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Ertebølle and Swifterbant: a comparison of attitudes

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Abstract

An overview of recent text books on the European Mesolithic and Neolithic suggests that the Swifterbant culture of the Netherlands and the Danish Ertebølle culture have much in common. These similarities are found not only in the material culture (point-based pottery), but also assumed for social structure. However, recent excavations and subsequent analysis in the Netherlands reveal that these similarities are overestimated. The tradional view is questioned here by means of a comparison of the process of neolithisation in both regions, after which the consequences of this reinterpretation in terms of world view are considered. It is concluded that there are important differences between the people of the Swifterbant culture and those of the Ertebølle culture in their attitude towards arable farming and animal husbandry. These differences are seen as more fundamental than superficial similarities in certain categories of material culture.

Résumé

L'analyse de publications récentes sur le Mésolithique et Néolithique en Europe suggère que les groupes de Swifterbant aux Pays-Bas et d'Ertebølle au Danemark soient comparables en ce qui concerne la culture matérielle (la céramique avec bases pointées) et probablement aussi pour la structure sociale. Suite aux fouilles récentes menées aux Pays-Bas et les analyses qui en ont été faites, il est évident que ces similitudes sont surestimées. L'image traditionnelle est ici mise en question suite à une comparaison des processus de néolithisation tels qu'ils se sont déroulés dans les deux régions. Les conséquences de cette interprétation sont ensuite prises en considération pour l'étude de la mentalité de ces peuples. En conclusion, il semblerait que des différences importantes existent entre le groupe de Swifterbant et le groupe d'Ertebølle dans leurs attitudes à l'égard de l'agriculture et de l'élevage (du bétail). Ces différences sont considérées comme plus importantes que ne le sont les similitudes superficielles décelées dans certains domaines de la culture matérielle.

1. THE TRADITIONAL VIEW

According to recent publications, the occupation of the Netherlands and Denmark during the 5th millennium B.C. (the Swifterbant and Ertebølle cultures respectively) reveal significant similarities in material culture. While some authors only imply these similarities (Champion *et al.*, 1984: 101; Barker, 1985: 165; Zvelebil & Rowley-Conwy, 1986: 78; Thomas, 1996: 316), Bogucki (1988: 129) explicitely states that: in the Rhine-Maas delta, smaller agrarian settlements appeared [...]. The Dutch and German sites, while yielding charred grain and the bones of domestic animals, are closely related in their material culture to the Late Ertebølle/Ellerbek culture of Denmark and Northern Germany, which appear to have maintained its foraging economy until close to 3000 bc [3750 B.C., DR].

Similarities in material culture between the Danish and Dutch sites are of course not accidental; the suggestion of cultural affinities is clear, but again seldom made explicit. A rare example of an explicit statement on such cultural affinities is made by Thomas (1996: 129): although the late mesolithic groups dispersed between the Low Countries and the Polish lowlands form a relatively coherent unit, it may be that native communities were involved in interaction with the LBK from its earliest incursion into temperate Europe.

This present-day correlation of the Swifterbant and Ertebølle cultures commences with the first publication on the Swifterbant excavations by Van der Waals (1972). From the start, the occurence of point-based pottery at Swifterbant is seen as a signifier of the structural sameness of the Swifterbant and Ertebølle cultures. According to Van der Waals, the pottery similarities are the result of "contacts with the Ertebølle-Ellerbek Kreis" (1972: 170). Other archaeologists, primarily working with pottery, follow his interpretation. In 1979, P. de Roever concludes in her often-cited article *Swifterbant-Dutch Ertebølle?* that: "although the Ertebølle culture in Denmark differs from Swifterbant in other cultural aspects, there are many similarities with regard to the pottery [...]. Although the Swifterbant pottery is perhaps more variable, it can nevertheless be attributed to the same ceramic tradition" (1979: 23).

It may be said that the supposed cultural affinities between the Swifterbant and Ertebølle cultures to a large degree derived from this citation, judging from the references in the books cited above.

I have the impression that the subtle mention in de Roever's article of differences in other cultural aspects of the Swifterbant and Ertebølle cultures was perhaps *too* subtle to be understood by outsiders. This point is easily demonstrated

when the research on the flint material from the Swifterbant culture is taken into account. Already in 1982, P. Deckers stated that "on the basis of the flint material there appears to be little association between Swifterbant and Ertebølle" (1982: 38). His article, in the same series as de Roever's, is not cited in the books mentioned above. Of course, a comparison of the Swifterbant and Ertebølle cultures should also take differences in other categories of material culture into account. A re-appraisal of the extent of the similarities between the Swifterbant and Ertebølle cultures should not only be based on more categories of material culture than pottery, it should also take into account that in recent years new data from the Dutch wetlands provide new insight into the process of neolithisation in this area. As a result, the observed similarities between Swifterbant and Ertebølle pottery become of lesser importance (Raemaekers, 1997).

2. THE PROCESS OF NEOLITHISATION COMPARED

The following comparison of the process of neolithisation in Denmark and the Netherlands begins with the remark that it should focus on the transition in subsistence strategy from hunting and gathering to arable farming and animal husbandry, rather than developments in material culture. Of course, it has to be realised that this transition is not a replacement, but rather an extension of the existing spectrum of subsistence strategies with new elements, placed alongside traditional ones. Although it may seem that this focus on subsistence strategies diminishes the importance attributed to material culture, the opposite is true. I would like to suggest that the available evidence on subsistence strategies should be interpreted as other categories of material culture, because it may also shed light on questions traditionally answered on the basis of pottery, flint artefacts etc. As the German proverb *Man ist was Man ißt* (you are what you eat) reveals, the construction of identities may very well be reflected in the archaeological remains of past diets.

The starting point for this comparative study is the realisation that from the period of the Rössen culture onwards (4900–4500 B.C.), the inhabitants of both Denmark and the Netherlands (beyond the loess) had intensive or at least repetitive contacts with farming communities. These contacts are reflected in the numerous finds of perforated wedges of Rössen type (*Rössener Breitkeilen*) in both areas (Denmark: Fischer, 1982: fig. 3; the Netherlands: Van der Waals, 1972: fig. 62; Raemaekers, in prep.). The implications of these finds are numerous: not only do they reveal that these hunter-gatherers acquired knowledge of new categories of material culture (pottery, polished axes, longhouses) and new subsistence strategies, but also of an alien social life. As of this time, the novel ideas of arable farming and animal husbandry must have been available to the inhabitants of Denmark and the Netherlands. Their attitudes towards these new subsistence strategies, that is the process of neolithisation, is compared in this paper.

We will discuss the Danish evidence first. The ceramic phase of the Ertebølle culture starts around 4800 B.C. in Jutland, while it may have begun somewhat earlier in North Germany (Meurer-Balke & Weniger, 1994: 276–277). The start of pottery production in this area may well have been the result of the same contacts that are reflected in the scatter of broad wedges in Denmark. While the *idea* of pottery may well have derived from their farming neighbours, the technology and morphology of the Ertebølle pottery is clearly not inspired by Rössen examples (fig. 1). The newly available subsistence strategies seem to have been rejected repeatedly by the Ertebølle hunter-gatherers for many generations: cereals and domestic animals in Ertebølle contexts are absent (Zvelebil & Rowley-Conwy, 1984: 109). Instead, the wide spectrum of available wild food resources is thought to have enabled a continuation of the traditional lifestyle of this 'original affluent society'. The co-occurrence of small special activity sites and large year-round occupied sites in the coastal areas is generally interpreted in terms of a logistic mobility system, in which seasonally or year-round occupied residential sites operated alongside special activity sites. The occurence of cemeteries and the sedentary lifestyle is seen as a reflection of territorial behaviour (Rowley-Conwy, 1983; Madsen, 1986: 230–233).

The mesolithic-neolithic transition in Denmark is correlated with the change from the Ertebølle culture to the Funnel Beaker culture. In Jutland, the start of the Funnel Beaker Volling Phase is dated around 4000 B.C. (Andersen, 1991: 91; 1993: 67). From this period, various types of cereals are recorded: emmer wheat, einkorn,

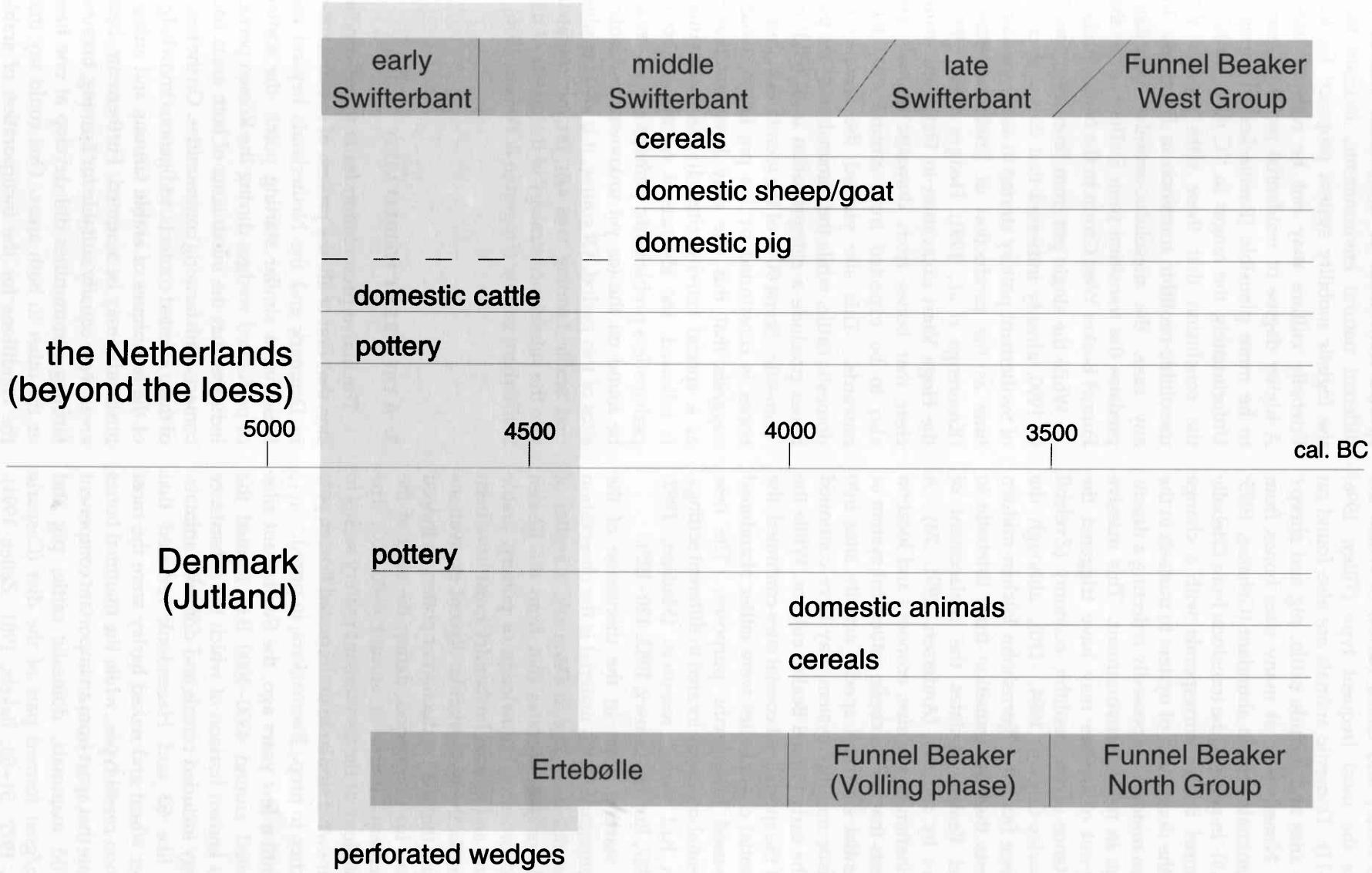

Fig. 1 — The process of neolithisation in the Netherlands (beyond the loess) and Denmark compared.

hulled barley and naked barley, of which the last is the most frequent type (Tilley, 1996: fig. 2.11). Domestic animals are also found on many sites and include cattle, pig and sheep/goat. Nonetheless, at many sites bones from wild animals remain abundant (Gehasse, 1995: tab. 9.8). In general, the transition from Ertebølle to Funnel Beaker corresponds with a change from the dominance of oysters to mussels in the kitchen middens, supossedly reflecting a drastic change in natural environment. This massive dying-out of oysters may have triggered the acceptance of the neolithic economy (Zvelebil & Rowley-Conwy, 1984: 110), although the evidence from the Bjørnsholm kitchen midden suggests that the transition from Ertebølle to Funnel Beaker predates the replacement of oysters by mussels (Andersen, 1991: 74). A combination of site size, economy and location suggests that the Ertebølle settlement system of residential sites and special activity sites into a logistic mobility system may have continued into the early Funnel Beaker culture. While the use of the specialized coastal sites continued, the residential coastal sites were either abandoned or re-used for specific purposes. The new residential sites were located in different settings, which had varied resources (Madsen, 1982: 222–227; Rowley-Conwy, 1983: 120–125).

A starting point in the discussion of the contemporary Dutch material is the observation that in this area, like in Denmark, a scatter of broad wedges indicates that from the Rössen period onwards, knowledge of pottery, arable farming and animal husbandry must have been present in the Netherlands. Recent excavations indicate that the production of pottery is indeed attested for this period, dating the start of the Swifterbant culture to around 4900 B.C. The morphology of the Swifterbant pottery seems to be somewhat similar to undecorated Rössen pots (Anscher, in prep.; Raemaekers, in prep.).

Until a few years ago, the Swifterbant sites inhabited around 4300–4000 B.C. formed the oldest known horizon of which the subsistence strategy included cereals and domestic animals. Sites like S3 and Hazendonk revealed that emmer wheat and naked barley were the most common cereal types, while the mammal bones indicate that apart from an important component of wild mammals, domestic cattle, pig and sheep/goat formed part of the diet (Casparie *et al.*, 1977: 51–53; Bakels, 1981; Zeiler, 1991). The limited differences in the mammal bone spectra from most of these sites, located in different natural environments, indicate that the logistic mobility system proposed for the Ertebølle culture may not be relevant here. A higher degree of residential mobility seems to be more plausible (Raemaekers, in prep.). Unfortunately, the ranges in ^{14}C dates prohibit the conclusion that these sites predate the mesolithic-neolithic transition in Denmark. In any case, the mesolithic-neolithic transition predates the transition from Swifterbant to the Funnel Beaker West Group in the Netherlands.

While the single pot from Bronneger, found in 1990, already indicated that the production of Swifterbant pottery started at about the same time as the production of Ertebølle pottery (Kroezenga *et al.*, 1991; Hedges *et al.*, 1992), the Hoge Vaart excavation in Flevoland made clear that bones from domestic animals are also to be expected from around 4900 B.C. onwards. This site yielded the remains of domestic cattle, while the dimensions of the pig bones preclude a categorization into 'wild' or 'domestic'. Some 90 % of the identified mammal bones is constituted by the pig bones, which suggests that this site may have functioned as a special activity site. If this explanation is followed, the absence of cereal remains is perhaps less problematic: perhaps cereals are to be found on the (as yet unknown) residential sites of this period. Of course, it is also possible that arable farming was not yet incorporated into the subsistence strategy of the people of the Swifterbant culture (Hogestijn & Peeters, 1996).

3. A DIFFERENT WORLD VIEW

The above presentation leads to the conclusion that first of all, the process of neolithisation in Denmark and the Netherlands beyond the loess has a similar starting point: the scatter of perforated wedges during the Rössen period indicates that the inhabitants of both areas had contacts with farming communities. On the basis of these attested contacts, indigenous knowledge of the techniques of arable farming and animal husbandry may be assumed. Furthermore, both areas were equally suitable for farming, because farming communities did develop at one time or the other in both areas. One could say that the conditions for the incorporation of arable farming and animal husbandry were present at

least from the Rössen period onwards. Nonetheless, two different processes of neolithisation occured in Denmark and the Netherlands (fig. 1). While the people of the Ertebølle culture did not incorporate the newly available subsistence strategies, the people of the Swifterbant culture held a different position regarding these food resources. They incorporated cattle and perhaps pigs into their subsistence strategies, while the absence of cereals in the earliest phase may well be determined by the character of the Hoge Vaart site. Apparently, the people of the Swifterbant culture were able to extend their mesolithic broad spectrum economy with these new food resources (Louwe Kooijmans, 1993: 103). Because the conditions for the incorporation of arable farming and animal husbandry were present in both Denmark and the Netherlands, this difference has to be interpreted in terms of human behaviour rather than environmental conditions or differential access to these subsistence strategies.

These differences in the process of neolithisation between Denmark and the Netherlands are not only relevant for the archaeological discourse on the process of neolithisation, they are also of importance for anthropological studies on present-day hunter-gatherer societies. It is generally believed that hunter-gatherers with a logistic mobility system, such as the people of the Ertebølle culture, are 'pre-adapted for the development of agriculture and pastoralism' (Woodburn, 1988: 57, see also Arnold, 1994), because the long-term sedentarity of these hunter-gatherers is similar to that required for arable farming. In contrast, according to the same general believe, hunter-gatherers with a residential mobility system would not easily incorporate arable farming. The archaeological case study presented here suggests that this notion is unjustified.

With the conclusion that social practice within Swifterbant and Ertebølle society determined the response to the ideas of arable farming and animal husbandry, we touch upon the issue of world view: apparently the people of the Swifterbant culture did not perceive arable farming and animal husbandry as alien ideas on man-nature relations, but as subsistence strategies which were compatible with their traditional lifestyle. The absence of cereals and bones from domestic animals on sites of the Ertebølle culture reveals that these people clearly had a different notion on domestic plants and animals. It is remarkable that the rejection of arable farming and animal husbandry by the people of the Ertebølle culture persisted for some 1400 years or over 50 generations!

The question why the mesolithic-neolithic transition in south Scandinavia did take place in the end, is probably best answered by not only considering the long-term developments in south Scandinavia during the period of the Ertebølle culture, but also the developments in the economic practices in the source areas. It may well be that the acceptance of arable farming and animal husbandry in south Scandinavia may be found in the re-structuration of the tradional neolithic economy (and society) by communities such as the people of the Swifterbant culture. In other words, the transition took place not only because of developments within the Ertebølle societies, but also as a result of the creation of a new neolithic lifestyle (Raemaekers, in prep.).

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