

Raversijde: a late medieval fishermen’s village along the Flemish coast (Belgium, Province of West-Flanders, Municipality of Ostend)

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Since the spring of 1992, a team of the Institute of the Archaeological Heritage (IAP) of the Flemish Community working in close collaboration with the Flemish Employment and Vocational Training Service (VDAB) and with the Provincial Government of West-Flanders has been carrying out archaeological excavations at Raversijde. The excavation site is partly located in the Provincial Domain of Raversijde and yielded remains of a late medieval fishermen’s village known in historical sources as ‘Walraversijde’.

So far some 3/4 of a hectare of this medieval settlement has been investigated, revealing the ground-plan of about twenty houses with their associated infrastructure and a variety of mobile artefacts.

The contribution by Dries Tys (see elsewhere in the present volume), concerning among other things the historical and environmental setting of the area, is referred to and used as a starting point for the archaeological exploration of the 15th-century habitation zone under excavation behind the so-called *Gravejansdijk*, a 15th-century dike (Fig. 1).

After a brief and mainly geophysical analysis of the environment of the site, the different types of archaeological structures will be described and commented on. In a next paragraph the material culture of the inhabitants is briefly looked at together with a screening of the different categories of organic finds and their interpretative possibilities. Finally, in a last paragraph, a synthesis of the presently available information is made in order to highlight the specific nature of the settlement and to outline future research.

Environmental setting

The excavations are located in a relatively flat polder area, 3 to 4 m above sea-level. Today, the site is separated from the sea by dune-belt culminating locally at an altitude of 20 m above sea-level and about 100 m wide at its base. A massive, 3 m high and at least 20 m wide man-made clay-accumulation situated just landwards of the actual dunes,

constitutes the body of a late medieval dike. The initiative for the lay-out of this dike is said to have come from John the Fearless, Duke of Burgundy (1405-1419).

The dike formerly marked very sharply the transition to the low-lying polder area. Since post-medieval times, however, important amounts of wind-blown sand have been deposited on a 50 to 60 m wide strip running parallel to the dunes, thus levelling out the transition from dunes to polder. Close to the dunes, this sandy layer – which is devoid of medieval structures and tapers out away from the dunes – can reach a thickness of about 1 m. At a distance of about 100 m from the dunes, the sandy top-layer is completely assimilated into the actual plough-layer.

The upper part of the polder soil is generally heavily clayey. These clays can fairly well be used to produce bricks. Their CaCO₃-content gives rise to the variable but mostly yellowish colours of these typical ‘polder-bricks’. Furthermore, as saline peat is used as fuel, spontaneous glazing occurs frequently in the kiln and gives some bricks a partially greenish glazed outlook.

More sand-containing deposits are met at a depth of 1 to 1.5 m. In turn, these deposits cover strongly stratified clayey deposits, constitute the most easily and regularly available source of drinking-water within the habitation zone. Furthermore, a 1 m thick peat-layer is present at a depth of 2 to 2,5 m (Fig. 2). This important source of fossil fuel, already partly exploited in the Roman period, has been thoroughly exploited in medieval and post-medieval times. The peat-digging played a very important role in shaping the landscape and explains several characteristics of the present-day topography.

Before being inhabited, the investigated zone was used for agricultural activities. A buried plough-layer is encountered systematically underneath the buildings. Close to the dunes, evidence for a phase of peat-digging has also been registered underneath the buildings and traces of peat-digging have equally been observed below the so-called ‘Gravejansdijk’.

The 15th-century inhabitation

So far nineteen buildings with brick wall-foundations have at least in part been investigated. For only half of these, a complete or nearly complete ground-plan could be examined. These ground-plans are preserved in the soil mainly as a network of robbery trenches. From the study of the few preserved walls it can be deduced that these foundations have been constructed using recycled materials. The very heterogeneous mixture of all kinds of bricks – some of with preserved remains of plastering – illustrates this very clearly. The bricks not only show variable dimensions (23-28 by 10-14 by 5-7 cm) but some of them also have different morphological characteristics (curved or asymmetrical bricks and bricks with which have been profiled in a specific way). Furthermore, we found that these foundations had been built without the use of lime mortar, although the robbery trenches regularly yielded whitish mortar fragments. The latter suggest that the walls (or at least some parts of the walls) were plastered at a higher level. In addition to providing a better isolation, a whitish plastering of the walls also enhances the brightness within buildings which only had a few small windows or even none at all.

A kind of beige clayey sand is used as cement. The foundation of the walls is generally very shallow. Sometimes, the picture seems to be one of the walls not having any subsoil foundations at all, but having been built from the ground-level upwards. In one of the buildings, the original living-floor is still present and shows that in fact the base of the corresponding walls is at the most only 20 cm deeper. This means that if we take into account the 15 cm thick layer of clay that has been brought in the building during or after its construction, the walls did not have any real subsoil foundation.

Generally, only one to three courses of bricks have been preserved *in situ*. In a few cases, however, up to eleven courses can be found, reaching a height of up to 80 cm. The walls are generally 35 to 50 cm thick and consist of a kind of cast work with only the vestments constructed with complete or half bricks. The lowermost layers can reach a thickness of up to 70 cm (2.5 bricks).

In the zone which has been investigated most intensively, the buildings are grouped in three different areas separated from one another by ditches which are 3 to 4 m wide (Fig. 2). The infilling in these ditches can be separated into two parts which are different genetically. The upper part results totally from human intervention by man and consists mainly of ashes mixed with all kinds of human refuse. The lower part is strongly clayey and corresponds to a water-

lain deposit. The origins of these ditches probably date back to the phase of the agricultural use of the area. The infilling of the ditches with all kinds of refuse certainly happened at a time when the draining function the ditches was no longer required. Anyhow, their orientation (NW-SE/NE-SW) apparently has determined the orientation of the buildings. The latter run parallel or at square angles to one another. The predominant ground-plan has a rectangular shape. In its basic form, it reflects a 12 m long and 6 m wide volume. Internally, the available space is subdivided into two rooms, a large one occupying two thirds of the total surface and a smaller one occupying the remaining third. The rectangular lay-out varies essentially in terms of its length which ranges from 12 to 17.5 m. Apart from one exception with a width of 8 m, the width of the constructions is relatively stable at 5,5 to 6 m.

When looking at the ground-plan of the different buildings (Fig. 2), it is obvious that three of them diverge from the above described basic rectangular model. Building 4 with its circular annex is a single-room building. The buildings 1 and 13, the two largest ones of the group, are more complex. In both cases, however, the composing basic ground-plan model can be recognised in the overall plan. Both buildings also display other characteristics which single them out. First of all, they have a brick-floored fireplace, which in the case of building 1 most probably supported a stove or oven. The localisation of a heating device close to an internal wall suggests that these walls at least were sufficiently heat-resistant. Secondly, both buildings are equipped with a few supplementary conveniences such as a brick-built well, a vaulted latrine, a kind of a small, and a circular underground cold storage facility (?) or floored spaces, both inside and outside the building.

In the area closer to the dunes, outdoors brick pavements which are 1 to 1.5 m wide and adjoin the walls are the rule rather than the exception. This is probably due to the better conservation of the archaeological structures in this area and this allows us to assume that the buildings generally had such outdoors brick pavements adjoining the walls. One of these pavements has semicircular (radius 4.5 to 5 m) lay-out and a considerable surface (about 30 m²); it consists of a layer of canted bricks and is partially bordered with natural stones. The brick surface shows traces of significant wear and one is tempted to assign to this pavement a special function; but up till now, no hard archaeological evidence confirms this hypothesis.

So far, only one building has yielded information concerning the entrance. Its location in the south-eastern corner of the building is understandable

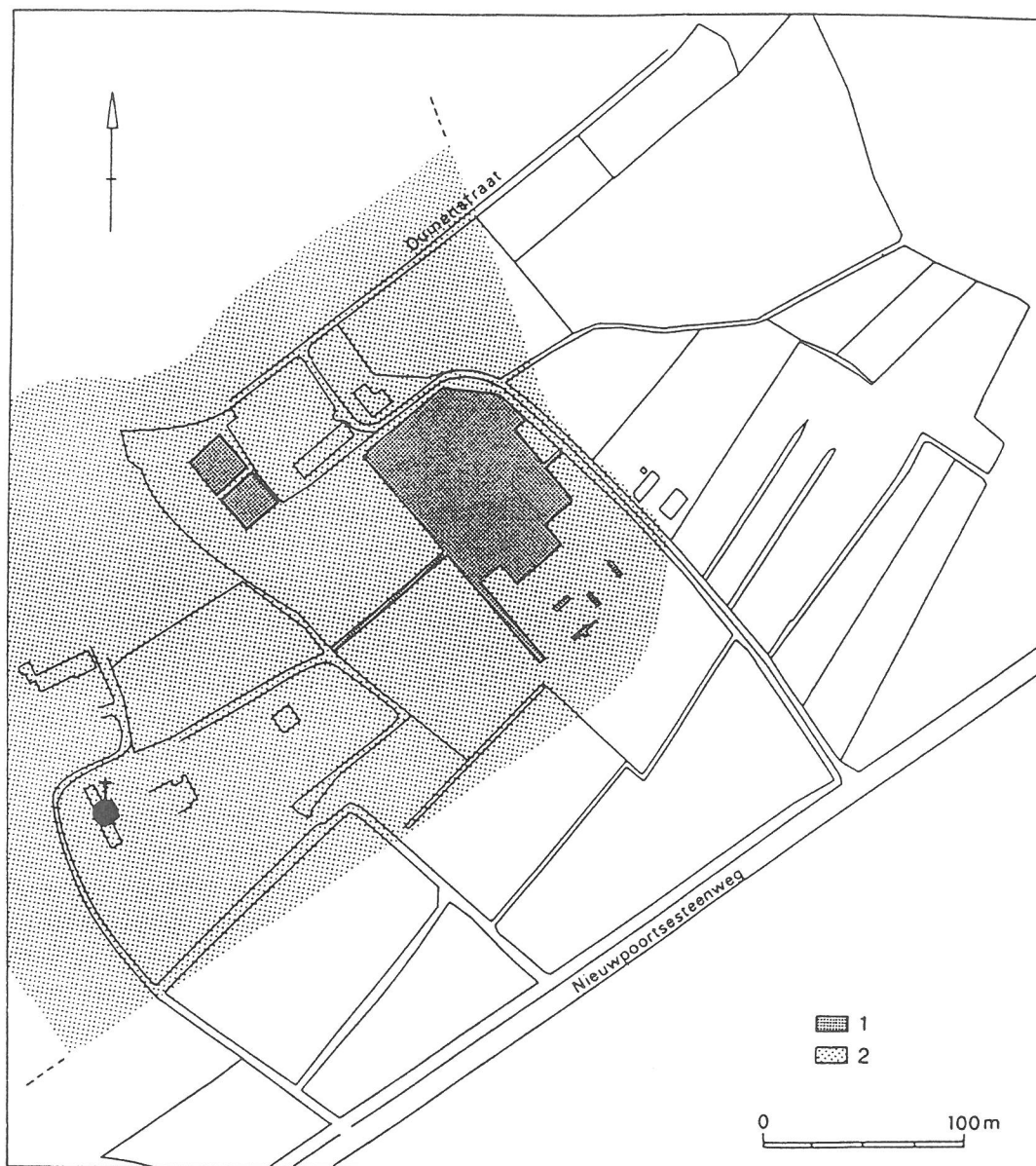


Fig. 1. - Location of the excavated part (darker zone) of the late medieval habitation zone (greyish area) with indication of the church-site. 1. Excavated; 2. Approximate village area.

from a climatic point of view, since less than 10 % of the winds in this part of the country blow from this direction.

Some buildings have buttresses, external as well as internal ones. At present, no regular pattern can be discerned as to their position. While the internal buttresses may have been intended as direct supports for parts of the roof, the external ones had to counter the lateral pressure exerted by the roof-construction.

As fragments of tiles and slates are very scarce among the archaeological finds, the roofs were probably thatched. The observation of lots of charred remains of galingale (*Cladium mariscus*) among the plant remains could mean that this plant, a member of the family of the *Cyperaceae* and well-known in the region, has been used as thatching material.

Besides the floored fireplaces, circular or oval surfaces burnt *in situ* are met frequently in the buildings. They are often flanked by pits filled in with ashes or heated sediments, mostly sands. On three occasions dug-in pots have been found. As a rule, these were filled with ashy sediments. In one of them a coin was found at the bottom of the pot as if it had been hidden there deliberately.

No evidence for the housing of cattle (such as traces of trampling or high phosphate accumulations) can be detected in the area actually under study. If cattle-raising belonged among the activities of the villagers it surely did not take place in that part of the settlement which has already been excavated.

Judging from the regular and very homogeneous nature of the general lay-out, it appears that the area



Fig. 2. - General simplified ground-plan of the excavated area with indication of the 1: ditches, 2: buildings, 3: wells and 4: peat-exploitation pits.

with the ditches was inhabited only for a limited period of time. The occurrence of only a few and mostly slight modifications of the buildings is a second argument in favour of this hypothesis. On the other hand, at least three phases can be observed in the area closer to the dunes and this may point to a longer period of inhabitation.

Besides the buildings with a brick base, at least three wooden buildings are present in archaeological record of Raversijde which has been investigated up to now. The numerous post-holes in the zones concerned do not, however, allow us to identify a clearly defined ground-plan. A combination between both types of construction – wood and brick – is also possible. On one occasion a brick base building with a wooden annex has been documented.

On several places, 25 to 70 cm wide eaves-drips occur; these gullies drain the rain-water dripping from the roof to the ditches or to some large man-made depressions in the area. To the south of building 4 a sewer connects three gullies and drains the collected water to the ditch.

Another vital condition for the inhabitants is the supply of drinking-water. Apart from three wells constructed with bricks, the water-supply is predominantly ensured by means of barrel-wells. So far, nearly 50 of them have been investigated. In general they are about 2 m deep and reach the sandy aquifer.

Only one of them reached a depth of 4 m and perforated even the above-mentioned peat-layer.

Below the water-table the barrels – originally herring-barrels – are very well preserved. These constructions which are rather characteristic for a fishermen's village are also very useful as actual archaeological indicators. As these barrels are made from oak, which according to the dendrochronological analysis grew in the Gdansk area (Poland), they are extremely useful as a dating tool. So far about 22 of them have been analysed and provided us with dates ranging from the late 14th to the late 15th century. Remarkably enough, the exceptionally deep well also provided the oldest date (1389-1401). A possible hypothesis could be that this well had been installed as a kind of a test to explore the subsoil when settling the area.

These deeper structures also are a valuable source of information on the material culture of the inhabitants, particularly where the more organic and perishable part of it such as wooden and leather objects are concerned. During the period when the wells were in use, lots of small animals (amphibians, small mammals and insects) were trapped in them. Their remains are very helpful in reconstructing the local environmental conditions.

When a barrel-well got out of use, apparently no recycling whatsoever was planned for. The remaining inconvenient was simply filled in.

When analysing the spatial distribution of these wells while at the same time taking into account the dendrochronological information, two groups of five wells each deserve special attention. It looks as if in both groups the wells constitute a chronological sequence having replaced each other at given time-intervals. This in its turn could shed some light on the duration of the occupation of the associated buildings.

The bottom fill of some of these wells clearly suggests that the inhabitants preferred unpolluted water. Frequently pure sand-bodies have deliberately been introduced into the wells in order to cover the base which had already been partially polluted by organic matter (leaves, branches, small animals). As the small diameter of the wells excludes a thorough cleaning – as is possible with the brick wells which have a larger diameter (80 to 100 cm) – the introduction of sand could be a means to ameliorate temporarily the quality of the water.

The barrels themselves are relatively small: 72 to 75 cm high and with a diameter halfway between top and bottom of 51 to 62 cm. These dimensions represent a volume of something in between 110 and 150 litres. The barrels frequently show marks on the stave with the generally more or less square bung-hole. When the original lid of the bung-hole was not preserved, the bung-hole was closed with another stave, with a piece of leather or with the bottom or cover of a barrel before the barrel was sunk into the soil. So far, only in one case a bottom or cover of a barrel was left in its original position and used as well-bottom.

The wells lead us to another type of structure: latrines. So far five such structures have been investigated. Two of them are constructed with bricks and are clearly integrated into the architectural concept of the respective buildings (buildings 13 and 14). Three other latrines have a barrel as an underground receptacle. These barrel-latrines are not recycled barrel-wells as can be inferred from their shallow depth. Two of them are paired and obviously represent a communal latrine arrangement.

From the analysis of the remaining typical filling is clear that the latrines were used exclusively as toilets and not as household refuse dumps as is frequently the case in urban contexts.

Besides these shallow barrel-latrines, two shallow circular brick structures with an inner diameter of about 40 cm and an approximate depth of 1 to 1.2 m have been investigated as well. These structures were completely filled in with brick debris after having been abandoned; they are provisionally identified as cold stores. One of them contained a grey ware pitcher standing at the bottom of the structure. When

appropriately closed at the upper part, such a structure could indeed serve perfectly well as a cold store.

A rectangular brick structure, 1.4 m long and 0.8 m wide, can be interpreted as the lower part of a smoke oven to treat fish. The cement in the joints between the bricks of the floor is coal-black, while the cement in the joints of the walls has the normal beige colour. Recently, a second and nearly identical structure has been unearthed but in this case, the cement in the floor and in the walls did not show the same differences in colour.

Roads have not yet been found. Only a pathway metalled with natural stone and close to building 13 has been unearthed.

When looking at the general ground-plan two large features have not yet been discussed. One of these has been excavated nearly completely and proved to have a surface of more than 500 m². When looked at in section, it becomes clear that these features have a complex origin. After the extraction of the peat and part of the clay and the partial filling in of the pit, the remaining depression was recycled as a household refuse dump and as a drainage basin. By doing so, the inhabitants in fact lived around their proper refuse dump.

Material culture and organic finds

The small finds include a wide range of materials. Among the artefacts, ceramics constitute the bulk of the finds. The ceramics mainly consist of common red and grey wares produced in the region roughly in the 15th century. The red wares largely predominate (with percentages up to 80 %). The following forms occur: cooking pots, skillets, bowls, plates, dishes, pitchers, jugs, storage jars, dripping pans and lids. More exceptional are anthropomorphic whistles, collanders, fire-covers and oil-lamps. Among the grey wares now and then potsherds occur which are covered with a sticky black substance, which can be identified as tar or pitch. These objects probably have something to do with a known treatment of fishing-nets with tar or pitch.

Brickwares also figures among the ceramics but only in very small quantities. Among the imported wares, two European regions are very well represented: Germany and the Iberian Peninsula, more specifically Andalusia. Stoneware from Siegburg, Langerwehe and Raeren is present on the site. Most of the stoneware products cannot, however, be readily assigned to a specific production centre: they can only be identified in a general way as coming from the Rhine area and/or from the adjoining Aachen-Raeren region. Among the Siegburg products, green glazed examples occur regularly. The Iberian pottery in-

cludes the well-known majolica but coarser products from the Mediterranean region are also present among the finds. The actual picture emanating from the ceramics points to people with a moderate standard of material living.

Further research on the ceramics as well as cross-fitting and spatial analysis of the finds should allow us to detect socio-economic differences – if any – between the inhabitants of the excavated part of the village. A first approach of the infilling of the ditches already highlighted the promising heterogeneity of the material.

Among the non-ceramic items, objects related to fishing dominate the finds collection: sinkers in lead, limestone and brick, a sounding-lead, barbed iron fish-hooks between 4 and 12 cm in length, smaller copper-alloy fish-hooks, disgorgers copper-alloy, antler marlinespikes, wooden netting-needles and cork floaters. One of the netting-needles is nicely decorated with a very typical drawing of three entangled fishes. Other finds can indirectly be related to fishing activities: the presence of pit-coal and of lots of natural stones. The Belgian coastal area is very poor in natural stones. Independent from historical research, the petrologic study of an assemblage of nearly 100 natural stones excavated in one of the ditches concluded that they came from the northeastern coast of the British Isles somewhere between Northern England and the valley of the Humber. The pit-coal probably came from Newcastle-upon-Tyne,

since the fishermen of Walraversijde participated in this late medieval trade.

Apart from objects related to fishing and therefore typical for coastal, estuarine or riparian sites, other artefacts such as spindle whorls and weights allow us to identify more widely spread domestic industries such as spinning and weaving. Apart from these, no other crafts can at present be discerned in the archaeological finds.

Dress accessories such as buckles, pendants, badges and combs (in wood as well as in ivory) form another important group of small finds. Objects related to leisure (such as dies, marbles, mans and tops) or to religious beliefs (such as pilgrims badges, bracelets and clay figurines) also occur regularly.

Among the organic finds – particularly wooden ones – brooms are equally well represented.

Some exceptional finds such as a fragment of one of the oculars of a pair of spectacles, a measuring-rod and a visor, are to be related to the categories of people frequenting the village. The pair of spectacles and the measuring-rod are probably related to the presence of merchants while the visor undoubtedly belonged to an armed fisherman. This is not contradicted by the fact that the authorities regularly summoned people from Raversijde to assist in the defence of the coast.

From the small finds, it can be concluded that the area under study had already been left at the end of the 15th or in the beginning of the 16th century. The

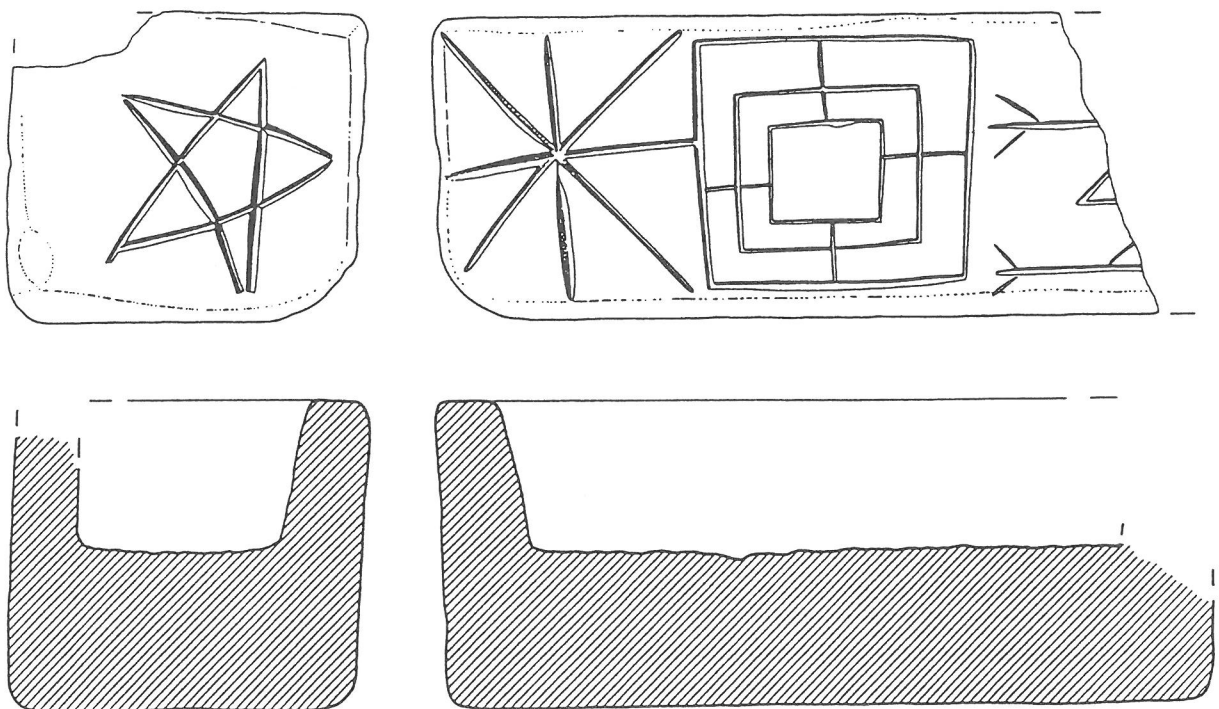


Fig. 3. - Decorated container in so-called 'brick-ware' typical for the Belgian coastal area. Scale 42%.

numismatic evidence is quite clear. Most of the coins date from the period of John the Fearless (1405-1419) and of his son and successor Philip the Good (1419-1467).

The calcareous and humid soil environment results in very good conservation conditions for bone material; sometimes even the cartilaginous parts are conserved. In the zone along the dunes with the best conservation conditions even a few starfish-skeletons have been preserved.

The first archaeozoological analyses reveal the consumption of sheep, cattle and pigs. The meat menu is further supplemented with chicken, goose and duck and occasionally with rabbit and red deer. The villagers also consumed lots of shellfish such as mussels, oysters and whelks. For the moment no consumption remains of crab or lobster have been found.

It is clear that in the actual context special attention has been paid to the fish remains. Apart from eel and carp, the fish remains nearly exclusively consist of sea-fish. The already identified species are cod, glounder, haddock, herring, plaice, tuna, thornback and whiting and different species of sharks. Typical for the site is the presence of occasional catches as sharks that so far have not been found on inland sites. A second feature is the joint occurrence of small and large specimens joint. Normally, the smaller specimens are absent from pure consumer sites.

One of the pits – the first which has been studied in any great detail – contained a lenticular deposit of fish-bones. Thousands of plaice remains, belonging to approximately 130 individuals have been investigated and it was shown that the skeletons are incomplete. Only head and tail elements, together with stomach contents, had been deposited; cut marks behind the head and near the caudal fin occur frequently. The high concentration of these remains and the absence of any admixture of other faunal remains or archaeological objects indicate that the deposit reflects a single event. It is believed that these fish bones are the remnants of plaice processed for future consumption and export inland.

A first study of macro-botanical remains revealed the presence of the following consumption plants: wheat, oats, barley and broad bean. All these species could be grown in the vicinity of the site.

The analysis of the parasite remains of the infilling of one of the barrel-latrines revealed the presence of eggs of *Trichuris sp.*, *Ascaris sp.* and *Trichostrongylus*. The presence of the last parasite is most probably related to the presence of sheep in the immediate surroundings. All parasites discovered indicate a precarious – at least when compared to our present standards – hygienic level.

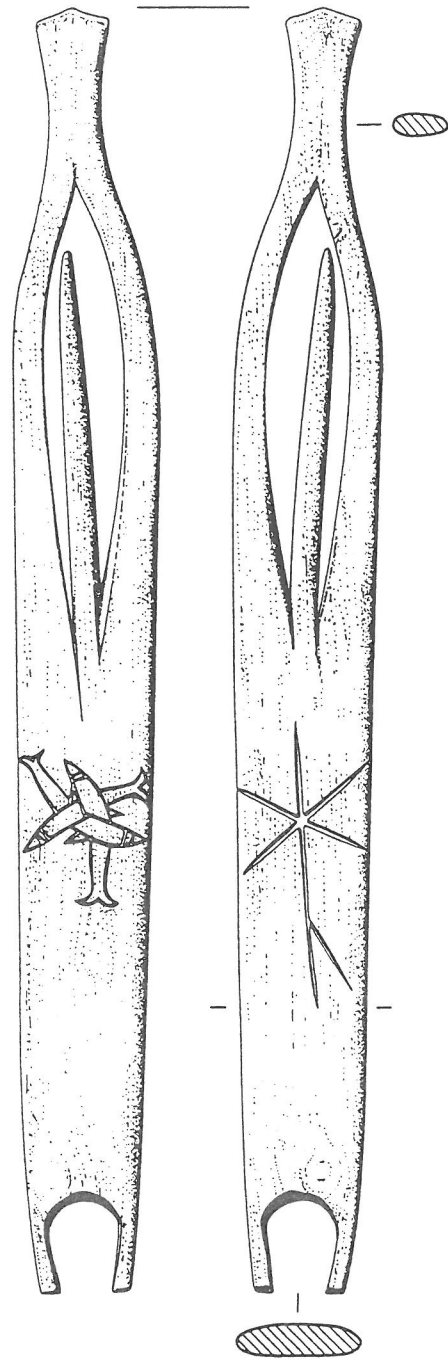


Fig. 4. - Wooden netting-needle decorated with three entangled fishes. Scale 1:1.

Finally, an entomological study of the beetle remains from one of the barrel-wells pointed to a grassy environment.

Synthesis

At the end of the 14th or in the beginning of the 15th century, a formerly agricultural zone of Walraversijde became a building ground. The buried plough-layer and at least part of the ditches are the reminders of this agricultural phase. It is plausible

that at that point in time, the settlement which had been heavily damaged by numerous storm-tides, was partly relocated landwards in the safer environment behind the 'Gravejansdijk'.

Not only the regular and homogeneous lay-out of the building-ground under study, but also the chronological data provided by the barrel-wells and by the small finds suggest this area to have been inhabited mainly during the 15th century. The abandonment of the area studied is probably related to the uprising of the Franc of Bruges against Maximilian of Austria in the last quarter of the 15th century. This uprising was very severe, particularly in the countryside. It was a period of military troubles combined with pestilence and ensuing socio-economic problems.

The buildings investigated can be described as follows. The walls have a brick base with a minimal height of 80 cm. Although we suggest that above their brick base, the walls of these buildings were essentially in wood or wattle and daub, it cannot be excluded that some walls were constructed in brick up to the roof. Whatever the case, the roof was thatched. The whitish mortar remains found regularly in the robbery trenches probably indicate that the walls had a whitish finish. The buildings predominantly have a rectangular ground-plan, which in its basic form consists of a 12 m long and 6 m wide volume internally subdivided into two rooms. The largest of the latter generally contains the fireplace. Some indications such as the absence of internal points of support for the roof and the presence of a few internal buttresses could be interpreted as pointing to a cruck-construction, but we could just as easily imagine a roof which was in essence supported by the walls (internal as well as external ones).

Two of the buildings two can be singled out by their larger size and by the presence of several additional conveniences as a brick well and a brick latrine. It is possible that those buildings belonged to people of a slightly better socio-economic status than the average inhabitant. This must, however, still be checked through confronting the architecture with its associated refuse.

Evidence for the housing of cattle could not be found. The buildings do not have a surrounding garden or enclosure as seen frequently in medieval villages (e.g. in Wharram Percy).

Nevertheless, we may assume that at least some villagers engaged in agricultural/horticultural or stock-breeding activities in the immediate vicinity of the village. The fact that fishing and associated activities played a very important part in the life of the villagers may explain the dense built-up of the area with buildings standing very close to one another. The rather elementary houses of Walravensijde fit in very

well in with people whose activities took place mostly out of doors.

The large depression resulting from peat- and clay-digging activities places the lay-out of the area under study in a specific context. It is quite possible that the building activities on this terrain started with the digging of a large pit in order to extract peat and clay to be used for the construction of the buildings which in fact seem to be located round about the remaining depression.

The typical barrel-wells are quite an important part of the archaeological story as they provide us with the possibility to follow the chronological evolution of the inhabitation. Apart from their importance in terms of chronology, they also allow us to gain a measure of insight in the environment of the area.

The material culture is quite characteristic, first and foremost all because of the presence of numerous objects and finds directly related to fishing. An important amount of other finds are indirectly related to these fishing activities. That fishing was an important part of the activities can also be deduced from the remains of fishes themselves.

The presence of natural stones coming from the northeastern coast of the British Isles, of pit-coal, of a considerable amount of imported wares from the Mediterranean (such as ceramics from Andalusia), of cork floaters and of ivory combs also has to be mentioned. Similarly, some finds such as a fragment of a pair of spectacles point to special characteristics of the site.

A first detailed analysis of the material culture of the inhabitants allows us to suggest that in socio-economic terms, the inhabitants seem to have a standing which was slightly above the rural average in the region.

Much archaeological research still remains to be carried out. First of all and as the excavations are still in progress, the full exploitation of the archaeological data, including the cross-fitting and spatial analysis of the small finds is yet to come. The same holds true for the contributions from the different partner sciences. So far, the partner sciences have in fact led only to first assessments. A first general assessment concerning the zone with the ditches is planned in the course of 1998.

Secondly, as the archaeological strategy is in fact regulated by the rhythm of the realisation of the touristic infrastructure, an important part of the village – including the church and the adjoining churchyard, the windmill, the brewery, the main street and different satellite habitations outside the nucleated area – has not yet been touched by excavations. We hope that this important hiatus can be taken care of by the next edition of *MEDIEVAL EUROPE*.

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Marnix Pieters
 Instituut voor het Archeologisch Patrimonium
 Doornveld 1, bus 30
 B-1731 Asse-Zellik
 Belgium