



Universiteit
Leiden
The Netherlands

Schipluiden and the final stage of neolithisation in the Lower Rhine Basin

Louwe Kooijmans, L.P.; Bostyn, F.; Martial, E.; Praud, I.

Citation

Louwe Kooijmans, L. P. (2011). Schipluiden and the final stage of neolithisation in the Lower Rhine Basin. *Revue Archéologique De Picardie*, 121-138. Retrieved from <https://hdl.handle.net/1887/77067>

Version: Not Applicable (or Unknown)

License: [Leiden University Non-exclusive license](#)

Downloaded from: <https://hdl.handle.net/1887/77067>

Note: To cite this publication please use the final published version (if applicable).



Revue Archéologique de Picardie

N° spécial 28 -2011

Le Néolithique du nord de la France dans son contexte européen

**Habitat et économie aux 4^e et 3^e
millénaires avant notre ère**

**Actes du 29^e Colloque interrégional
sur le Néolithique
Villeneuve d'Ascq, 2 - 3 octobre 2009**

*Sous la direction de
Francoise Bostyn, Emmanuelle Martial & Ivan Praud*

**Le Néolithique du Nord de la France
dans son contexte européen :
habitat et économie aux
4^e et 3^e millénaires avant notre ère**

*Actes du 29^e colloque interrégional sur le Néolithique
Villeneuve-d'Ascq
2-3 octobre 2009*

Textes réunis par

**Françoise BOSTYN
Emmanuelle MARTIAL
Ivan PRAUD**

À la mémoire d'Yves Lanchon

SCHIPLUIDEN AND THE FINAL STAGE OF NEOLITHISATION IN THE LOWER RHINE BASIN

Leendert P. LOUWE KOOIJMANS

THE NORTHWEST EXTENSION OF EARLY FARMING¹

The northern fringe of the loess zone has – as far as neolithisation is concerned – generally been described as a long lasting static frontier between the fully Neolithic farmers to the south of it and the Mesolithic hunter-gatherers in the vast plain to the north, also by the present author (LOUWE KOOIJMANS 2007, *et al.* 2005). The LBK expansion apparently did not extend beyond their favoured soil type and the more boreal climate may have made this zone equally less attractive. The specific LBK farming practice may moreover not have been very attractive for the hunter-gatherers, while the extensive wetlands and wide brook valleys offered excellent conditions for their traditional way of life.

This view seems, however, too simple and open for a more differentiated approach. Firstly, still farther east LBK expanded into the Oder mouth area as far north as the Baltic, but more important for the intensity of interaction is the fact that the frontier was not continuous at all in geographical and temporal respect. We factually have to do with an expansion beyond and through corridors in the German *Mittelgebirge*. This resulted in successful *Siedlungskammern* in the Göttinger Basin and in the Rhineland, where the colonisation was permanent and where LBK was succeeded by Großgartach or *Stichbandkeramik*, Rössen and Michelsberg. In between the pattern of loess as well as the early farming settlements is scattered and restricted to a relatively narrow zone, implying an equally patchy interaction with consequently a more restricted impact.

To the west the situation is more dramatic. The LBK expansion was restricted to Dutch southern Limburg and the Belgian Hesbaye, with two late and modest outliers: the Wange-Overhespen microregion close by, and far to the west the Blicquy microregion in Hainaut. These two northwesternmost LBK spearheads continued into the Blicquy stage but

then came to an end pretty soon, say between 4900 and 4800 cal BC, to be reverted into Mesolithic territory again. So it is assumed that the Mesolithic lasted for at least five more centuries all over the Belgian loess zone to the north of the Ardennes, be it only documented by a thin spread of microliths (VANMONTFORT 2007, 2008).

A renewed and more successful neolithisation took place at the end of the fifth millennium, by the Spiere group in the west and the Michelsberg culture in the east (VANMONTFORT 2004). Only by then was the Belgian loess zone for the first time fully occupied by Neolithic communities and we believe that the Mesolithic substratum played a major role in this development, either adopting the new way of life, or being absorbed in the new communities. This development is in sharp contrast to the rapid expansion of the late Bandkeramik communities to the south of the Ardennes, along the river valleys of the Paris Basin almost up to the Channel coast and the definite establishment of a farming society all over northern France almost a millennium earlier.

The neolithisation of the Lower Rhine Basin should be viewed not only in widely different natural conditions, but also in this perspective of shifting culture patterns (fig. 1).

RESEARCH CONDITIONS

Our archaeological view on the northern communities contrasts to that on those of the loess zone as a result of vast differences in taphonomy. Settlements sites with soil traces and pits fills fail almost completely on the poor sandy substrate. Organics have not been preserved, only flint scatters remain there, often multi-period palimpsests, with now and then some pottery (VERHART 2000). By consequence neolithisation in the sand regions is mainly documented by the spread of characteristic Neolithic artefact types. These are in the fifth millennium the well-known LBK adzes and the various types of heavy perforated Rössen Keile, demonstrating the intensity of southern contacts of the northern communities (VERHART in prep.). It

1 - For the sake of readability no references are made in the text to the sites listed in table I.

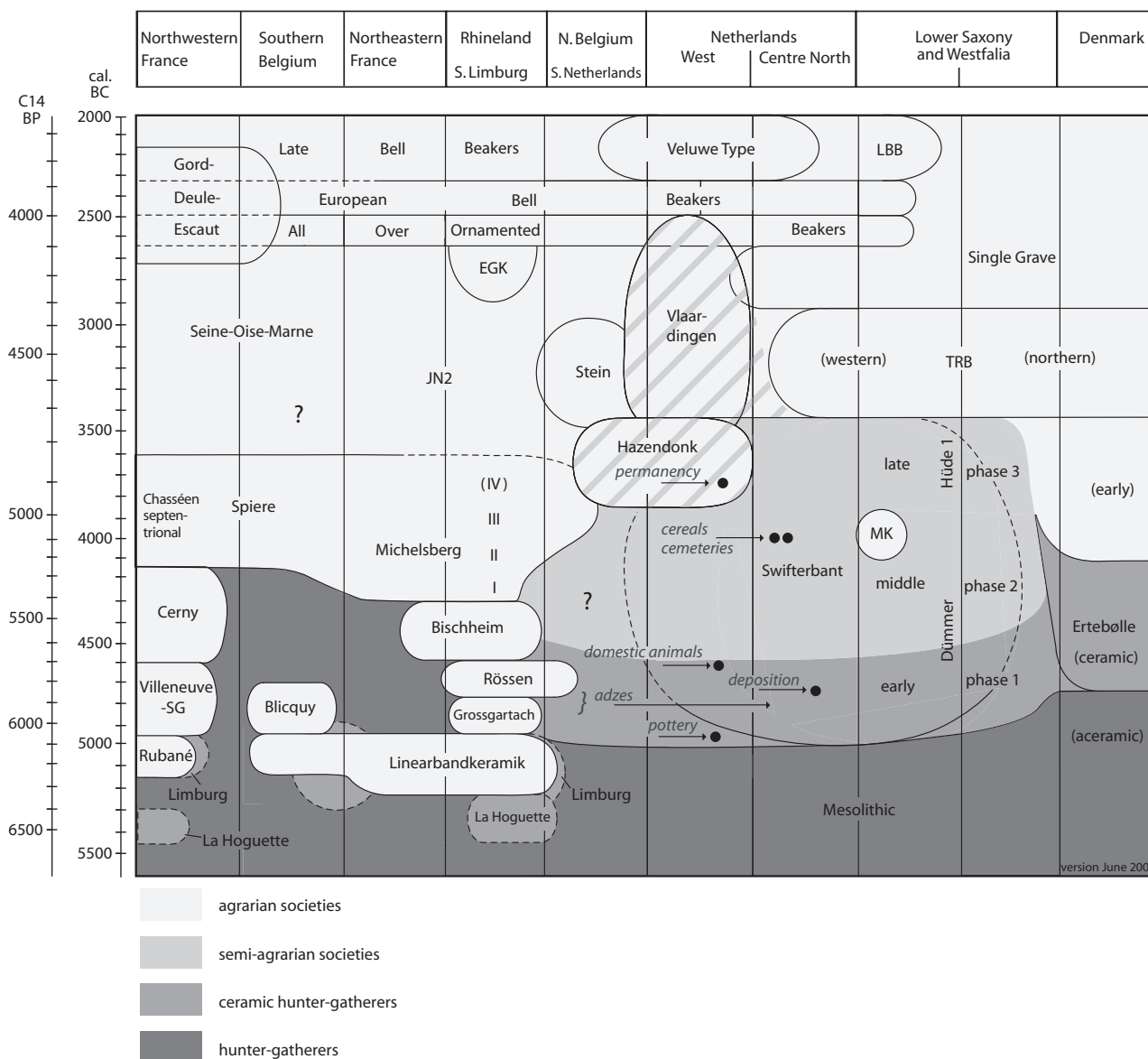


Fig. 1 - Chrono-geographical scheme of the Lower Rhine Basin and its wide surroundings, update June 2009. Dark gray: hunter-gatherers, medium gray: ceramic hunter-gatherers, light gray: semi-agrarian societies, white: agrarian societies. Stages of neolithisation in the Lower Rhine Basin added. Northwestern France = Picardie, Northeastern France - Lorraine.

surprising that these highly valued and prestigious tools could be obtained by indigenous people in the north and one may wonder what would have been the counter value offered, and which the specific character of the contacts will have been. This interesting topic is however beyond the theme of this paper. Southern 'import' connections predominate all throughout the Neolithic (*cf.* LOUWE KOIJMANS *et al.* 2005)

The main evidence is derived from the sites located in the sedimentary wetlands of the combined delta of Rhine, Meuse and Scheldt, with their richness in zoological and botanical remains, artefactual and ecological, their dating opportunities and their preserved patterns below later sediments

(fig. 2). The main research problem is, however, representativity : to what extent may we observe a typical wetland-bound way of life, contrasting to that on the 'uplands', which escapes our observation ? For economic aspects this is certainly a factor to be seriously considered, but material aspects may not have been ecology related that much.

Large scale wetland excavations of the last twenty years, documenting Late Mesolithic and Early Neolithic settlement sites (fig. 3, tab. I), are the basis to distinguish a very gradual process of successively adopting Neolithic elements by the indigenous communities and as such gradually changing their lives from what we consider « Mesolithic » to « Neolithic ». Three main stages can be made out.



Fig. 2 - Hardinxveld-Polderweg, a Late Mesolithic site on a submerged dune at 5 -10 m below sea level.

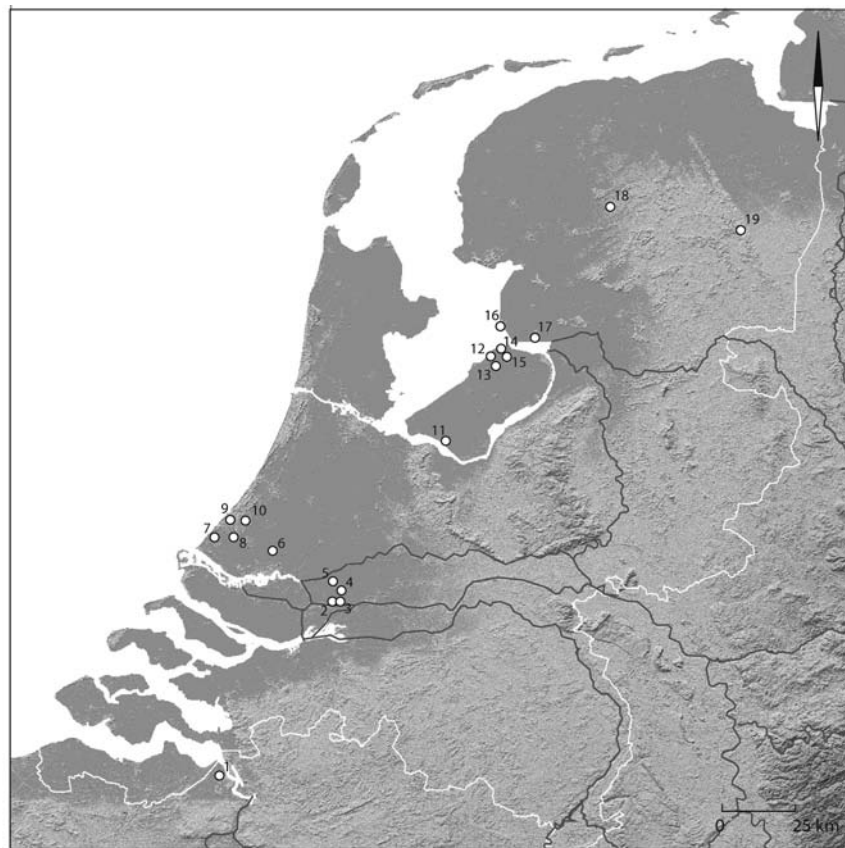


Fig. 3 - The Lower Rhine Basin with the sites listed in tab. I.

no.	site name	time range cal BC	major references
Scheldt estuary			
1	Doel-Deurgancksdok	4700-4400	Crombé <i>et al.</i> 2005
Rhine/Meuse district			
2	Hardinxveld-De Bruin	5400-4500	Louwe Kooijmans 2001b
3	Hardinxveld-Polderweg	5500-4900	Louwe Kooijmans 2001a
4	Hazendonk	4100-2500	Amkreutz <i>et al.</i> 2008; Out 2010; Zeiler 1997; Louwe Kooijmans 1987
5	Brandwijk	4500-3700	Raemaekers 1999; Out 2008
6	Bergschenhoek	4350-4100	Louwe Kooijmans 1987
7	Wateringen	3700-3400	Raemaekers <i>et al.</i> 1997
8	Schipluiden	3700-3400	Louwe Kooijmans & Jongste 2006
9	Rijswijk		Laarman 2004
10	Ypenburg	3800-3400	Koot <i>et al.</i> 2008
Central Netherlands			
11	Hoge Vaart	5400-4100	Hogestijn & Peeters 2001
12-13	Swifterbant levees	4200-4000	De Roever 2004; Raemaekers 1999
14-15	Swifterbant dunes	>5100, 4400-4000	De Roever 2004; Raemaekers 1999
16	Urk	4200-3900	Peters & Peeters 2001
17	Noordoostpolder-P14	4400-3300	Gehasse 1995; Ten Anscher in prep.
Northern Netherlands			
18	Jardinga	5300-4900	Prummel <i>et al.</i> 2002; Prummel & Niekus 2002/2003
19	Bronneger	c. 4800	Kroezenga <i>et al.</i> 1991

Tab. I - Major excavated sites 5500-3400 cal BC in the Lower Rhine Basin. For site location see fig. 3.

NEOLITHISATION IN STAGES

Far reaching contacts to the south have been established already for the Mesolithic communities of the southern Netherlands. These are demonstrated by the common microlith typology of the 'Rhine Meuse Group' with its characteristic surface retouched leaf-shaped points and the use of the unique outcrop of *grès quartzitique* near Wommersom in Belgian Limburg (GQW), continued into the Late Mesolithic. Southern contacts have been especially well established for the first phase of Hardinxveld-Polderweg, dated to 5500-5300 cal BC, shortly before the LBK reached southern Limburg. The evidence comprises a few GQW flakes and blades, a massive pre-core of Rijckholt type flint some equally large pieces of angular rock, most probably derived from the northern fringes of the Ardennes. Pieces of pyrite may have come from there as well, or from the sources near Boulogne-sur-Mer in the west. A very typical LBK asymmetric arrowhead may reflect an early direct contact around 5300 cal BC. The alternative interpretation, considering the type part of the current Late Mesolithic inventory, must be considered less likely (LOUWE KOOIJMANS 2001a, 2003 ; also DE GROOTH 2008). These contacts imply that the earliest farmers will not have been arrived unnoticed, as they equally will not have settled the northern regions unprepared (VAN DE VELDE 2008). So we may start the availability phase (according to ZVELEBIL 1986) at the very moment of the first arrival of the LBK.

PHASE 1 : MATERIAL NEOLITHISATION

Neolithisation starts with the incidental acquisition of typical LBK adzes and the adoption of pottery. Only few adzes have, however, been found outside a c. 30 km wide zone beyond the loess border, and the mechanism behind this wider distribution is still a matter of dispute by the lack of contextual evidence. There should moreover be some reserve for their value as documents for LBK contacts since adzes continued to be in use throughout the Rössen culture. The phtanite/lydite specimens, however, seem to be restricted to the LBK period and so most likely represent the initial stage - to be dated not earlier than 5000 cal BC - of the much wider and more intensive spread of the heavy perforated tools of the successive Großgartach-Rössen period. These *Keile* have a long time range of use, almost the full fifth millennium and there are hardly any Swifterbant associations, so their northward spread not necessarily starts around 4900 as generally is suggested.

The same contacts will have resulted in knowledge about the pottery in use, not only that in the LBK settlements, but also the still enigmatic la Hoguette and Limburg wares (VANMONTFORT *et al.* 2010). The earliest pottery, brought into the northern plain from the south are a few sherds of so-called *Begleitkeramik* and fragments of a pot with an impressed « sun motif », characteristic for the final stage of the LBK in the Hesbaye-Limburg

LBK and in the Blicquy group. They will have been the sources of inspiration of the first production of pottery in a distinct native style, called « Swifterbant ». It is coil-built, point-based and organic tempered. The initial stage has been well dated to 5200-5000 cal BC in Hardinxveld-Polderweg phase 2. Only a few generations later characteristic Blicquy and Großgartach pottery became mixed up with more developed Swifterbant ware at Hardinxveld-De Bruin, phase 2.

We may label this first stage 'material neolithisation', comprising the relatively easy adoption of technical novelties in the own cultural complex: heavy wood working tools in a form of direct acquisition in the male domain, pottery technology most probably more on the basis of indirect knowledge transfer in the female domain (LOUWE KOOIJMANS 2010).

PHASE 2 : ECONOMIC AND IDEOLOGICAL NEOLITHISATION

Economic

The second stage may be labelled «economic and ideological ». The economic aspect comprises the introduction of domestic animals and cereals, with as earliest document the presence of all four animal domesticates at De Bruin phase 3 : cattle, pig, goat and sheep. The phase is dated between 4800 and 4450 cal BC (2 sigma range) ; there are some arguments to date these bones rather late in this period. Domesticates are absent in the earlier phases and at other sites dating from the first half of the fifth millennium, implying the introduction in the delta environment around 4500. This is an intriguing fact, since it means an introduction well before the Michelsberg culture / Spiere group and their expansion all over the Belgian loess zone. Consequently the source must be looked for not in south-western but in south-eastern direction, the evolved Rössen communities of the Rhineland, which fits well with the contact lines as documented by the axes. This being the case we are the more aware of our restricted view on the neolithisation in the intervening sand area in between the loess zone and the Rhine/Meuse delta, which is almost devoid of Rössen evidence.

Cereal remains are completely lacking in the deposits of De Bruin phase 3, in spite of extensive testing. The earliest occurrences are Brandwijk and Swifterbant S3, with mixed domestic-wild animal spectra and dates around 4100-4000. There are even traces of a plot of artificially worked soil from this time at Swifterbant S4, be it that there is no direct evidence for the crop cultivated there. We should consider this date as a terminus ante quem for the introduction, since evidence on the intermediate period is missing until now (OUT 2009). Domestic

animals appear to precede crops at any rate, which may relate to the relative ease of the adoption of animals as compared to the cultivation of crops.

Ideological

In the same stage there is widespread evidence for new ideologically inspired practices. One is the intentional deposition of a wide range of objects from c. 4800 cal BC onward, close to settlement sites as well as off site. Most conspicuous are complete vessels, red deer antlers and aurochs horn cores (UFKES 1997 ; PRUMMEL & VAN DER SANDEN 1995), but more modest material is documented as well. Some flint assemblages have been found at Hoge Vaart and a small group of pits in the wetland margin of De Bruin phase 3 contained besides a complete pot some simple wooden and bone artefacts. Is this really a Neolithic innovation ? The explanation would in that case be that the powers attributed to the surrounding nature would have been appeased, because of the disturbing practices of chopping trees, animal husbandry and opening garden plots. But deposition precedes any agricultural practices, there are even a few options for intentional deposition of flint in the Mesolithic and there is a single Boreal ¹⁴C date of an antler bog find. We should moreover realize that the use of pots would make a deposition practice more visible. So there may be Mesolithic roots, but in that case there is at any rate a distinct intensification in the fifth millennium.

The second aspect reflecting changed attitudes is the burial of deceased members of society in cemeteries. Incidental burial of individual people has been attested for the Late Mesolithic phases of both Hardinxveld sites, but in the middle phase of the Swifterbant culture small cemeteries seem to have become general practice, with however still « Mesolithic » supine burials and no other grave gifts than some incidental beads, as attested at several sites in the central part of the Netherlands. The remarkable cemetery of Ypenburg, dated to c. 3600 cal BC, shows a further Neolithic impact, not only by its extent, but especially by the shift to a flexed burial posture (*cf.* below).

The new tradition of deposition is considered to reflect a new attitude towards the powers of the surrounding nature, related to gradually increasing interventions in the landscape. The cemeteries may reflect a more prominent and structured view on the ancestors, related to a more domestic way of life after cereal cultivation was added to the economic spectrum.

PHASE 3 : SOCIAL NEOLITHISATION

The last phase is the restructuring of the way of life, as reflected in settlement layout and settlement function and may be called « social neolithisation ». The

wetland Swifterbant sites do not differ essentially from the earlier Mesolithic sites in extension and (lack of) internal patterning. They are still not more than simple single or multiple hut sites. A major change is for the first time demonstrated around 3600 cal BC in the coastal settlements of the Hazendonk group. This cultural unit, distinguished on the basis of its original pottery style, has a restricted extent in the western and southern Netherlands (AMKREUTZ & VERHART 2006 ; LOUWE KOOIJMANS & JONGSTE 2006, p. 494). It may be considered as the southern facies of the final stage of the Swifterbant culture, developed under the influence of intensive contacts with the farmers of the final stages of the Michelsberg culture and the Spiere group, as shown by 'imported' flint tools on mined flint in Michelsberg style. It is especially a cluster of sites in the Midden Delfland district to the south of The Hague, which offers new information. At Wateringen and Ypenburg two-aisled, rectangular houses have been documented, measuring c. 4 to 9 m, indicative of a more permanent settlement layout. But most informative is the Schipluiden site, demonstrating long-term occupation over many generations and collective efforts of a small village community. The site will be discussed in some detail in the next paragraph. A remarkable aspect of this stage of neolithisation are the different trajectories chosen by local communities, even in a restricted microregion as that of Midden Delfland, which will subsequently be specified.

SCHIPLUIDEN, C. 3500 C. BC²

INTRODUCTION

The site of Schipluiden was discovered in 2001 during an archaeological prospection in advance of the construction of an extensive water purification plant and fully excavated in 2003, with the exception of the northern end, which was

2 - I refrained from references to all individual chapters in the edited multi-author site reports, which never could have been accomplished without the wide interdisciplinary cooperation of all specialists.

disturbed by a motorway (fig. 4). It was situated in the coastal district near The Hague at 3-4 m below sea level and preserved in the subsoil below several metres of later Holocene sediments, deposited as a result of the later sea level rise. The site and the synchronous deposits were dated by means of a series of stratigraphically controlled ¹⁴C dates to c. 3600-3400 cal BC.

ENVIRONMENT

A good understanding of the natural conditions is a prerequisite before presenting the site and its inhabitants. It was possible to develop a detailed view on the environment and its dynamics during the occupation, and on the subsistence of the inhabitants, thanks to the exceptional wetland conservation conditions.

The sedimentary landscape developments have been unravelled by a detailed and intensive hand augering programme. The subsoil of the site consisted of beach deposits, representing the initial stage of coastal aggradation and the seaward extension of a increasingly wider coastal plain. Low dunes have been blown up in this plain when it became closed of the sea by a coastal barrier belt, and it is on one of these dunes, not more than 1.5 m above the surroundings, that people founded their settlement. From this coastal landscape people had access to the extensive peat marshes of the intracoastal plain to the east of it and to the estuary of the river Meuse to the south.

Diatom analysis shows us a change from estuarine to fresh sedimentary conditions, be it with regular salt incursions. Pollen analysis shows the shift from a salt marsh vegetation towards an open fresh water environment with rich natural grazing and only incidental shrubs, for which the low dunes are the most likely locations. The analysis of wood and botanical macroremains not only confirms this picture, but also gives us detail on species level. Most shrubs present in the inland zone of the present day dune vegetation are documented, with juniper



Fig. 4 - Schipluiden, overview of the excavation. Note the steel cofferdam in the rear and the pumping system in the foreground, necessary in view of the excavation level at 4-3 m below sea level and the groundwater table.

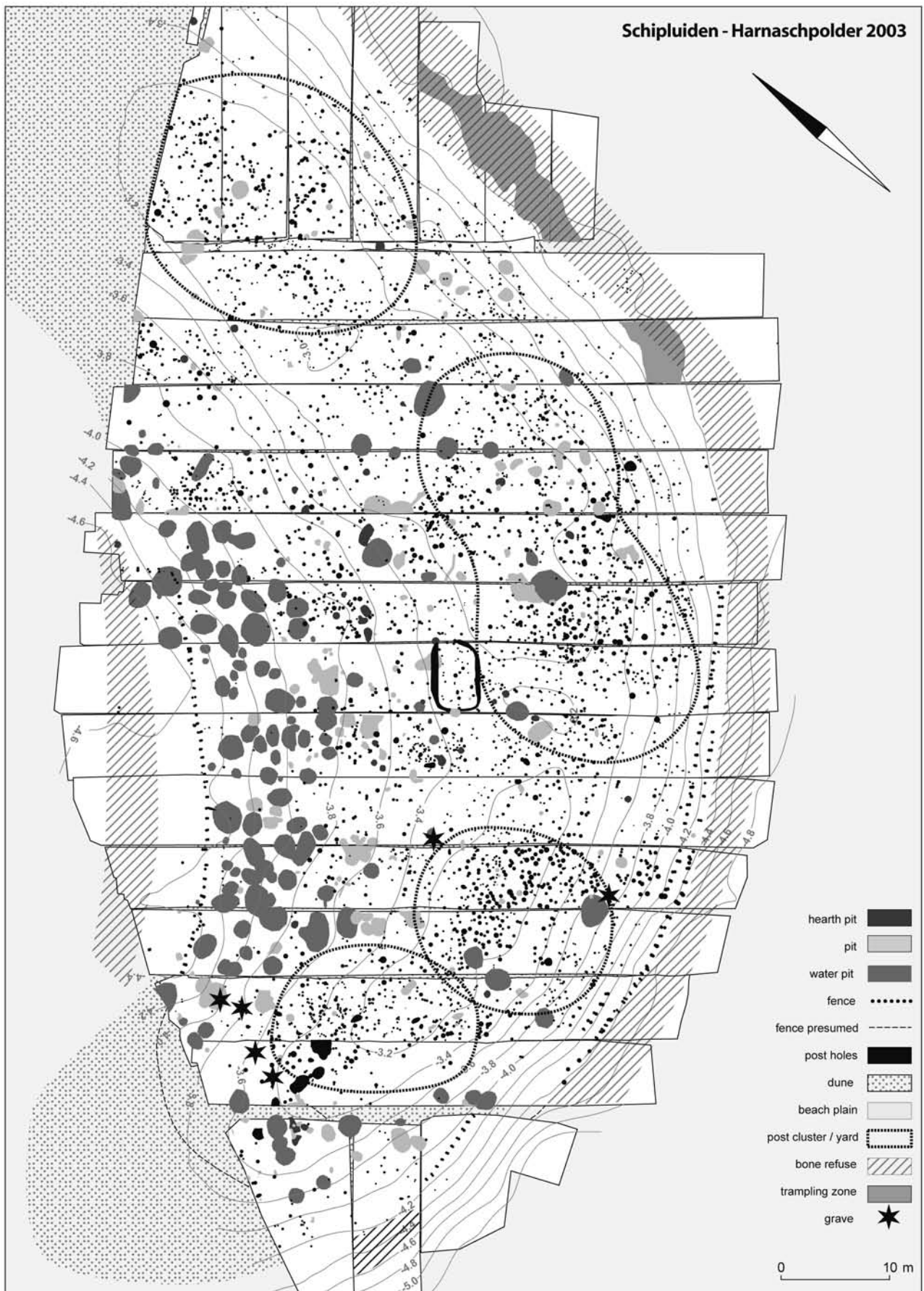


Fig. 5 - Schipluiden, site plan.

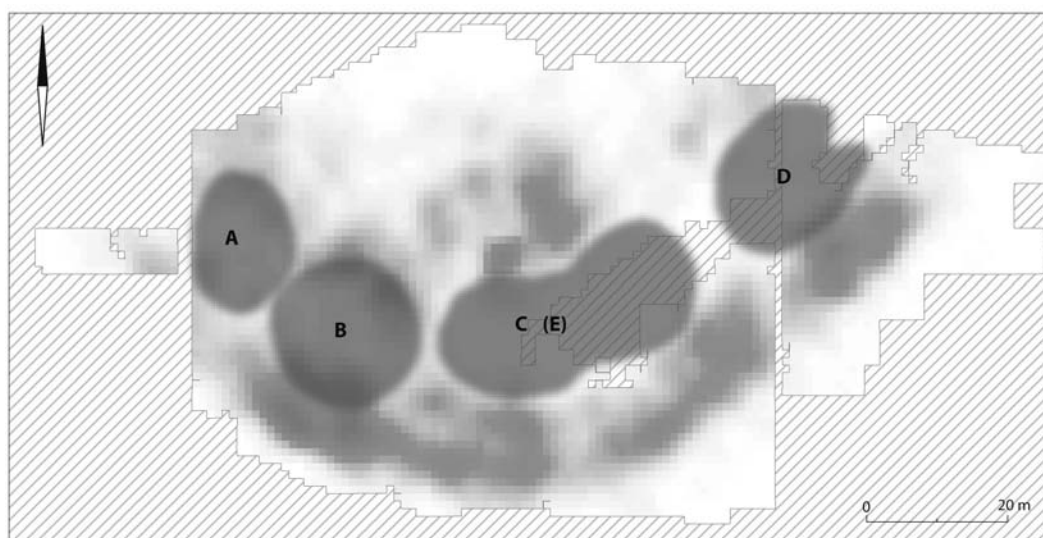


Fig. 6 - Schipluiden, spatial analysis. 7 x 7m moving averages of bone weight, calculated on the basis of 1 x 1 m collection units; added are the yards A-E, distinguished on the basis of a local density analysis of all postholes with diameters > 20 cm and deeper than 20 cm.

as an exceptional element, not anymore present nowadays. The landscape and its geography will have offered perfect conditions for the wide range of subsistence activities, as practised by the inhabitants, and - in contrast to our modern view - will have been considered as an ideal configuration.

SETTLEMENT AND ORGANISATION

The settlement occupied the full extent of the low dune, oval in layout and c. 5 500 m² in extent. The excavated area was densely filled in with features (fig. 5). Firstly, 4 120 postholes, predominantly measuring 5-15 cm in diameter, reflecting an intensive use. No house plans could however be identified, like at nearby Wateringen and Ypenburg. Four to five clusters could be made out in the distribution of the major postholes, interpreted as the reflection of yards where relatively modest structures had been rebuilt frequently, thus blurring the individual configurations (fig. 6). Only short lines of major posts could be identified, interpreted as the axes of small houses, up to eight in one cluster.

These posthole concentrations could spatially be linked with concentrations in a refuse zone along the dune's southern edge, supporting this interpretation. This refuse had been discarded where the dry dune surface changed into the wet surroundings. These were gradually silted over and at last grown over by peat, resulting in a four phase natural stratigraphy in which the refuse was embedded. The continuity of the refuse concentrations over these four phases has been interpreted as a confirmation of the presumed long-term use of the yards, to which they were connected. Altogether it was concluded that the site had been permanently occupied by four or five households, during a period of 2-3 centuries, around 3600-3400 cal BC.

Two groups of features show us that the households really formed a community and coordinated their efforts from the beginning. The first group comprises 148 short-lived pits, which must have been quickly filled up with blown in and washed in sand. They date from all phases and have been interpreted as temporary water wells, tapping the fresh water from the sand body of the dune in the case of incidental saltwater incursions. The remains of small saltwater fish (herring, smelt, stickleback) and the diatoms in their fills support this interpretation. These wells are for the greater part clustered at the north side of the settlement, just outside the dune elevation, as such to be considered as a collective special activity area. The other group are long stretches of wooden fences along the dune's edges, which originally surrounded the entire settlement (fig. 7). The fences have been repaired and replaced two or three times, and were shifted slightly up slope at these occasions, as a reaction on the gradual rise of the water level. It is clear that the construction and maintenance of these fences were a collective activity of all 4-5 households.

SUBSISTENCE

Large quantities of bones of mammals, birds and fish reflect the combination of animal husbandry (cattle and pigs only, no ovicaprids) and the exploitation of the natural resources of all ecozones mentioned above. ¹³C and ¹⁵N data (fig. 8) tell us that the aquatic resources were of equal importance as the terrestrial animals and warn us once more not to interpret the faunal spectra in a simple one to one way into economic importance (SMITS & VAN DER PLICHT 2009). Part of the signal may however be the result of grazing of pure terrestrial mammals on salt grazing, but the values of red deer and elk are pure terrestrial, indicating that we may neglect this counter argument. So, the relative scarce fish bones represent a major food resource.



Fig. 7 - Schipluiden, sectioned postholes of fence and possible reconstruction, suggested by a traditional Norwegian fence in the *Norsk Folkemuseum*, Oslo 1978.

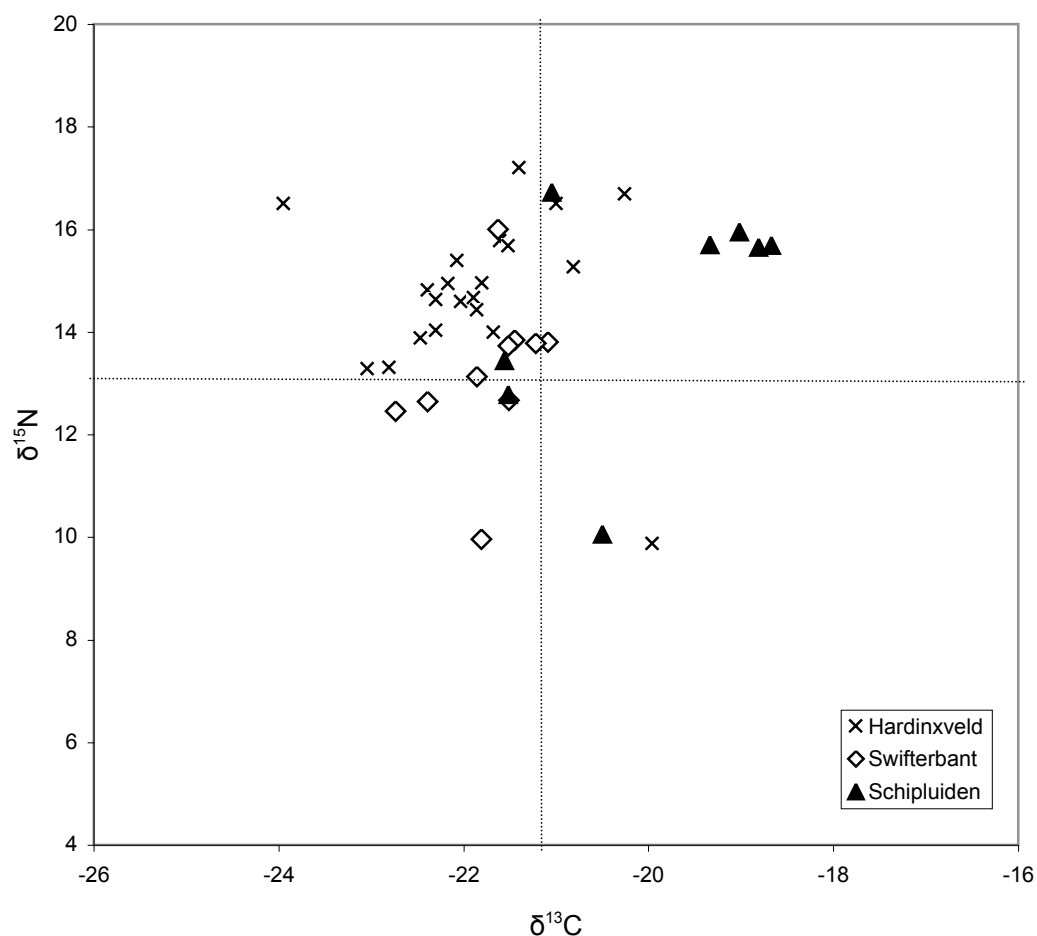


Fig. 8 - Stable isotope ratios $\delta^{15}\text{N}$ and $\delta^{13}\text{C}$ for human bones from Hardinxveld, Swifterbant and Schipluiden. The dashed line at the ^{13}C value 21 is generally considered to separate the more marine (to the right) from fresh water conditions. The line at the ^{15}N value 13 separates terrestrial (below) and aquatic diets. The aquatic contribution at all sites is apparent. Coastal Schipluiden scores more marine than the inland sites. After SMITS & VAN DER PLICHT 2009

It is remarkable that there are only few indications for the exploitation of the coastal zone itself, the beaches. The focus seems to have been mainly on the former beach plain itself and the estuary.

There has been much debate on the cultivation of cereals. The widespread occurrence of charred chaff and cereal grains all over the site, especially of naked barley, is a first, be it not decisive argument. Charred remains of salt marsh plants may in addition be considered as weeds brought in from the fields. Decisive are, however, a series of non-botanical arguments: the permanent, year round character of the settlement, the presence of sickle blades, confirmed by microwear analysis, and the fully suited environmental conditions. There is no need to view the cereals as being brought in, as in most of the other ecozones of the Rhine/Meuse delta. The fields will have been situated on other dunes in the surroundings or on the adjacent

parts of the beach plain. We should, however, not overestimate the role of cereals: berries and fruits were gathered in the surroundings, and wild tubers, onions and roots have been collected. Remains of these are generally not preserved, but a few charred specimens had been recognised as such and positively identified with the aid of SEM micrographs of the parenchymatous tissue. They will factually will have been an important food resource.

We may conclude that the subsistence of the local group had the character of an extended broad spectrum economy, in which the exploitation of a wide range of natural resources was supplemented by crop cultivation and animal husbandry. This balanced combination of 'the old' and 'the new' appears to be a distinct phase in the long neolithisation trajectory of the delta communities (fig. 9).

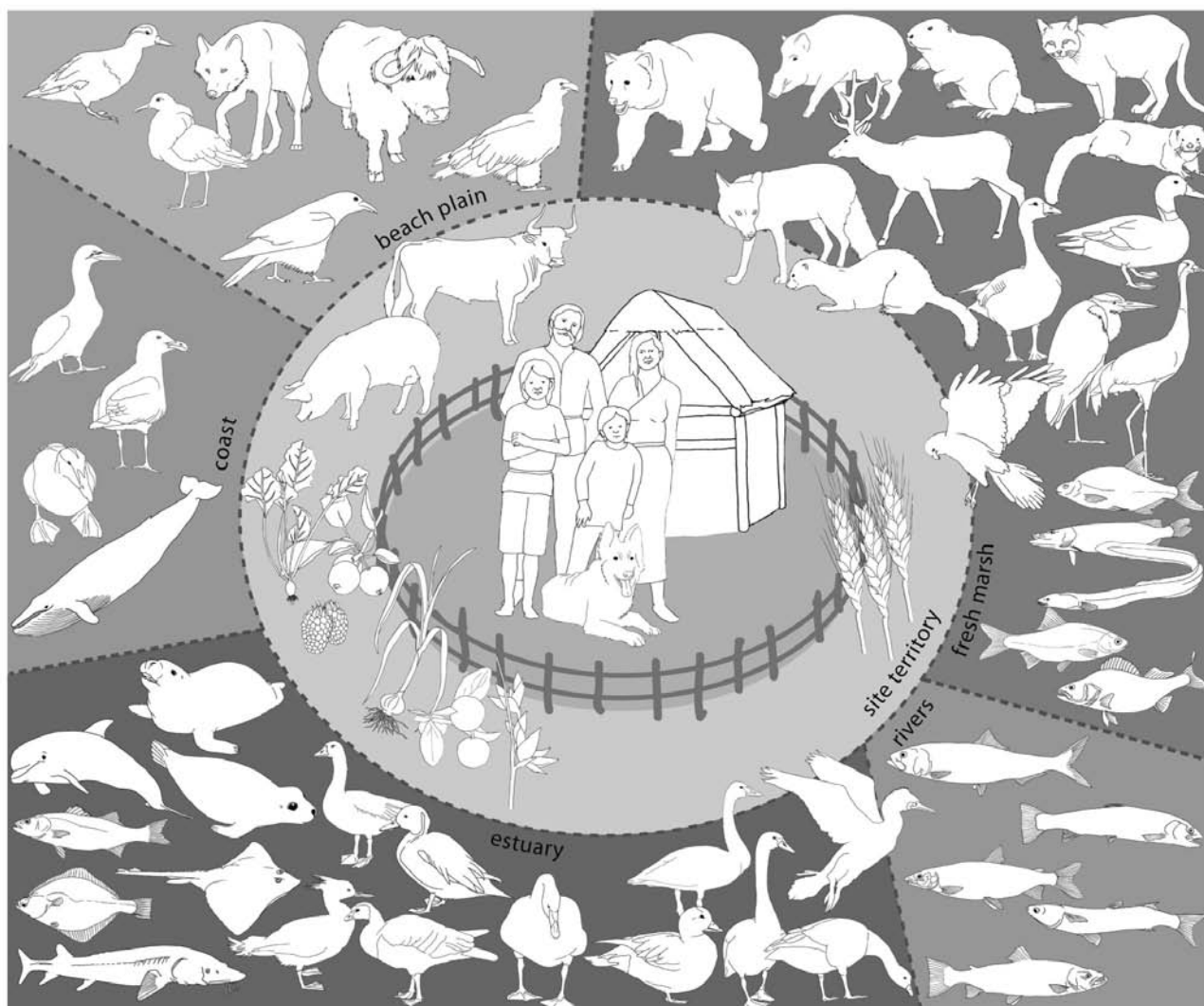


Fig. 9 - Socio-economic model of the Schipluiden community, c. 3500 cal BC, showing the diversity of resources and their spatial differentiation. Central is the fenced in settlement on the dune in the beach plain with its arable land and domestic animals. Drawing by MEDY OBERENDORFF.

CONTACTS AND INNOVATION, OLD AND NEW

The material evidence for southern contacts has been repeatedly mentioned above. It is indeed a structural aspect of the period under consideration, showing the continuity of society. The Schipluiden material demonstrates that these connections had been considerably intensified. In addition to a simple local flake industry on rolled flint pebbles, possibly collected at beaches farther to the south in the province of Zeeland, or perhaps even closer by, mined flint from several locations in the Cretaceous zone was brought in as raw material and as implements, related to the Michelsberg/Spiere repertoire. There are a small flint axe and fragments of others, pyrite nodules from Boulogne-sur-Mer (?) and jet in the form of raw material, pieces with perforations and other production waste, plus some finished and worn beads (fig. 10-11). The source of the jet has as yet not been identified. Is there any in Pas-de-Calais? Amber may have been collected locally at the beach, stone for querns and grinding stones most probably was derived from eastern sources. The southern source area reflects the origin of inspiration for all changes and innovations in this community (fig. 12). It is curious in this respect that the ^{14}C dates of the Spiere group and the Rhineland Michelsberg end exactly about the time the Hazendonk group came into existence. So factually the southern contact groups of Schipluiden cannot be better specified than the direct successors of the documented Spiere/Michelsberg and the first in the apparent gap in our knowledge after 3800 cal BC (cf. fig. 1).

Stable isotope analysis of human remains is a direct way to measure the mobility of people. A non-local origin of two out of seven individuals has been established on the basis of deviating ^{18}O



Fig. 10 - Schipluiden, strike-a-lights and a piece of pyrite, imported material from southern Belgium (Hainaut) and probably northern France (Boulogne-sur-Mer).



Fig. 11 - Schipluiden, borers made of southern flint, used to perforate jet in the production of beads, as attested by microwear analysis. The factual source of the rather low quality jet is looked for in south-western direction, but as yet not identified.

values. One person originated from an eastern (continental) direction, the other came from the (Atlantic) southwest, neatly corresponding with the material connections. Both foreigners were identified among the scattered remains, all four measured burials proved to be of locally grown up individuals (SMITS *et al.* 2010).

The treatment of the dead shows a combination of old and new. A few people - only seven of the calculated over 200 people who will have died in the course of time - were formally buried, in a (in some cases tightly) flexed posture, a Neolithic custom marking a brake with the supine Swifterbant burials (fig. 13). It reflects the adoption of a new cosmology, related to the dead. An adult man was by exception accompanied by multiple flint strike-a-lights and a piece of pyrite, which has been used as an argument to view the man as one with exceptional position in society, who had the capacity to deal with magical powers (VAN GIJN 2010, p. 126). The human scattered remains in the refuse zone, resulting from a not specified ritual of body treatment, must represent the general practice, a continuation of a custom documented at Hardinxveld-Polderweg, more than a millennium earlier.

The slaughtering of dogs and the deposition of some of their body parts in the refuse zone reminds of the special treatment of dogs at the same site. A third, non-ideological but practical « old » element are the 56 « hearth pits », always considered to be « typical Mesolithic » and related to some form of food conservation, but at Schipluiden practised far into the Neolithic. How Neolithic the site may look, the Mesolithic roots of the inhabitants are still clearly visible.

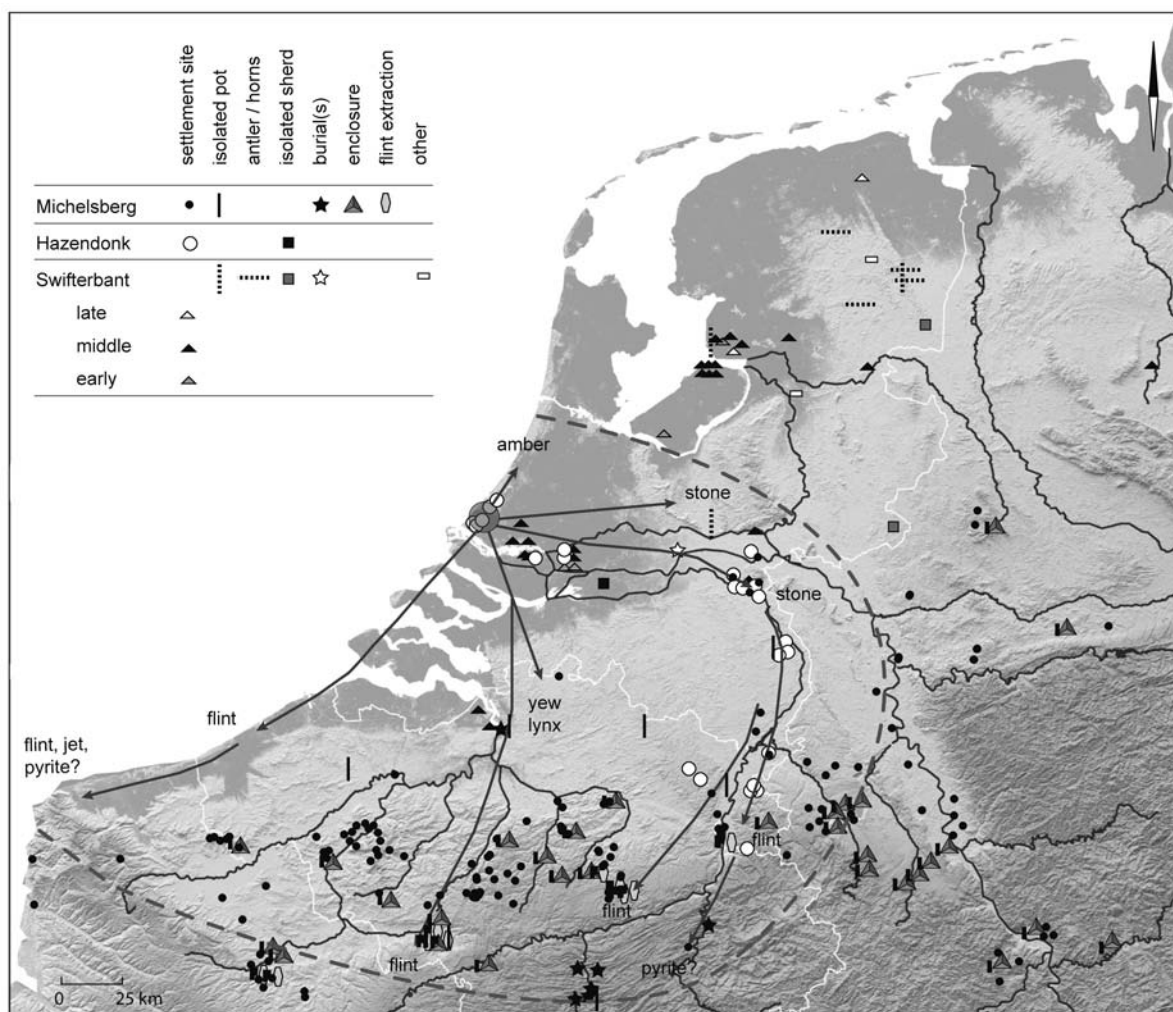


Fig. 12 - Distribution map of the phase Michelsberg-Spiere-Hazendonk in the Lower Rhine Basin, 4300-3400 cal BC, with the earlier Swifterbant sites added. Arrows indicate stone and flint connections of the coastal Hazendonk communities.



Fig. 13 - Schipluiden, tightly flexed burial no. 2 of an adult man, holding strike-a-lights and pyrite in his right hand and in front of his face (detail).



INTRAREGIONAL DIVERSITY

Schipluiden is one of a series of contemporaneous settlements, excavated in the last years, as mentioned above (fig. 15). They all belong to the Hazendonk group, are situated in the same region with very similar environmental conditions, and had fully comparable contacts with southern communities. So one may expect that the sites, belonging to the same microregional community, were similar in many respects, but that is not the case. They demonstrate that the local groups of each site had made their own choices in the course of their neolithisation (LOUWE KOOIJMANS 2009).

Wateringen is a relatively short-lived single house site on a small and low dune, lasting not more than two or three house generations. It may be viewed as one element of a group of cooperating households spread over other similar locations, but

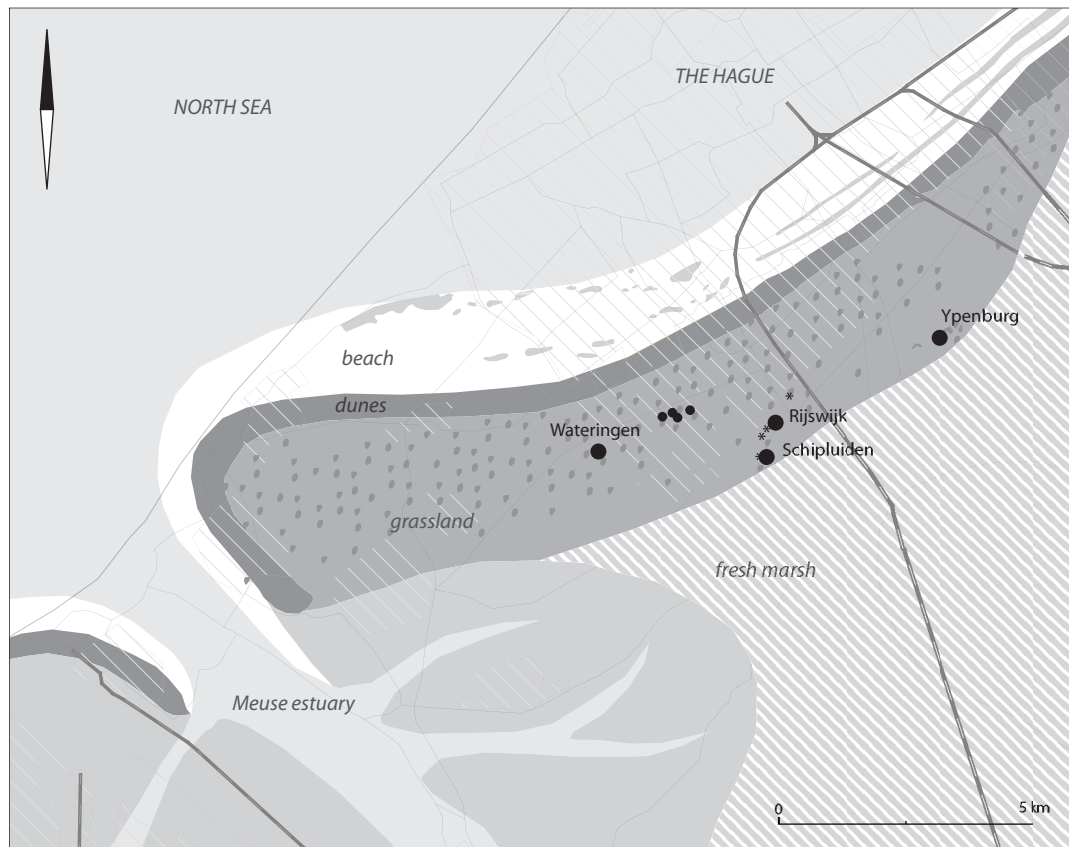


Fig. 14 - Palaeogeography of the Midden-Delfland microregion c. 3500 cal BC, with excavated Middle Neolithic sites.

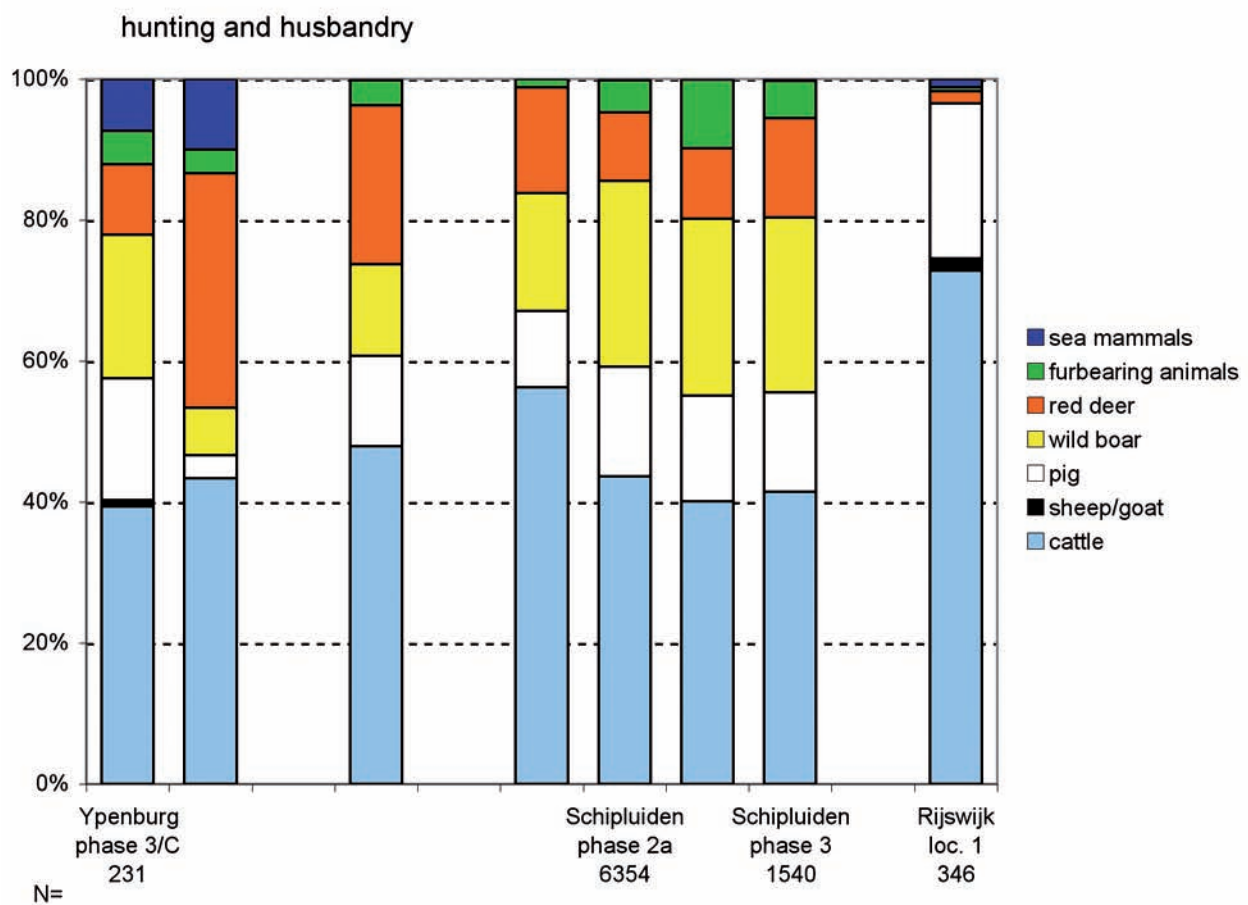


Fig. 15 - Midden-Delfland microregion, Hazendonk group, bone identifications of domestic animals and large game for four sites and their phases. Mark the fully different bone spectrum of the Rijswijk site.

any sign of collective labour is missing at any rate. Ypenburg is situated on an extensive and higher dune on which several yards have been identified, comparable to Wateringen, but much wider apart. The partial excavation of the fourth site (Rijswijk) did not offer any spatial information. We may however conclude that Schipluiden stands out as socially more advanced or « more neolithized ».

In subsistence it is in contrast the site of Rijswijk, which produced an exceptional fully agrarian faunal assemblage with 77 % cattle, 20 % pig, some sheep and 2 % game, as measured in number of identified bones. The faunal spectra of all three other sites and in all their phases are rather similar in their general composition with a contribution of 58-65 % by bones of domestic animals (fig. 14). The inhabitants of Rijswijk had chosen a distinctly different trajectory than those of the other sites, and Schipluiden appears to be not advanced at all in economic respect. In detail some differences may moreover be observed. Ypenburg shows a contribution by marine mammals, almost lacking at the other sites, Schipluiden and Wateringen show some hunt of fur animals, especially beaver and otter. In birds ducks dominate, but at Ypenburg crane, swans and geese played a distinct part as well, in contrast to the other sites. One may argue that these differences may reflect a different environment or environmental orientation for hunting and fishing activities, but even in that case different choices are attested.

In fishing the ratio between mullet, sturgeon and flatfish show distinct differences, mullet almost lacking at Schipluiden, while being the most important at Wateringen. Differences in preservation, in excavation technique and in data representation may however be substantial factors in this case.

A third field to be considered - after organisation and subsistence - is ideology, as reflected in burial and deposition practices. Ypenburg stands out by its cemetery, already mentioned, with two grave clusters, comprising 31 burials with 42 individuals. The burial ritual is rather differentiated, but crouched inhumations prevail and grave gifts are restricted to some personal ornaments, especially beads. But next to this « new » Neolithic tradition there are some « old fashioned » supine and multiple burials as well. Scattered human remains are restricted to a few bones only. While at Ypenburg formal burial seems to have been the rule for all members of the group involved, men, women and children, this was at Schipluiden restricted to a selection of a few individuals, where the old « ritual resulting in scattered remains » still was the general practice.

We may conclude that the local groups apparently were very independent in economic, ideological and social respect, as far as their choices of the

adoption of new Neolithic aspects is concerned. This may be understood from the concept of agency, which generally is associated with the practice of individuals. In this case it is extended to the small local group. We assume that at each locality a leading person had set the stage and it may be that each local group maintained its own contacts to the south.

CONCLUSION

The process of neolithisation as registered in the coastal wetlands of the Netherlands may be seen as a particular aspect of the neolithisation of the wide plain to the north of the loess zone. The favourable rich wetland resources and the restrictions wetlands pose especially on arable farming may have caused some delay in the introduction of domestic animals and cereals. There are however no indications that the process had been fundamentally different on the upland.

It appears that the early contacts with LBK and Rössen had only a restricted impact on the daily life of the Swifterbant societies in the north, although material culture was enriched, some views on nature and ancestors adopted and at last domestic animals introduced. More prominent were the contacts from the end of the fifth millennium onward, with the in many respects differently organised Neolithic communities of the loess zone, the Rhineland Michelsberg and especially its Belgian counterpart, the Spiere group. It resulted in the introduction of crops, permanent settlement, communal efforts in the domestic sphere and a new burial ritual.

The Delfland sites, and the site of Schipluiden in particular, represent the start of this final stage. It is the first truly permanent settlement documented, but still showing Mesolithic roots. It was founded on a strategic site location in between ecozones with a widely different potential, well chosen as a permanent basis for an economy in which the traditional broad spectrum exploitation was extended with the new crop farming and animal husbandry. This way of living together on a year round basis for many generations resulted in a social restructuring of the local community towards a greater collectiveness and structural cooperation of the individual households.

Intra-regional differentiation in the final implementation of a « fully Neolithic » way of life reflects a society in which decisions were made on a very low, local level. It seems that the long distance contacts were maintained on this local basis. It still is not the final stage of neolithisation, which was even not yet completed in the subsequent Vlaardingen group.

The sequence of neolithisation in the Lower Rhine Basin shows marked differences in

comparison to the western Baltic, where a similar north-south interaction triggered the Meso-Neo transition: developments are more gradual and earlier. Pottery and domestic animals start 4 and 5 centuries earlier respectively, intentional deposition of pots even 8 centuries, introduction of cereals is however almost synchronous. Everything happens in the west, moreover, within the Swifterbant context. The 'Neolithic package' was introduced gradually and there is no marked culture change as in the Ertebølle-TRB succession (e.g. HARTZ *et al.* 2007 ; FISCHER 2002).

This sequence of adoptions and societal changes in the Lower Rhine Basin is just one piece of the mosaic of cultural interaction processes of which the neolithisation of the European subcontinent was made up. This specific case stands however out by its graduality, its phasing and long time span. There is matter of the transfer of a « Neolithic package », the substitution phase is not short (*contra* ZVELEBIL 1986), economy precedes social change (*contra* THOMAS 1999) and HODDER's (1990) idea of a modern mentality creating a modern domestic world may fit the LBK-Mesolithic contrast, but not the Swifterbant-Hazendonk case. It seems that mental change took a considerable time and was more the outcome than the precondition of changes in other spheres of society. So the typical Dutch data are food for further theoretical thought.

BIBLIOGRAPHY

- AMKREUTZ Luc, VERHART Leo & WANSLEEBEN Milco (2008) - « Hazendonk layers over and over again », *Analecta Praehistorica Leidensia* 40, p. 139-151.
- AMKREUTZ Luc & VERHART Leo (2006) - « De Hazendonkgroep en het midden-neolithicum van Limburg », *Archeologie in Limburg* 104, p. 10-17.
- CROMBÉ Philippe ed. (2005) - *The last hunter-gatherer-fishermen in Sandy Flanders (NW Belgium). The Verrebroek and Doel excavation projects (vol. 1)*, Gent (Archaeological Reports Ghent University 3), 334 p.
- DE GROOTH Marjorie (2008) - « Points of contact. Reflections on Bandkeramik-Mesolithic interactions west of the Rhine », *Analecta Praehistorica Leidensia* 40, p. 215-234.
- DE ROEVER Jutta Pauline (2004) - *Swifterbant-aardewerk. Een analyse van de neolithische nederzettingen bij Swifterbant, 5^e millennium voor Christus*, PhD thesis, Groningen University, 201 p.
- FISCHER Anders (2002) - « Food for feasting ? An evaluation of explanations of the neolithisation of Denmark and southern Sweden » in FISCHER Anders & KRISTANSEN Kristian (eds) - *The Neolithisation of Denmark. 150 years of debate*, Sheffield, p. 343-393.
- GEHASSE Elisabeth F. (1995) - *Ecologisch-archeologisch onderzoek van het Neolithicum en de Vroege Bronstijd in de Noordoostpolder met de nadruk op vindplaats P14*, PhD thesis, Amsterdam University, 298 p.
- HARTZ, Sönke, LÜBKE Harald & TERBERGER Thomas (2007) - « From fish and seal to sheep and cattle: new research into the process of neolithisation in northern Germany » in WHITTLE Alasdair & CUMMINGS Vicky (eds) - *Going over: the Mesolithic-Neolithic transition in north-west Europe*, London (Proceedings British Academy 144), p. 565-592.
- HODDER Ian (1990) - *The domestication of Europe - structure and contingency in Neolithic societies*, Basil Blackwell, Cambridge, 331 p.
- HOGESTIJN, J.W.H. & PEETERS, J.H.M. eds (2001) - *De mesolithische en vroeg-neolithische vindplaats Hoge Vaart-A27 (Flevoland)*, Amersfoort (Rapportage Archeologische Monumentenzorg 790), 20 fascicles.
- KOOT Hans, BRUNING Lauren. & HOUKES Rob eds (2008) - *Ypenburg-locatie 4, een nederzetting met grafveld uit het midden-neolithicum in het West-Nederlandse kustgebied*, Leiden, 498 p.
- KROEZENGA P., LANTING J.N., KOSTER R.J., PRUMMEL W. & DE ROEVER J.P. (1991) - « Vondsten van de Swifterbantcultuur uit het Voorste Diep bij Bronneger (Dr.) » *Paleo-aktueel* 2, p. 32-36.
- LAARMAN Frits (2004) - « Rijksweg A4 » in DE VRIES Lisette - *Luilekkerland aan de kust, de neolithische nederzetting bij Rijswijk-Ypenburg*, Amersfoort (Rapportage Archeologische Monumentenzorg 106, p. 53-56.
- LOUWE KOOIJMANS Leendert (1987) - « Neolithic settlement and subsistence in the wetlands of the Rhine / Meuse delta of the Netherlands » in COLES John & LAWSON Andrew (eds.) - *European wetlands in prehistory*, Oxford, p. 227-251.
- LOUWE KOOIJMANS Leendert ed. (2001a) - *Hardinxveld-Giessendam, Polderweg. Een jachtkamp uit het Laat-Mesolithicum, 5500-5000 v. Chr.*, Amersfoort (Rapportage Archeologische Monumentenzorg 83), 488 p.
- LOUWE KOOIJMANS Leendert P. ed. (2001b) - *Hardinxveld-Giessendam, De Bruin. Een jachtkamp uit het Laat-Mesolithicum en het begin van de Swifterbant-cultuur, 5500-4450 v. Chr.*, Amersfoort (Rapportage Archeologische Monumentenzorg 85), 550 p.
- LOUWE KOOIJMANS Leendert P. (2003) - « The Hardinxveld sites in the Rhine/Meuse delta, 5500-4450 cal BC » in LARSSON, H. KINDGREN, K. KNUTSSON, D. LOEFFLER & ÅKERLUND, A. (eds) - *Mesolithic on the move. Papers presented at the Sixth International Conference on the Mesolithic in Europe*, Stockholm 2000, Oxbow, Oxford, p. 608-624.
- LOUWE KOOIJMANS Leendert P. (2007) - « The gradual transition to farming in the Lower Rhine Basin » in WHITTLE Alasdair & CUMMINGS Vicky (eds) - *Going over : the Mesolithic-Neolithic transition in north-west Europe*, London (Proceedings British Academy 144), p. 287-309.
- LOUWE KOOIJMANS Leendert P. (2009) - « The agency factor in the process of Neolithisation - a Dutch case study », *Journal of Archaeology in the Low Countries* 1-1, p. 27-54.
- LOUWE KOOIJMANS Leendert P. (2010) - « The ceramisation of the Low Countries, seen as result of gender-specific processes of communication » in VANMONTFORT Bart, LOUWE KOOIJMANS Leendert, AMKREUTZ Luc & VERHART Leo eds (2010) - *Pots*,

farmers and foragers. How pottery traditions shed a light on social interaction in the earliest Neolithic of the Lower Rhine Area, Leiden (Archaeological Studies Leiden University 20).

LOUWE KOOIJMANS Leendert, VAN DEN BROEKE Peter, FOKKENS Harry & VAN GIJN Annelou eds (2005) - *The Netherlands in Prehistory*, Amsterdam University Press, Amsterdam, 844 p.

LOUWE KOOIJMANS Leendert & JONGSTE Peter eds (2006) - *Schipluiden, a Neolithic settlement on the Dutch North Sea coast, 3600-3400 cal BC*, Leiden (Analecta Praehistorica Leidensia 37/38), 516 p.

OUT Welmoed (2008) - « Neolithisation at the site Brandwijk-Kerkhof, the Netherlands: natural vegetation, human impact and plant food subsistence », *Vegetation History and Archaeobotany* 17, p. 25-39.

OUT Welmoed (2009) - *Sowing the seed. Human impact and plant subsistence in Dutch wetlands during the Late Mesolithic and Early and Middle Neolithic, 5500-3400 cal BC*, PhD thesis Leiden, 499 & 272 p.

OUT Welmoed (2010) - « Integrated archaeobotanical analysis: human impact at the Dutch Neolithic wetland site the Hazendonk », *Journal of Archaeological Science* 37, p.1521-1531.

PETERS F.J.C. & PEETERS J.H.M. (2001) - *De opgraving van de mesolithische en neolithische vindplaats Urk-E4 (Domineesweg, gemeente Urk)*, Amersfoort (Rapportage Archeologische Monumentenzorg 93), 146 p.

PRUMMEL Wietske, NIEKUS Marcel, VAN GIJN Annelou & CAPPERS René (2002) - « A Late Mesolithic kill site of aurochs at Jardinga, the Netherlands », *Antiquity* 76, p. 413-424.

PRUMMEL Wietske & VAN DER SANDEN Wijnand (1995) - « Runderhoorns uit de Drentse venen », *Nieuwe Drentse Volksalmanak* 112, p. 84-131.

PRUMMEL Wietske & NIEKUS Marcel (2002/2003) - « De laatmesolithische vindplaats Jardinga : de opgravingen in 2002 en 2003 », *Paleo-aktueel* 14/15, p. 31-36.

RAEMAEKERS Daan (1999) - *The articulation of a 'New Neolithic'. The meaning of the Swifterbant culture for the process of neolithisation in the western part of the North European Plain (4900-3400 BC)*, PhD thesis Leiden, 224 p.

RAEMAEKERS D.C.M., BAKELS C.C., BEERENHOUT B., VAN GIJN A.L., HÄNNINEN K., MOLENAAR S., PAALMAN D., VERBRUGGEN M. & VERMEEREN C. (1997) - « Wateringen 4: a coastal settlement of the Middle Neolithic Hazendonk 3 group », *Analecta Praehistorica Leidensia* 29, p. 143-191.

SMITS Liesbeth & VAN DER PLICHT Hans (2009) - « Mesolithic and Neolithic human remains in the Netherlands: physical anthropological and stable isotope investigations », *Journal of Archaeology in the Low Countries* 1-1, p. 55-85.

SMITS Elisabeth, MILLER Andrew R, NOWELL Geoff & PEARSON D. Graham (2010) - « Isotopic investigation of diet and residential mobility in the Neolithic of the Lower Rhine Basin », *European Journal of Archaeology* 13.1, p. 5-31.

TEN ANSCHER, Theo (in prep.) - *Leven met de Overijsselse Vecht. De vindplaats P14 en de Noordoostpolder in het Neolithicum en de Bronstijd*, PhD thesis Amsterdam.

THOMAS Julian (1999) - *Understanding the Neolithic*, Routledge, London / New York, 266 p.

UFKES A. (1997) - « Edelhertgeweiden uit natte context in Drenthe », *Nieuwe Drentse Volksalmanak* 114, p. 142-170.

VAN DE VELDE Pieter (2008) - « The foam that flies ahead of a wave of advance: thoughts on the early neolithisation of the Lower Rhine Area », *Analecta Praehistorica Leidensia* 40, p. 99-110.

VAN GIJN Annelou (2010) - *Flint in focus. Lithic biographies in the Neolithic and Bronze Age*, Sidestone Press, Leiden, 288 p.

VANMONTFORT Bart (2004) - *Converging worlds. The neolithisation of the Scheldt basin during the late fifth and early forth millennium cal BC*, PhD thesis Leuven, 391 p.

VANMONTFORT Bart (2007) - « Bridging the gap. The Meso-Neo transition in a frontier zone » *Documenta Praehistorica* 34, p. 105-118.

VANMONTFORT Bart (2008) - « Forager-farmer connections in an 'unoccupied' land. First contact on the western edge of LBK territory », *Journal of Anthropological Archaeology* 27, p. 149-160.

VANMONTFORT Bart, LOUWE KOOIJMANS Leendert, AMKREUTZ Luc & VERHART Leo eds (2010) - *Pots, farmers and foragers. How pottery traditions shed a light on social interaction in the earliest Neolithic of the Lower Rhine Area*, Leiden (Archaeological Studies Leiden University 20).

VERHART Leo (2000) - *Times fade away. The neolithization of the southern Netherlands in an anthropological perspective*, PhD thesis Leiden 252 p.

VERHART Leo B.M. (in prep.) - « Adzes, axes and picks: the transition from Mesolithic to Neolithic in the Lower Rhine Basin », *Journal of Archaeology in the Low Countries* 2-2.

ZEILER, Jørn (1997) - *Hunting, fowling and stock-breeding at Neolithic sites in the Western and Central Netherlands*, PhD thesis Groningen 221 p.

ZVELEBIL Marek (1986) - « Mesolithic prelude and the Neolithic revolution » in ZVELEBIL Marek ed. - *Hunters in transition. Mesolithic societies of temperate Europe and their transition to farming*, Cambridge University Press, Cambridge, p. 5-15.

L'auteur

Leendert P. LOUWE KOOIJMANS
Het Jachthuis, Imbosch 5,
6961 LJ Eerbeek
Netherlands
louwekooijmans@planet.nl

Résumé

Schipluiden et la fin de la néolithisation dans le Basin Rhénan Inférieur

La néolithisation aux Pays Bas

Notre compréhension du processus de la néolithisation dans la partie occidentale de la plaine de l'Europe septentrionale - entre Flandres et l'Elbe - est fondée essentiellement sur la richesse de l'information des sites d'habitation préservés dans les sédiments à l'embouchure du delta du Rhin et de la Meuse. Ce *wetland bias* peut être considéré comme un handicap, mais c'est aussi une bénédiction, vu que dans les régions sableuses rarement plus que le matériel lithique est préservé.

Il est néanmoins clair sur base de ces données que la néolithisation est caractérisée par :

- 1) une frontière statique de longue durée exactement le long du bord septentrional du loess, avec les peuples agriculteurs néolithiques d'un côté et les chasseurs-cueilleurs de l'autre.
- 2) des contacts réguliers dès le début, mais sans effets observables chez les communautés néolithiques.
- 3) une adoption très graduelle des éléments néolithiques par les chasseurs-pêcheurs-cueilleurs. On peut distinguer quatre phases :

- 1) une néolithisation matérielle à partir de c. 5000 cal BC, commençant avec l'acquisition des herminettes rubanées et la production de poterie indigène de type Swifterbant,
- 2/3) une néolithisation idéologique et économique avec
 - des dépôts intentionnels culturels et l'introduction des animaux domestiques à partir de c. 4600 cal BC,
 - des nécropoles modestes et l'introduction des plantes cultivées à partir de c. 4200 cal BC,
- 4) une néolithisation sociale à partir de c. 3600 cal BC avec des maisons rectangulaires construites en bois, des réalisations collectives et l'aménagement des espaces domestiques.

Ce ne sont pas les populations Rubané et ses leurs successeurs (Blicquy et Rössen) qui ont eu un impact déterminant sur les populations mésolithiques mais le Michelsberg de la Rhénanie et le Groupe de Spiere, vers la fin du IV^e millénaire.

Schipluiden

Le site de Schipluiden est situé dans la région côtière de la Hollande, près de La Haye. L'occupation est attribuable au Groupe de Hazendonk, et est datée de 3600-3300 avant JC. Ce groupe trouve son origine dans le secteur méridional de la culture de Swifterbant et avait des contacts plus intensifs avec les agriculteurs. La communauté de Schipluiden se composait de 4-5 ménages qui s'étaient établis de manière permanente sur une dune peu élevée au milieu d'un riche pâturage naturel. Ils pratiquaient une vraie économie semi-agraire, en combinant la tradition ancienne de l'exploitation des écozones différentes avec l'élevage et la culture des céréales ou, proprement dite, une *extended broad spectrum economy*. L'importance des ressources aquatiques est attestée clairement par les valeurs $\delta^{13}\text{C}$ et $\delta^{15}\text{N}$. La situation du site était aussi stratégique pour l'exploitation de l'estuaire du Rhin et de la Meuse et les marais de la plaine deltaïque. Nous observons cette combinaison d'éléments « archaïques » mésolithiques avec les nouveautés néolithiques aussi dans d'autres facettes culturelles : des ossements humains dispersés dans des zones de déchets face à des sépultures fléchies, des foyers creusés dans le sol de type mésolithique en contraste avec un espace collectif pour assurer de l'eau fraîche par des puits d'eau et l'enceinte de l'habitat entière avec un treillage, qui était reconstruit deux fois.

Diversité intrarégionale

Trois autres sites de la même période ont été fouillés récemment. Ils montrent des différences remarquables. L'un (Rijswijk) est complètement agraire, un autre (Wateringen) est un site avec une seule maison et de durée restreinte, le troisième (Ypenburg) est très étendu avec des centres d'occupation séparés en combinaison avec un cimetière de 35 inhumations. Il existait apparemment une grande indépendance au niveau du groupe local en l'adoption des éléments néolithiques, aussi bien dans le domaine économique et l'organisation de l'espace que dans la pratique funéraire. Tout ceci peut s'expliquer par la notion d'*agency* au niveau du groupe local.

Conclusion

Le processus de néolithisation dans l'ouest de la Plaine boréale est extrêmement original dans la perspective européenne en raison de sa longue durée et de sa succession en phases distinctes. Le Néolithique dans cette région n'est pas initié par une motivation sociale : l'aspect matériel précède les aspects économiques et idéologiques. Le site de Schipluiden se situe au moment crucial où le « paquet néolithique » est complété par des aspects de l'organisation sociale, mais sans avoir totalement renoncé aux caractéristiques de la vie traditionnelle mésolithique. Les conditions de préservation parfaites des marais deltaïques nous permettent d'avoir une vue sur la différenciation à l'échelle microrégionale des processus d'interaction entre agriculteurs et chasseurs-pêcheurs-cueilleurs, qui apparemment entretenaient des contacts au niveau du groupe local.

Mots-clefs : Néolithisation, Bassin du Bas-Rhin, Schipluiden.

Abstract

The rich evidence derived from excavations in the wetlands of the Rhine/Meuse delta has revealed that the neolithisation of the Lower Rhine Basin, to the north of the loess, was a long lasting and phased process. Between 5300 and 3400 cal BC three main phases can be identified, characterised here as a material, an economic/ideological and a social stage. Schipluiden represents the start of the last stage, in which a local community of several households settled permanently for many generations at one place, while fences and an extensive cluster of short lived wells demonstrate collective activities of the entire local group. In subsistence and mode of life the best of the « old » and the « new » were combined. Inspiration came from the south, from the Spiere and Michelsberg communities. Microregional divergent trajectories in neolithisation are seen as reflecting variation in agency on a local level.

Keywords : Neolithisation, Lower Rhine Basin, Schipluiden, agency.

Zusammenfassung

Der Neolithisierungsprozess im Westen der borealen Ebene ist aus europäischer Sicht aufgrund seiner langen Dauer und der Einteilung in deutlich unterschiedene Phasen überaus originell. Das Neolithikum beruht in dieser Region nicht auf einer sozialen Motivierung:

Der materielle Aspekt geht den ökonomischen und ideologischen Aspekten voraus. Der Fundplatz Schipluiden ist in diesem entscheidenden Moment besiedelt, als das „neolithische Paket“ durch die Aspekte der sozialen Organisation ergänzt wird, ohne dass die Eigenschaften des traditionellen mesolithischen Lebens deshalb vollkommen aufgegeben worden wären. Die perfekten Erhaltungsbedingungen im sumpfigen Flussdelta vermitteln auf mikrorégionaler Ebene einen Einblick in die Differenzierung der interaktiven Prozesse zwischen Bauern und Jägern-Fischern-Sammlern, die auf lokaler Ebene anscheinend Kontakte zueinander unterhielten.

Schlagwörter : Neolithisierung, niederrheinisches Becken, Schipluiden.

Traduction : Isa ODENHARDT-DONVEZ (donvezservit@wanadoo.fr).



Le 29^e colloque interrégional sur le Néolithique, organisé à l'initiative de l'association Internéo, s'est déroulé à Villeneuve-d'Ascq (Nord, France) les 2 et 3 octobre 2009. Cette édition offrait l'opportunité de dresser un premier bilan de la documentation archéologique sur le Néolithique en Nord-Pas-de-Calais, considérablement enrichie au cours des dix dernières années. Les sites d'habitat des 4^e et 3^e millénaires avant notre ère, attribués au Néolithique moyen et au Néolithique final, sont ainsi considérés dans un contexte chrono-culturel et géographique élargi au Nord-Ouest de l'Europe.

Les actes de ce colloque rassemblent trente-quatre contributions (dont quatre en anglais) rédigées par cent-quatre auteurs, consacrées au thème : « Le Néolithique du nord de la France dans son contexte européen : habitat et économie aux 4^e et 3^e millénaires avant notre ère », ainsi qu'à l'actualité de la recherche sur le Néolithique.

The 29th Interregional Conference on the Neolithic, organized on the initiative of the Interneo-association, held at Villeneuve-d'Ascq (Nord, France) on 2nd and 3rd October 2009. This edition offered the opportunity to assess the archaeological documentation on the Neolithic in Nord-Pas-de-Calais, considerably enriched during the last ten years. The settlement sites of 4th and 3rd millennia BC, attributed to the Middle Neolithic and to the Late Neolithic, are considered within the broader cultural and geographical context of north-western Europe.

The proceedings of this conference gather thirty four contributions (among which four in English) drafted by a hundred and four authors, dedicated to the theme: " The Neolithic of the North of France in its European context: settlement and economy in 4th and 3rd millennia BC", as well as to the current events of the Neolithic research.

49 €

