larsson, M. 1984:156ff.). In this division, the two first-mentioned groups comprise the oldest part of the Early Neolithic, whilst the last-named is the latest and constitutes a transitional phase to the Middle Neolithic.

In the following, a hypothetical model for the transition will be presented, after which the hypothesis will be tested against the knowledge we today have from southern Scania, both environmental and archaeological.

NEOLITHIZATION IN SCANIA – A MODEL

Towards the end of Late Atlantic times, we can distinguish a considerable number of important settlement areas of the Ertebølle culture in Scania: Jonstorp, Löddesborg, Malmö, Kämpinge, Skateholm, Öja/Herrestadmosse, and Simrishamn/Vik areas. All these, with the possible exception of Löddesborg and Vik, must have been archipelago- or lagoon-like areas. Put simply, they would have been ideal settlement areas. The settlements also give the impression of being increasingly permanent, but with seasonal encampments around the inland lakes and water-courses. The settlements near the coast have naturally been sensitive to changes in sea-level, which also brought altered conditions for the various fish and molluscs. It is clear that around 3200 BC (uncal.) something happened to change the conditions of life of the population. The latest dates for the Ertebølle culture also lie in the interval 3200–3100 BC, and it is what happened in this interval which is the whole problem. Archaeologically, then, the Ertebølle culture in its classical form stops around 3100, and around 3000 the oldest Neolithic culture, the Funnel Beaker culture, appears. The model for the phase which is presented here is hypothetical, and the indications will be discussed later in this article.

Around 3100 BC, the Ertebølle culture was under severe pressure. The Late Atlantic changes in sea-level had influenced and changed the environment in the above-mentioned areas so markedly that new strategies for subsistence had to be tried. Since people evidently already knew about corn-growing, and perhaps also pig-keeping, this could provide a useful contribution to the economy. In consequence, the settlement pattern was radically altered, and the emphasis shifted from the coast to the inland areas. That the Ertebølle people had already exploited the inland area for fishing, hunting and gathering appears from both settlement finds and finds of Limhamn axes. Evidence of inland forest clearance may also be observed in certain pollen diagrams. Altogether, this indicates that first and foremost the southwest Scanian hilly landscape was not terra incognita for the population. This area is also ecologically richly varied, with a considerable range of soils, watering, and vegetation. It is therefore not so remarkable that the oldest Early Neolithic settlements in Scania are found inland (with some exceptions). In contrast to the late Ertebølle culture, the earliest Early Neolithic settlements were undoubtedly of family size. The majority are located in hill tracts with light, sandy soils. Closeness to water was also an important attraction. This change in settlement pattern is accompanied by a change in social structure. An important indication for this is the lack of cemeteries from the older part of the Early Neolithic. The combination cemetery/settlement is found in several places, among them Skateholm in southern Scania, during Atlantic times, but is entirely lacking during the Early Neolithic. The long-barrow tradition, which seems to be already found in the early Funnel Beaker culture of Jutland, is evidently also absent from Scania. A division into smaller units, which occurred during the Early Neolithic, obviously gives a situation quite different to that which previously existed.

A hypothetical model for developments during the Mesolithic/Neolithic transition has been briefly presented above; in the following the environmental and archaeological evidence will be discussed. Emphasis will first and foremost be laid on the new investigations being carried out in the Ystad area in southeastern Scania. Since 1982 this area has been the object of a multidisciplinary research project designated "The Cultural Landscape during 6000 Years", or as it is popularly called, the "Ystad Project" (Berglund 1984; Berglund & Stjernquist 1981; Berglund 1985). By way of introduction, the in some respects interim results of the palaeo-archaeological investigations will be discussed, followed by the archaeological evidence in south Scania.

PALAEO-ARCHAEOLOGICAL INVESTIGATIONS

Within the area of reference of the Ystad Project, 7–8 pollen diagrams will altogether ultimately be available. At present, pollen diagrams from four localities exist (Gaillard 1984, 1985; Hjelmroos 1985; Nilsson 1961; Berglund 1985). Two of these, Bjärsjöholmssjön (lake) and Fårarpsmosse (bog), may be said to be near the coast, while the two others, Krageholmssjön and Vasasjön (both lakes), are inland localities. Between these four localities there are interesting differences that can only be briefly touched on here. During the latter part of the Atlantic period, human influence on the landscape can be distinguished in the diagrams from Bjärsjöholmssjön and Fårarpsmosse (Berglund 1985:44f.). Artificially open areas have been demonstrated through the presence of *Plantago lanceolata* (ribwort), *Artemisia* (mallow) and *Chenopodiaceae* (the goosefoot family). In addition, there is occasional pollen of *Cerealea*, though *not* of *Triticum* (wheat) or *Hordeum* (barley) type (Berglund 1985:45; Hjelmroos 1985:48). A possible interpretation of these clearances is that they were made by Mesolithic man to encourage game (Mellars & Rheinhardt 1978:282).

The elm decline has been the object of fierce debate for a very long time (for a summary, see Larsson, M. 1984:189ff.). Today, most palaeo-ecologists hold that the elm decline was an ecological catastrophe caused by natural agencies such as Dutch elm disease and climatic changes (Berglund 1985:45). In conjunction with the elm decline, or shortly after it, the first traces of cultivation appear in the diagrams from Bjärsjöholmssjön, Fårarpsmosse and Vasasjön (Nilsson 1961: supplement 1; Hjelmroos 1985:48; Berglund 1985:fig. 4). This stage is now dated to 3000–2600 BC and is termed "expansion phase 1". During its course, stock-raising seems to have been predominant. Hans Göransson terms the stage a swidden and pasturing phase (1982:208). There is, however, no palynological evidence in the area under consideration for his idea of pollarded woods (Berglund 1985:45).

The interesting part is that expansion phase 1 can be demonstrated in only three of the four pollen diagrams under discussion. In the diagram from Krageholmssjön in the inner hilly landscape, this stage is completely absent, and no traces of human impact can be ascertained earlier than the Late Neolithic (Gaillard 1985:19). What, then, can this difference be due to? In the following, the archaeological evidence will be discussed.

THE ARCHAEOLOGICAL MATERIAL

The archaeological investigations in the Ystad area can be said to comprise three levels: inventorization of museum and private collections, perambulation, and archaeological excavation (Larsson & Larsson 1984). The aim has been that all accessible land shall have been inventorized by the end of the project, and this large data bank will in conjunction with the archaeological excavations and collections constitute the basis for an evaluation of Neolithic settlement in the Ystad area. Here, the material can be only briefly touched on. During the course of the work, it has become apparent that precisely the area around Krageholmssjön is relatively poorly furnished with find material. Evidence of an Early Neolithic settlement is entirely lacking around the lake. This constitutes good correlation with the pollen diagram. Around the other localities, perhaps primarily Vasasjön and Fårarpsmosse, there are a number of Neolithic settlements, several of which have been investigated, among them the interesting Karlsfält settlement (Larsson, L. 1985). This comprises two occupation horizons: an Early Neolithic and a Middle Neolithic, agreeing nicely with the results of the pollen analysis. A very likely explanation for the difference in settlement pattern is the great differences in soil conditions between the various areas around Krageholmssjön, the soils are mostly stiff clays, whereas around Fårarpsmosse and Vasasjön there are considerable tracts of sandy soil – again clear evidence that areas with light soils have been attractive during the Early Neolithic! This combination of sandy soil and settlement is repeated throughout the Ystad area.

The archaeological results hitherto from the Ystad area may be summarized as follows. The oldest settlement is located in two zones: the inner hill country and the coastal zone. In the latter area, the evidence is not very strong, although two settlements have been encountered and investigated. A study of the distribution of pointed-butted axes gives the impression, however, that the oldest Funnel Beaker culture is an inland phenomenon (Hernek 1985). This is even more apparent in southwestern Scania (Larsson, M. 1984: 207ff.). It is clear that at no site is there any contact between the late Ertebølle culture and the early Funnel Beaker culture. This has also been demonstrated in the Skateholm area, nearly 15 km west of Ystad (Larsson, L. 1984). The Neolithic settlement is somewhat later, EN C, however, but furnishes clear evidence that the environment was altered so much that a relatively abrupt change occurred (Larsson, L. 1983:35ff., 1985:3ff.).

It is my opinion that no contact between the Ertebølle culture and the Funnel Beaker culture occurred; that development was continuous and the Funnel Beaker culture built on a tradition which had its roots in the Ertebølle culture is quite clear, however. This is noticed first and foremost in similarities in flint implements, but the differences in material culture are nevertheless considered to be relatively great. Quite new types of pottery vessels and axe shapes were developed al-

ready during the earliest phase, but we should be fully aware that development may have been very different from one region to another. As early as the first part of the Funnel Beaker culture, there are clear differences in material culture between, for example, southwestern and southeastern Scania. As an example may be mentioned that the flake axe is completely missing in the oldest Funnel Beaker settlements in the latter area. This development can also be traced in Denmark (Madsen & Petersen 1984) and Britain (Bradley 1984:12). Something which cannot be explained away in Jennbert's reasoning, however, is the presence of corn impressions in the pottery from Löddesborg. But this does not mean, as discussed here, any coevality between the Ertebølle culture and the Funnel Beaker culture.

Can we say whether the hypothesis is valid? The answer can be summarized in a few important points which for the most part, in my opinion, bear out my hypothesis.

1. CLIMATOLOGICAL CHANGES

That the climate deteriorated during the Atlantic/Subboreal transition could be demonstrated in bogs, also in Denmark. In the bog at Draved, Aaby could establish that the degree of humus development in peat was low around 3100 BC (Aaby 1974:95). This shows striking agreement with the new dates for the elm decline, which is put at 3200–3100 BC. Through studies of the fluctuations in water level, Gaillard has within the frame of reference of the Ystad Project been able to demonstrate low water-levels, i.e. a warm and dry climate, during large parts of the latter part of the Atlantic period (Gaillard 1985:17). Around 3050 BC, however, a change can be registered: higher water-levels which can be attributed to increased precipitation and a climatic deterioration (Gaillard 1984:30–31). As will be apparent, there is a correspondence in time between all these factors. It really can be a matter of "ecological catastrophe", as Berglund expressed it (1985:45).

2. PALAEO-ECOLOGICAL CHANGES

In the new pollen diagrams from the Ystad area, there are indications of human influence during Atlantic times, probably clearances to encourage game. There is sporadic evidence of cereal pollen but *not* of the usual types of corn: it is a question of large species of grass (verbal information from Prof. Björn Berglund). Evidence of pollarded woods, as suggested by Hans Göransson, is not found, and the period is characterized by a stable forest ecosystem (Berglund 1985:45). The real change occurs with the elm decline around 3200–3100 BC. As mentioned above, this stage is characterized today as an ecological catastrophe. The first indications of human impact do not appear until around 3000 BC. At this stage, there is evidence of cereals and pasture-indicators like *Plantago*. This stage is, however, not synchronous over the whole area, unless metachronism is involved. In particular the coastal zone and the inner hilly landscape give the impression of having been attractive in the initial stages.

3. THE ARCHAEOLOGICAL MATERIAL

Since it is primarily the Ystad area which is discussed in this article, I have to focus on this area when the archaeological evidence is considered. This discussion can for reasons of space be only brief, but some points are worth discussing in this summary. Finds or settlements which should suggest circumstances like those at Löddesborg have not occurred in the Ystad area, nor in other parts of south Scania, apart from some corn impressions in Ertebølle pottery from Vik (Jennbert 1984:93). In the Ystad area, the oldest Neolithic settlements are found partly on the coast and partly in the inland hilly landscape, where above all the sandier soils were settled. Within the Ystad area, and in southwest Scania, the hypothesis advanced here gives a plausible picture of the development during the Mesolithic/Neolithic transition. The finding of corn impressions in Ertebølle pottery can, though, as mentioned, not be explained away, but why try to parallelize two essentially different traditions like the Ertebølle culture and the Funnel Beaker culture? Other explanations must, in my opinion, be applied to Löddesborg and other so-called "mixed sites". Space does not allow this, but there is reason to return to the question.

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