

WINSUM-BRUGGEBUREN, THIRD REPORT ON THE EXCAVATION BRONZE AND OTHER ROMAN FINDS

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ABSTRACT: The Roman finds other than coins and pottery, from the 1997 excavation at Winsum, are presented here. The majority of the finds date to the Augustan/Tiberian period, while a small number of objects date to the second and third centuries AD. The objects include metal items such as brooches, but also glass and other precious finds. The assemblage seems to point to the presence of the Roman army in the early first century AD while the later finds appear to indicate different contacts with the Romans. Winsum was situated in a densely populated area which was studded with large numbers of small *terpen*, dwelling mounds which accommodated one or two farmhouses. The clay district of Friesland was surrounded by peat and water, it was only accessible via higher grounds along the coast or by ship. Winsum was situated near the river Boorne which had an outlet in the Wadden Sea, from where the IJsselmeer (then Lake Flevo, former Zuiderzee) could be reached. Branches of the Rhine discharged into the IJsselmeer and the connection with the Rhine was facilitated by the *Fossa Drusiana*.

KEYWORDS: Winsum, Frisians, Augustan and Tiberian period, Roman army campaigns, *Fossa Drusiana*, Roman small finds, brooches, steelyard weight, stone tablet, wooden buckets, Roman shipping.

1. INTRODUCTION

The excavation in the Frisian *terp* of Winsum was carried out in 1997 by the Groningen Institute of Archaeology in collaboration with the municipality of Littenseradiel and the Argeologysk Wurkferbân of the Fryske Akademy. The supervision was by Dr. J.M. Bos while the excavation was directed by M.J.L. Th. Niekus. T.B. Volkers supervised the finds administration.

The Roman coins and the Roman pottery from the excavation at Winsum have been published in two previous articles (Galestin, 2002, 2003). In this third article the remaining Roman finds from the 1997 excavation will be published. They comprise a number of small finds like copper alloy objects (brooches, knob, pin, steelyard weight), a silver pin, a stone tablet, a small glass fragment and two large wooden buckets. Most of these objects date to the first century AD but some date to the third century AD, for instance the plate brooch and the native Germanic bow brooches with high catchplate.

2. CONTEXT

In Winsum a small part of the *terp* was excavated (fig. 1). The Roman objects discussed here were discovered in various trenches of the excavation and in different levels (fig. 2). The features from the highest levels are difficult to date because these levels are truncated. The finds of the highest levels may not be *in situ* because of the activities which accom-

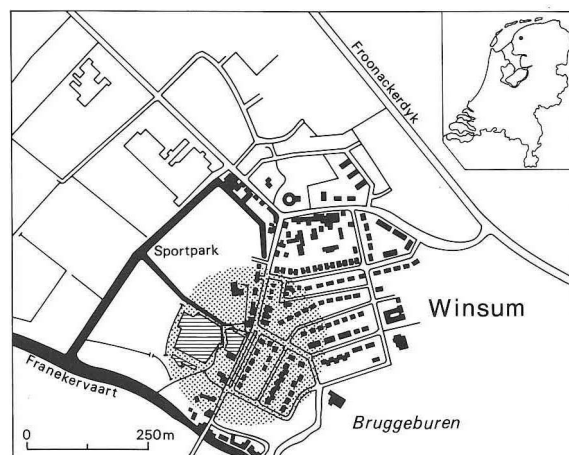


Fig. 1. Map of Winsum with the approximate outline of the former *terp* (shaded) and the location of the excavation (hatched areas).

panied the quarrying of the fertile soil of the *terp* in the nineteenth century. This may be why third-century finds were found in the upper layers as well as first-century objects. Many finds came from the upper layers of trenches 1, 2, 3 and 9. These finds include first-century brooches, like the Aucissa brooch (97.1479) from the upper layer of trench 9, but also the third-century plate brooch (97.375) from the top layer of trench 2. Third-century finds were also found in different levels. A third-century brooch (97.1315) was found in trench 7 layer 2, while a similar brooch (97.818) was found in trench 5 layer 1, at a depth of circa 110 cm below NAP. In the lower

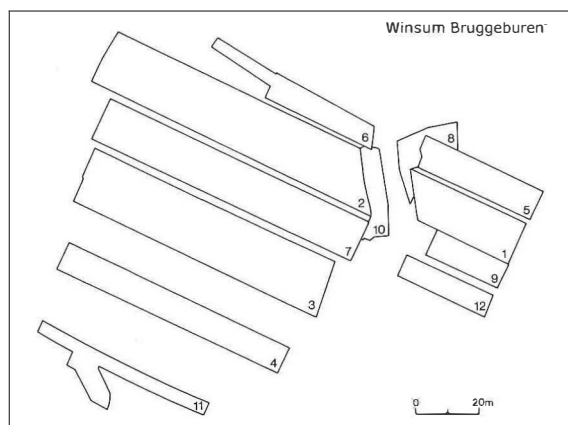


Fig. 2. Trenches of the excavation.

levels of the same trench, two wooden buckets were found. The first appeared in the western part of trench 5 in layer 2, at a depth of 143 cm below NAP, together with sherds of native pottery dating to the Roman Iron Age. The second bucket was found in the lowest stratum of the western section of trench 5, just above the marine sand at a depth of circa 180 cm below NAP. This stratum may also be dated to the Roman Iron Age. In the same stratum native pottery dating to the Roman Iron Age was found and also in a stratum covering this find. Other Roman finds like a stone tablet and a bronze lantern part were also discovered in trench 5, in layer 3, at the same depth (circa 175 cm below NAP) and also just above the natural soil.

The finds from the lower levels of trench 5 appear to be *in situ*, in a first-century context. The first-century finds from the higher levels may not be in their original place, having possibly been moved during the quarrying of the *terp*.

After the completion of the excavation, when the area was prepared for building activities, an amateur archaeologist working the site with a metal detector discovered two more Roman finds: an eye brooch and a fine Roman steelyard weight which he reported immediately. The latter is now on show in the Fries Museum at Leeuwarden.

3. DATE AND FUNCTION OF THE OBJECTS

Among the small finds and other objects excavated at Winsum there are two groups: early first-century objects and objects dating to the second or third century AD. The first-century items make up the majority of the finds. In Italy and in France similar first-century objects are known from civilian contexts like Pompeii. In northwestern Europe, however, most early first-century objects may have had a military

connection. Such objects are often found in military contexts, in Roman camps along the rivers Rhine and Lippe. In our region, too, at this early time in the first century AD, most Roman finds are known from military sites like Nijmegen and Velsen. Roman presence is confined to the Roman army, and Roman objects in some way or another relate to the Roman army. The copper-alloy lamp, for instance, has parallels in military as well as civilian contexts and the same is true for stone tablets, which are seen at Haltern and at Hofheim but also in civilian contexts, for instance at Augst. Some of the brooches, on the other hand, like the eye brooch and the *kapfibula*, are not confined to Roman military contexts such as castra and castella. Their distribution area is, however, still related to Roman military presence. According to Haalebos (1986: p. 18) the distribution of the *kapfibula* illustrates the use of this type of brooch in areas which had Roman contacts before the Limes formed an obstacle. The eye-brooch was worn by Roman soldiers but also by native people in the provinces where the type probably originated (Haalebos, 1986: p. 37). The only specifically Roman find is the Aucissa brooch, which is known from military contexts and romanised civilian sites (Haalebos, 1986: p. 43).

Most of the objects discovered at Winsum have in common that they are known from Roman civilian contexts as well from findspots related to the Roman army. However, it is the combination of the different finds which makes it probable that at Winsum we are dealing with a military context. The objects in combination with the coins and the pottery all point to military presence and relations with the Roman forces and the importation of all objects, especially the heavy pottery, must have required organised transportation, most probably by ship.

In the catalogue which follows all objects will be discussed and dated.

4. CATALOGUE (figs 3–7)

4.1. Roman objects discovered in the excavation

1. *Schüsselfibula* (*kapfibula*) WB 97.848 (3/2).

One-piece brooch with a thin, violin-shaped bow and a four-turn spring with internal chord. Half of the pin remains, the long and narrow foot tapers towards the end. The catchplate is almost entirely missing but some remains of the openwork pattern are still visible. The bow is beaten to a curved and violin-shaped form with a central groove ending in a V just above the triple moulding that forms the transition to the long and tapering foot. Length: 7 cm.

This type of brooch is called *kapfibula* (hooded brooch) by Van Buchem (1941) because of the form of the end of the bow, which is pulled over the spring like a hood. The type was also studied by Ulbert (1977: pp. 37–40) who identified three variants of which type III, *Variante Bozum*, is similar to the brooch from Winsum. This type III, which is larger than the two other types, is known

from many other places in Friesland; three of them, Bozum, Finkum and Jorum, are situated in Westergo (Friesland), not far from Winsum. This type of brooch was also found in Oostergo (Friesland), in Groningen and in Drenthe. In Germany it is known from Bentumersiel and Feddersen Wierde (Ulbert, 1977: p. 39). From the Netherlands all three types are known not only from military sites of the Augustan and Tiberian period but also from numerous civilian sites, many of which are in the northern provinces, especially in Friesland (Haalebos, 1986: p. 86 and fig. 7). The brooch from Winsum is most similar to brooches from Bunnik-Vechten (Haalebos, 1986: fig. 5, 2) and Velsen I (Haalebos, 1986: fig. 29,3), both military sites.

According to Ulbert (1977: p. 39), variant III may be a typologically developed form of variant I while II and III are closely connected, but all three variants may be relatively close in date and all three types may have evolved in the area of the lower Rhine in the first half of the first century. Van der Roest (1988: p. 146) argues that the date of brooches of *Variante Bozum*, type III, may be from the late Iron Age into the Tiberian period, because of their occurrence at Haltern and Bentumersiel.

Date: Augustan/Tiberian period.

2. Eye brooch (*Augenfibel*) WB 97.456 (2/2)

One-piece brooch with pierced eyes which are opening sideways, and lateral knobs on each side of the head. The spring originally had eight turns, of which four remain. The external chord is held by a broad hook. The short, bevelled bow has a transverse moulding and a long, slightly splayed foot which is bevelled and has incised lines along the edges and an incised V at the end. The catchplate is intact, the brooch is distorted.

Length: 5 cm.

The eye brooch got its name from the pair of distinctive 'eyes' in the head. The eyes may be formed by holes which open sideways, or may be indicated by circles. According to Almgren (1923: p. 21), the earliest examples have the holes opening sideways. This early variant, Haalebos type a 1, is present in Velsen I (Haalebos, 1986: p. 35 and figs 12.1 and 30.6). Around the middle of the first century the eye brooch is one of the most common types of brooch in military contexts and even outnumbered the Aucissa brooch which typically indicates Roman presence (Haalebos, 1986: pp. 37, 43). The eye brooch in its early form is known from various, often military, sites in the Netherlands and in the northern provinces three early variants are known: one from the eastern part of the province of Groningen (Haalebos, 1986: fig. 15) and two from Friesland, from a *terp* near Schingen and from Holwerd (Kramer, 1987: p. 106 and fig. 2,1). The date for eye brooches is pre-Flavian but the early variant is known from Haltern and dates to the early first century AD (Haalebos, 1986: p. 37). According to Van der Roest (1988: p. 147) the variant with the open eyes may be Augustan in date.

Date: early first century AD.

3. Eye brooch (*Augenfibel*) WB 97.9 (1/1)

One-piece brooch with pierced eyes surrounded by circles. The head has lateral knobs. Spring and hook are missing. The short, bevelled bow has a central ridge, ridges on the edges, a transverse moulding and a long bevelled foot with incised lines at the end forming a V.

Length: 4.8 cm.

The brooch has pierced eyes surrounded by an incised groove. Brooches with pierced eyes and a circular groove are identified by Haalebos (1986: p. 35) as type a 2. These brooches are early variants, just like the brooches with eyes opening sideways. This early type is dated to the Augustan/Tiberian period according to

Van der Roest (1988: p. 147, note 24). Similar pieces are known from Velsen I with similar ridges on the edges of the bow (Haalebos, 1986: p. 111 and fig. 30,7).

Date: early first century AD.

4. Eye brooch (*Augenfibel*) WB 97.1360 (7/3)

One-piece brooch with pierced eyes and lateral knobs on either side of the head. The spring has six turns and the external chord is held by a sturdy hook. The brooch as a short bow, a central groove, a transverse moulding and a long foot which is slightly bevelled and has an incised line along the edge and an incised V at the end. The brooch is intact.

Length: 4.2 cm.

Compared to the preceding specimens, this is a relatively small brooch with pierced eyes, similar to four examples from Velsen (Haalebos, 1986: p. 111, figs 12,2-5).

Date: Augustan/Tiberian period.

5. Eye brooch derivative WB 97.1163 (7/1)

Eye brooch with the eyes lacking, a very small crosspiece and a spring of six turns. Only a small part of the pin is present. The external chord is held by a forward hook. The upper part of the bow is flat in section with central ridge, a double moulding at the waist while the foot is flaring. Catchplate partly present, its turnover missing.

Length: 3.7 cm.

This is an eye brooch which lacks the eyes (Böhme, 1972: type 5; Haalebos, 1986: type d). The type with 'blind' eyes may be dated in the advanced first century, even after AD 70; compare with specimens from Nijmegen, Saalburg and Zugmantel (Haalebos, 1986: p. 37; Böhme, 1972: type 5). On the other hand, the small bow with an undecorated ridge is characteristic of early eye brooches (Haalebos, 1986: p. 35). The question is which criterion must prevail. The presence of an eye-brooch without eyes (type d) in Velsen I (Haalebos, 1986: fig. 30.4) seems to indicate a date not later than the Tiberian period, indeed a date for this type in the advanced first century is very unlikely. This type was dated by Van der Roest (1988: p. 149) to the Claudian/Neronian period. Eye brooches without eyes are known from Velsen, Bunnik-Vechten, Nijmegen, Cologne, Neuss and Moers-Asberg as well as from several sites in the northern provinces of the Netherlands, such as Middelstum and Ezinge in Groningen (Haalebos, 1986: fig. 15) and various sites in Friesland (Haalebos, 1986: fig. 15; Kramer, 1987: Fig. 3, variant d.).

Date: second half of the first century AD.

6. Aucissa brooch WB 97.1479 (9/1)

Aucissa two-piece brooch, the headplate has notches on both sides, a faint triangular incised decoration, a bead row next to the pin, and across the head an illegible inscription consisting of mere ornaments in relief. The bow consists of a relatively thin and round wire with transversal ribs. The pin is hinged on an axis and is held in the folded-over end of the head. The pin is complete. The catchplate is partially present.

Length: 4.8 cm.

Aucissa brooches are considered typically Roman. They indicate Roman presence, appearing in military sites along the Limes (Haalebos, 1986: p. 43). These brooches occur in Velsen I and in Bentumersiel, while in Friesland the type is known from two other sites: Foswerd and Huizum, both in Oostergo (Haalebos, 1986: fig. 17). The brooch from Winsum is an uncommon type with a wire-like bow which has a parallel in Maastricht (Haalebos, 1986: p. 43). The date of the brooch is Augustan and according to Haalebos (1986: p. 43) continues into the first century until



Fig. 3. Bronze objects, scale 2:3, and glass fragment, scale 1:1. The figures refer to the catalogue numbers.

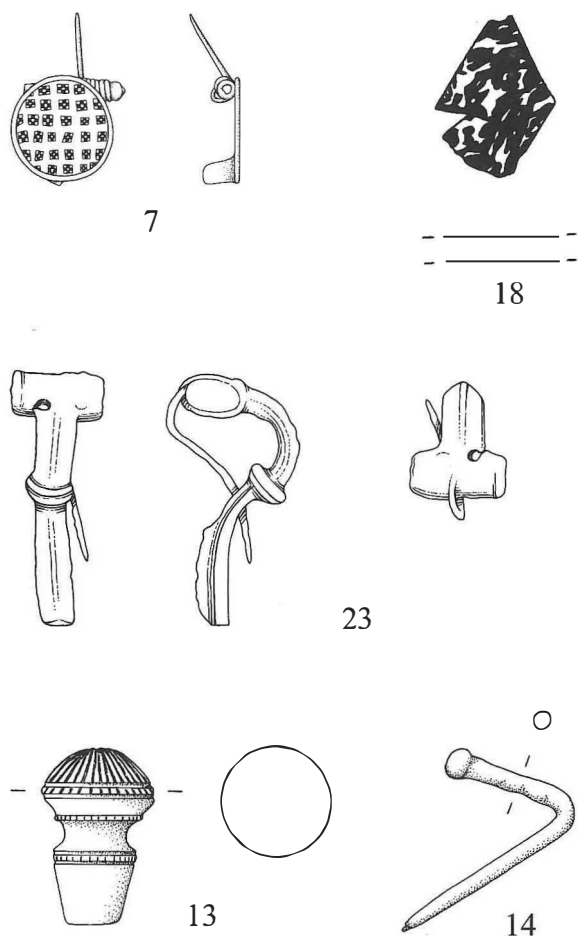


Fig. 3. Continued.

the Flavian period. The triangular incised pattern may point to a pre-Claudian date, cf. two examples from Rödgen (Simon, 1976: p. 54 and Pl. 6. 48–49).

Date: first half of the first century AD.

7. Plate brooch WB 97.375 (2/1).

Enamelled, circular disc brooch with millefiori glass decoration. The spring has eight turns and an internal chord and is wound around an axis with terminal knobs on both ends, of which only one is still in place. It appears that the axis is mounted on one or two pierced lugs. The pin still is intact and the catchplate remains but its turnover is missing. The plate is flat with a raised edge which is filled with a chess-board pattern of 31 identical inserts of millefiori glass in a plain enamel background. Each millefiori insert has a chess-board pattern of five light- and four dark-coloured fields. The colours have now faded but once they may have been yellow and blue on a red enamel background.

Diam: 2.2 cm.

This type of brooch is common and normally has a hinged pin. According to Haalebos (1986: p. 54) the plate brooches from the northern provinces of the Netherlands often have a spring instead of a hinged pin. The spring is typical of plate brooches from regions outside the Empire; this construction for brooches may have been preferred by the Germanic people (Van der Roest,

1988: p. 159). In Britain most of the simple discs have spring pins, attached in different ways. Here too it is assumed that the different methods of attachment may indicate different origins (Snape, 1993: p. 24).

The date of the plate brooch is the second half of the second century. For the millefiori brooch the date is similar, but it may continue well into the third century AD (Haalebos, 1986: p. 54; Van der Roest, 1988: p. 166). This type of brooch has been found at various sites in the Netherlands, including the parts across the Rhine, in the provinces of Friesland, Groningen and Drenthe, where the brooch often has a spring instead of a hinged pin (Haalebos, 1986: p. 54). Recent finds are known from a well in a native settlement at Deventer Colmschate, Overijssel, (Verlinde, 1992: Pl. 20) and from De Horden, Utrecht, (Van der Roest, 1988: No. 241 and Plate X). Another example was found in a grave at Nijmegen and is dated to the last quarter of the second century or early third century AD (Haalebos, 1990: p. 183 and fig. 100.9). Other recent finds include examples from Spannum, Friesland (Zijlstra, 1999: p. 205, fig. 5); from Kessel and Lith, both in Noord-Brabant (Verwers, 1990: pp. 150–151, fig. 22), Alblassterdam in the province of South Holland, also close to a native settlement (Van der Esch, 2002: fig. 7) and two almost identical pieces which were found in Germany, at Kamen-Westick and Rosendahl-Osterwick (Isenberg & Trier, 2001: p. 23).

Most plate brooches with millefiori glass decoration show fields with alternating motifs. The brooch from Winsum has identical millefiori inserts. This is also seen in the brooch from De Horden mentioned above, which has only 19 inserts in a different, radiate, pattern.

Date: third century AD.

8. One-piece brooch (*Drahtfibel*) WB 97.849 (3/2).

Simple one-piece brooch with a four-turn spring made of rectangular wire and with an internal chord. The bow has a diamond-shaped section and a low ridge at the waist. The foot is intact, the catchplate almost complete, and only the tip of the pin is missing.

Length: 4 cm.

Simple one-piece brooches, called *Drahtfibel* and also called Nauheim derivatives, are commonly found in the Rhineland, Gaul and southern Britain where they went out of use by the 70s AD (Snape, 1993: p. 12). In the Netherlands this type of brooch is known from the Rhine area, but also north of the Rhine in the *terpen* region (Haalebos, 1986: p. 51–52). Although the majority date to the period after AD 70, this type of brooch is also attested in earlier contexts (Haalebos, 1986: p. 52). This type of fibula was also present at Haltern and Hofheim (Van der Roest, 1988: p. 154).

Date: c. 50–150 AD.

9. One-piece brooch (*Drahtfibel*) WB 97.1197 (7/1).

Simple one-piece brooch with only one turn remaining of the four-turn spring. The bow is diamond-shaped in section. The foot is intact and the catchplate is missing.

Length: 4.3 cm.

For further comments, see brooch No. 8 above.

Date: c. 50–150 AD.

10. Two-piece brooch with high catchplate WB 97.523 (2/dump).

Two-piece brooch with high catchplate. The bow is lozenge-shaped in section. The spring and the turnover of the catchplate are missing.

Length: 3.7 cm.

This type of brooch is known as Almgren group VII, series 3 (Almgren, 1923: p. 94) in which the foot seems to be absent. The bow widens into the foot which is folded over to form the catchplate. It is a Germanic brooch and it is known from areas both north and south of the Rhine, with a concentration in the Elbe region. The Almgren group VII brooches from the Elbe region were classified by Matthes (1931: p. 20) who distinguished four 'series', based on differences in bow and foot. The brooches from Winsum belong to his series 4 where the foot has no distinct form and the bow passes fluently into the catchplate. Matthes distinguished two forms, 4a and 4b. His form 4a has a ribbon-shaped bow while 4b has a round, semi-round or triangular section (Matthes, 1931: pp. 25–26). Matthes dates the brooch to the period after the middle of the third century.

The example from Winsum has a lozenge-sectioned bow and may be attributed to Almgren group VII, Matthes series 4, form 4b. This type of brooch is found in many sites in northern Germany and Denmark (Matthes, 1931: *Karte* 5). It is also known from many sites in Friesland and several examples were discovered in the excavation of Wijndaldum. Erdrich (1999: pp. 171, 180–181 and fig. 1) dated this type of brooch to the period AD 175–300. This is in accordance with the context in which one of these brooches was found at Wijndaldum. This context is dated 250–300/350, which is Period II in the chronology presented by the excavators and this particular type of brooch (Almgren, group VII) is used to illustrate the metal finds from period II (Gerrets & De Koning, 1999: p. 81, fig. 6 and p. 96).

Date: 175–300 AD.

11. Two-piece brooch with high catchplate WB 97.818 (5/1). Two-piece brooch with high catchplate. Almgren, group VII. Matthes series 4b. The bow is lozenge-sectioned, the spring is missing and the catchplate is partly broken off.

Length: 2.3 cm.

For further comments, see preceding brooch. A similar specimen from Ewijk is described by Haalebos (1986: fig. 24.7) from Ewijk. Date: 175–300 AD.

12. Two-piece brooch with high catchplate WB 97.1315 (7/2). Two-piece brooch with high catchplate. Almgren group VII, Matthes series 4b. The bow is lozenge-sectioned. The spring is missing. The catchplate, which was flattened, is partly missing. Length: 2.3 cm.

For further comments, see brooches Nos 10 and 11 above.

Date: 175–300 AD.

13. Stopper WB 97.877 (2/dump).

Copper alloy stopper. The stopper consists of a head and a stopper. The round head is decorated with a ribbed motif, like a melon. The grooves are filled with a red paste, probably enamel. A line of beading marks the edge of the head and the top of the actual stopper. The stopper tapers towards the lower end.

Length: 3.5 cm.

The stopper probably belongs to a small bottle. The only comparison for the form of the head was a bronze button from Hofheim used on the lower end of a sword sheath (Ritterling, 1912: p. 157 and pl. XVI,37).

Date: probably first century AD.

14. Copper alloy pin WB 97.555 (3/0-1).

Short copper alloy pin with a tapering circular-sectioned shank and a globular head.

Length (unbent): c. 6.8 cm. Diameter of the head 0.6 cm.

This type of pin is difficult to date. Quite a number of bronze pins were discovered at Hofheim (Ritterling, 1912: p. 162, No. 50 and Pl. XV, pp. 49–61). According to Ritterling, these pins with rounded heads may have been used on wooden or metal objects according to Ritterling.

Date: Roman period?

15. Lantern WB 97.1155 (5/3).

Copper alloy part of a lantern. The base is made of a copper alloy sheet and it has vertical sides, decorated with incised lines. The lantern rests on three small feet. All three are moulded, and two are of copper alloy while the third is made of lead. The latter is obviously a repair. In the centre of the base is a hole through which a lamp could be inserted from below.

Diameter: 14.3 cm.

The Roman bronze lanterns have been published by Feugère and Garbsch (1993). They distinguished two types which are different in date. The difference lies in the placing of the burner. It may be inserted from beneath or from above. The former type, which is also the example from Winsum, is the earlier and may be dated from c. 50 BC to AD 50. Lanterns are known from rich graves in Gaul but also from the site of Magdalensberg and from Haltern (Feugère & Garbsch, 1993: pp. 167–168 and p. 178, No. 103). Many fragments of lanterns are not datable because they lack the parts that are characteristic for dating. These lanterns were found in numerous sites from Pompeii to Scotland.

Date: 50 BC–50 AD.

16. Silver pin with pointed end WB 97.1157 (5/3).

The pin is silver and has a tapering shaft of circular section. The upper part of the pin is finely decorated with a series of transverse ribs and ends in a small knob.

The pin may have served for surgical or cosmetic use. Most surgical instruments were made of copper alloy, which is much stronger than silver. Silver was used for a toothpick (Riha, 1986: p. 28 and Pl. 9) and a stylus (Künzl, 1982: p. 26 and fig. 88.1). Pins used for treating cataract are sharp but not thin (Künzl, 1982: pp. 26–27) and anyway the soft silver is not a very likely material for this type of pin. However, the fact that the pin was found in the same area as a palette that also may have been used for medical purposes (see below) may argue for its use as a medical instrument. The pin may be classified as a surgical instrument of unknown use; cf. (Riha, 1986: pp. 86–87 and Pl. 60, No. 666), a pin with the same ribbed decoration of the upper shaft and pointed lower end.

Length: 15 cm.

Date: Roman period.

17. Stone tablet WB 97.1150 (5/3).

Bevelled rectangular palette of limestone with a dark grey colour. Dimensions: 8×5×1.2 cm.

These rectangular palettes were used for making ointments but they were also used for cosmetic preparations. The palettes are found in civilian as well as military sites (Riha, 1986: p. 44) and in funerary contexts (Künzl, 1982). In military contexts, these palettes are known from the Augustan and Tiberian camps at Haltern (Loeschke, 1909: pl. 38.24 and p. 374) and Hofheim (Ritterling, 1912: pl. 16.12). Their civilian context is attested by finds from Augst, where a number were found in different shapes (Riha, 1986: pp. 43–49). The palettes are often found in graves (Künzl, 1982: p. 5; Riha, 1986: p. 44, note 104) and one example still has its bronze case (Riha, 1986: pp. 43–55, fig. 17).

Date: Roman period.

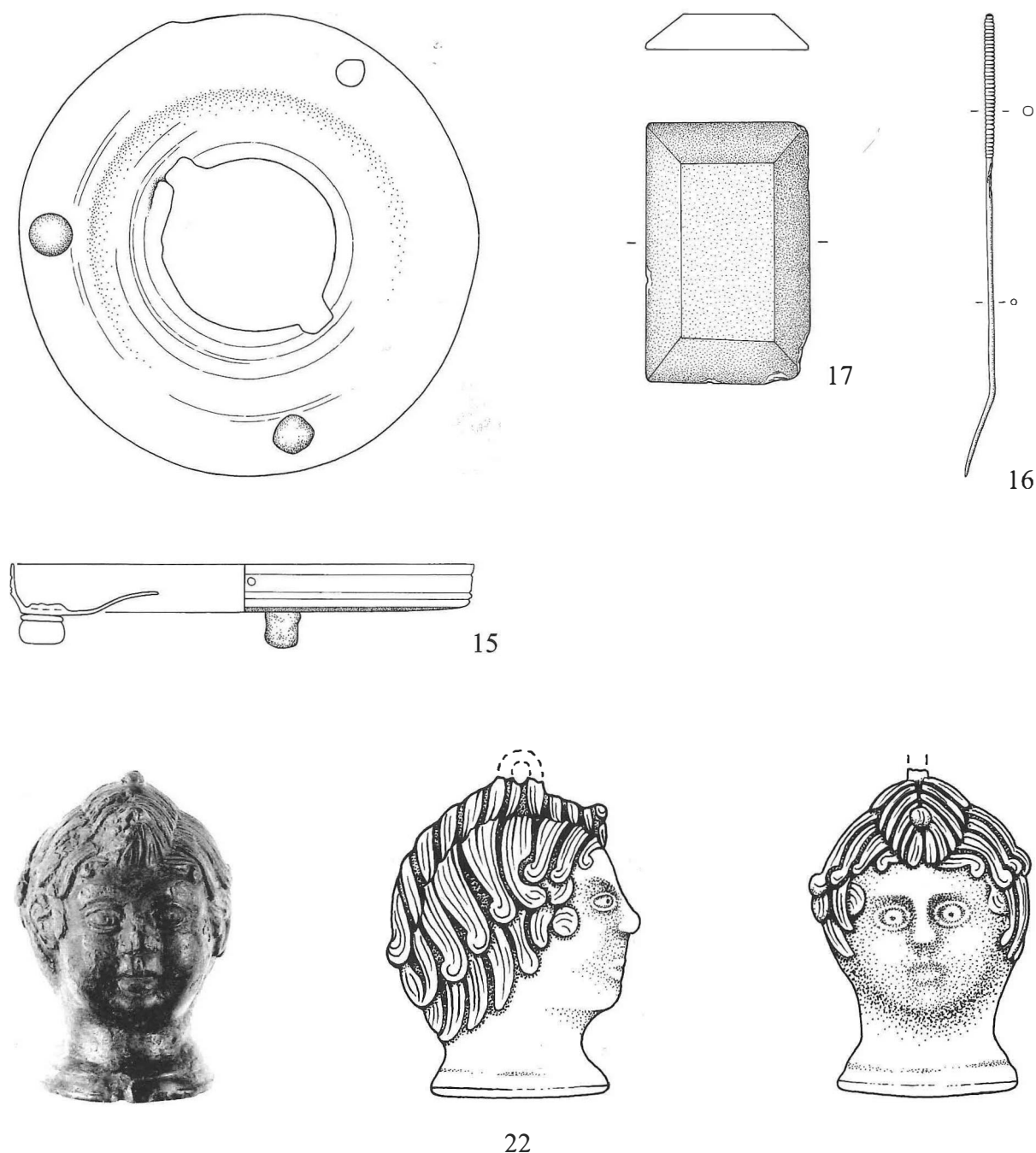


Fig. 4. Bronze lantern base, scale 1:2; silver pin, stone tablet and bronze steelyard weight, scale 1:1. The figures refer to the catalogue numbers.

18. Glass fragment WB 97/1242 (7/1).

Fragment of variegated glass with a marbled pattern, dark purple and white in colour.

Dimensions: 3×2×0.5 cm.

The tiny fragment of mould-pressed glass belongs to the polychrome wares and more precisely to the so-called millefiori glass with a marbled pattern (Hawkes & Hull, 1947: pp. 292–294). Similar glass fragments are known from Camulodunum (Hawkes & Hull, 1947: p. 292), and from military sites in Germany such

as Haltern (Loeschke, 1909: Pl. 38, 18 and p. 373) and Hofheim (Ritterling, 1912: p. 364). A similar fragment is known from the oppidum Staré Hradisko on the Danube, which predates the middle of the first century AD (Kolník, 1991: p. 80 and fig. 4: 5, 6 and 8). According to Isings, mould-pressed glass was often used for deep and shallow bowls and in the marbled techniques shallow bowls are more frequent (Isings, 1957: pp. 15–16).

Date: first century AD.

19. Wooden stave-built bucket with three iron hoops WB 97.1065 (5/2).

The iron hoops are numbered from top to bottom: 97.1065 (hoop 1); 97.1082 (hoop 2) and 97.1083 (hoop 3). A soil sample and a botanical sample were taken. The botanical sample (WB 97.1071) was taken from within this vessel (97.1065). The samples have not yet been analysed.

The vessel is composed of 18 staves of yew and was originally bound with three metal hoops. A narrow groove was cut into the lower end of each stave, to accommodate the bottom. The bucket tapers slightly towards the top. The iron hoops appear to have been semi-circular in section and the impressions on the wood indicate that they were approximately 1.4 cm wide. The hoops are heavily corroded and at regular distances show a thickening, which may have been a hemispherical decoration. Three holes in the upper part of the staves still show the remains of iron nails. The round heads of these nails are still in position in the interior of the vessel; their diameter is 2.3 cm. Below these holes, on the exterior of the vessel, the shallow impressions of two semicircles are still visible. These may be the remains of handle attachments (see the reconstruction on the drawing of the vessel). The bottom of the bucket is made of four pieces which are joined together with a doweled construction. The buckets have been restored, during which the iron hoops were replaced by wooden rods, which are semi-circular in section. The interior of the bucket is shiny and dark brown in colour but the upper six centimetres are dull and lighter brown in colour as is the exterior of the bucket.

The length of the staves is c. 36.6 cm. Their width varies from 9 cm to 3.5 cm. The bucket's diameter on the upper edge is 40.5 cm and at the bottom 45.5 cm. The staves are c. 1 cm thick.

Stave-built vessels, ranging from large barrels to small tankards, are common on Roman sites in Britain and according to Earwood (1993: p. 76) they are extremely uniform in both type and design. One Roman example from Newstead measures about 30 cm in height and the diameter of the upper edge is 26.5 cm. The buckets from Winsum are larger and are also different in form, they slightly taper towards the upper edge so that the difference in diameter between upper edge and bottom is 5 cm.

Two Roman buckets from Haltern are c. 26 cm in height and their diameter is c. 27 cm. Their measurements are comparable to those of the buckets from England. They have straight walls and were made of bentwood, one of these was made of oak. The finely split wood was bent and held together with iron nails. They may have served as a *modius* (Sander, 1992: p. 138, note 19 and p. 156, Nos 128–129). The same function has been suggested for a wooden stave-built bucket with iron hoops from Pompeii. This measures 28 cm in height and 25 cm in diameter at the top. This bucket tapers towards the bottom (Di Pasquale, 1999a: No. 301 and pp. 224–225). It is interesting to note that the only *modius* we know is a bronze bucket with sides tapering towards the top, like the buckets from Winsum. It was discovered in Carvoran and dates to the period of Emperor Domitian (Johnson, 1989: pp. 27–28). If the buckets from Winsum are indeed Roman vessels, they may have been used as *modii*.

In the Roman period various types of wood were used. Fragments of a stave-built vessel, made of silver fir, are known from Roman London. This vessel was a coopered tub, which was closed at both ends. Silver fir and larch were often used for this kind of container and according to Weeks and Rhodes (1986: pp. 230–231) this material may have been produced in the Alpine region. Wooden stave-built vessels made of yew and tapering towards the top may have been in use already in the Celtic sphere, in the first century BC. This type of vessel seems to have had a very long life; it was still used in the nineteenth century (Bodewes,

1981: p. 43). The best comparison may be found in vessels dating to the fifth and sixth centuries AD. The stave-built buckets from Sutton Hoo are much like the Winsum buckets (Earwood, 1993: figs 48 and 50). Similar buckets are also known from the Netherlands, from the Frankish cemetery in Rhenen where two wooden buckets were found in graves dating to the fifth and sixth century respectively (Ypey, 1973: figs 4b and 9). A sample of the wood of one of the buckets (WB 97.1235) was taken to date the buckets. The radiocarbon date is 1850±40 BP (GrA-21375), with calibrated ranges of, at one sigma, AD 127–231 and at two sigma, AD 75–245 or AD 307–315. This means that the buckets date to the Roman period.

To date the vessels more precisely, their context has also been examined. Although the excavation has not yet been published, some preliminary remarks may be made. The two buckets were found in the same trench and at the same depth. They were not found in the same spot. One was found in trench 5 and the other in the northern section of trench 5. However, they were not far apart. In one of the buckets (WB 97.1065) two sherds of native pottery were discovered (WB 97.1073), which date to the Roman period according to Dr E. Taayke (personal communication). The bucket from the section (WB 97.1235) lay just above the sandy natural soil. The same layer and the layer overlying it contained native pottery. This pottery was identified as native pottery dating to the Iron Age and the Roman period (personal communication E. Taayke).

The radiocarbon date combined with the date of the native pottery seems to lead to a date in the first or second century AD.

20. Bucket made of yew WB 97.1235 (5/section west).

Apart from the bucket, remains of corroded iron hoops were found and among them may be parts of semi-circular handles, made of iron. Among these remains was a small piece of bone from sheep/goat.

The bucket is made of yew and is composed of 23 staves. A narrow groove was cut into the lower end of each stave to accommodate the bottom of the vessel, made of four pieces. The bucket tapers slightly towards the top. The iron hoops appear to have been semi-circular in section and the impressions on the wood indicate that they were approximately 1.3 cm wide. Parts of the severely corroded hoops have been recovered, and among them are fragments of semi-circular iron handles which are of the same section, material and form as the hoops. Near the upper end of the staves four holes are visible and on the interior the iron nail heads or impressions of the heads, measuring 2.4 cm in diameter, are still in place. On one side of the bucket, just above the four holes, two more holes are visible. Each hole has a rectangular impression around it and on the interior of the bucket the impression of the head of the nail is visible, with a diameter of 2 cm. The interior of the bucket is shiny dark brown in colour, while the exterior is dull and lighter brown in colour.

For further comments, see the bucket, No. 19.

Height: 38.5 cm; rim diameter 39 cm. Base diameter 44 cm. The staves vary in width from 1.5 to 7.5 cm.

Date: Roman.

Publication: the bucket was published by Kramer (2000: pp. 238–240).

21. *Tegula* 97.1035 (4/section north)

Fragment of Roman *tegula* with flange.

Dimensions: 9×11×3 cm.

Roman *tegulae* are known from the province of Friesland, both from Hatsum and from Wijnaldum (Galestin, 1999a: pp. 159–160 and fig. 3). The *tegulae* from Wijnaldum were not found in Ro-

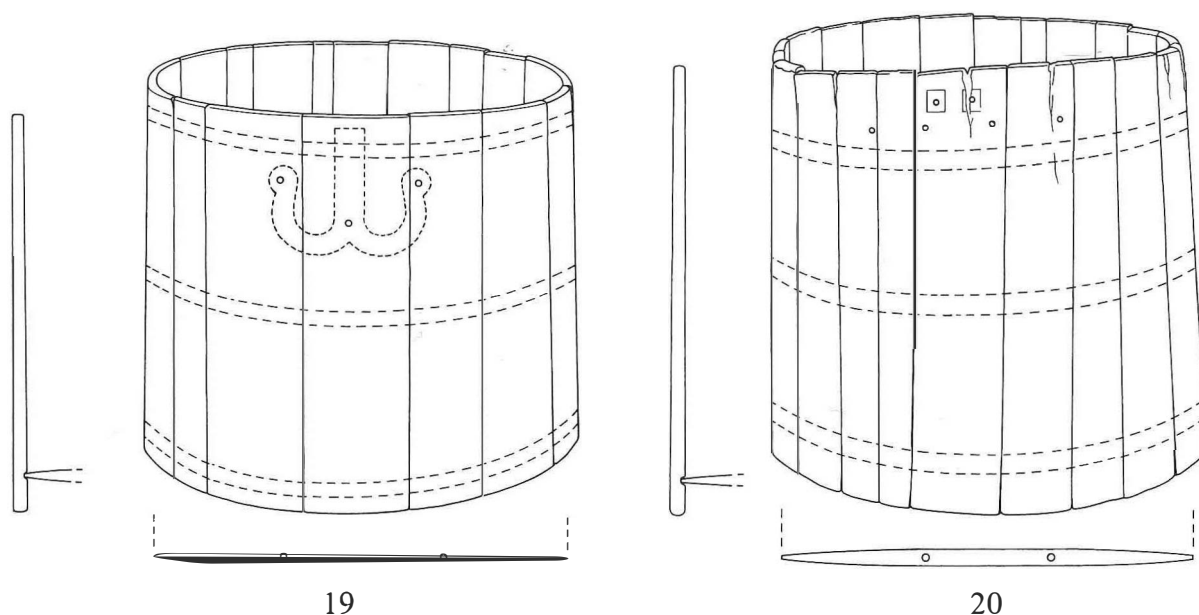


Fig. 5. Wooden buckets, scale 1:8. The figures refer to the catalogue numbers.

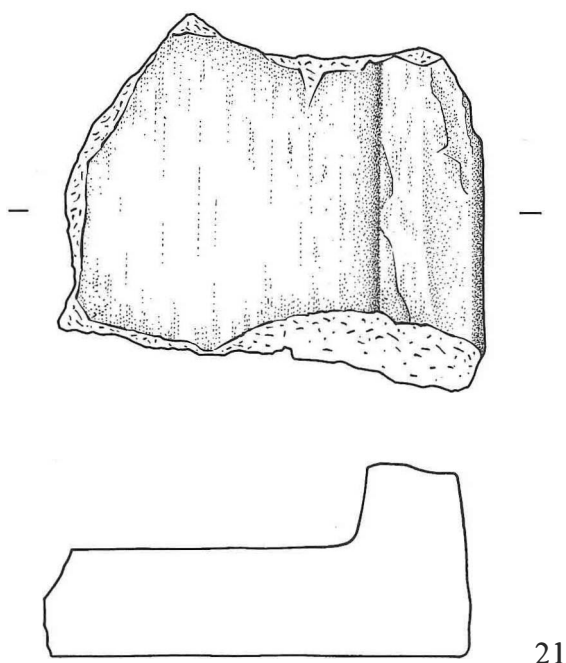


Fig. 6. Tile, scale 1:2. The figures refer to the catalogue number.

man contexts and it was considered possible that the tiles arrived after the Roman period. On the other hand, in Hatsum, a few km north of Winsum, a *tegula* fragment was found in the wall of an Iron Age farmhouse and hundreds of fragments are said to have been found there in the nineteenth century (Galestin, 1991). Therefore the presence of a Roman tile at Winsum does not come as a surprise. The question is whether the tiles were brought to Fries-

land in the Roman period or in later times, when they were taken from the ruins of the Roman castella along the Rhine. Date: second or third century AD.

4.2. Two Roman bronze objects, discovered after the excavation on the site

The following objects, a steelyard weight and a brooch, were not discovered during the excavation but were found by an amateur archaeologist, after the site had been excavated and while it was being prepared for building houses. The weight was found on the site of the excavation; the brooch was found to the west of a recently demolished farmhouse.

22. Bronze steelyard weight in the form of a boy's head. Counterweight of a Roman steelyard. The head is made of bronze and is filled with a different substance, probably lead. The youthful head has full cheeks, large eyes drawn with engraved lines and a dot indicating the pupil. The hair is arranged in small locks and a plait runs across the head from back to front. On top of the head are the remains of a small loop. The neck ends in a slightly flaring, moulded rim.

Height: 5 cm. Weight: 243,1 grams.

Publication: Galestin (1999b: pp. 218–219).

Roman steelyards and steelyard weights are known from Pompeii (Di Pasquale, 1999b: pp. 283–285 and Nos 364–377). Norbert Franken in his book *Aequipondia* lists some seventy Imperial Roman steelyard weights in the form of a human head (Franken, 1994: p. 67). The majority of the weights in the form of a human head date to the period mid first century BC to mid first century AD and in this period a very precise dating is not possible (Franken, 1994: p. 71). The heads of small children often have a typical hairstyle, often with curly locks and a plait across the head (Franken, 1994: p. 75). The heads of children have com-

mon traits in the hairdo, but they differ in style. Although no heads with an identical style were found, some comparable heads may be found with Franken (1994: 6.2.5 *Kinder* and more recent by Franken, 1996: pp. 67–71) who kindly drew my attention to the example published in Marini Calvini (2000: No. 124).
Date: early first century AD.

23. Eye-brooch (private collection).

Eye-brooch with pierced eyes which are opened sideways. The brooch is corroded and has not been cleaned.

Length: 5 cm.

The type belongs to the early type (a 1), cf. No. 2 above.

Date: Augustan/Tiberian period.

5. DISCUSSION

The catalogue of the Roman metal and other finds from Winsum comprises objects of different dates and types. The majority of the finds date to the first century; they vary in type but all may be related to the Roman military activities in northwestern Europe. The second- and third-century objects, on the other hand, show less variety, most of these are brooches. They seem to be associated with contacts of a different kind. These later objects are not exclusive to Winsum but fit in with the large body of Roman finds from the *terpen* in Friesland. First-century objects are seldom found in Friesland and therefore we shall concentrate on the first-century objects from Winsum.

The question is whether the first-century finds are the result of military presence or not. Are these finds related to a Roman military context or are they to be placed in an entirely native site, as gifts or as booty from a deserted castellum or a stranded Roman ship? The number and variety of the finds seem to exclude the second possibility. In native sites the number of Roman objects is different from the finds from Winsum. Compare for instance the finds from native sites near the Roman camp at Velsen (Bosman, 1997: pp. 92–93) The same is true for native graves containing Roman objects such as a set of amphorae or surgical objects. These items were not found associated with a variety of other Roman objects. Therefore the Winsum assemblage may relate to Roman military presence. The presence of native pottery at Winsum does not invalidate this hypothesis because native pottery is a common occurrence in early military sites, such as Velsen I (Bosman, 1997: pp. 120–122) and Vechten.

Winsum was first interpreted as a military site. This idea has been doubted because of the lack of military finds and remains of a castellum. Given the number of early Roman finds, Winsum may now again be interpreted as a Roman military site. Although no remains of a camp have been detected, the historical context of the early first century AD supports the idea of military presence on the North Sea

coast. Roman activity on the site may have started as a purely military enterprise which later on became a post for collecting taxes. It is comparable to Bentumersiel on the Ems, which also may have had a semi-military function.

5.1. Winsum

The situation in Friesland when the Romans first arrived in the early Roman period is difficult to reconstruct. Little is known of the habitation on the *terp* of Winsum and the excavation did not yield evidence on this point, although the details of the excavation have not yet been worked out. It is known that the site was a *terp*, a raised dwelling place, and that habitation may have started in the earliest period of settlement in the area, probably in the sixth century BC. This is suggested by the presence of pottery from this period (Taayke, 1990: figs 1, 7) and it is confirmed by the excavation which brought to light native pottery of the Iron Age (in the lowest stratum of trench 5). Furthermore, in 1972 fragments of early native pottery, of the type *Ruinen-Wommels I*, was found near the place of the excavation, in the village of Winsum itself (Elzinga, 1973: pp. 140–141). This type of pottery dates to the period 600–350 BC.

In its earliest phase of occupation Winsum had not yet developed into a *terp* but it was situated on a natural ridge in the salt-marsh (in German: *Flachsiedlung*). In the fourth century BC it became necessary to build a *terp* against the water and from this period onward many *terpen* were built in Friesland. By the Roman period, their number had grown to circa 300 in the area west of Winsum, measuring 10x20 km (Taayke, 1990: pp. 190–191 and fig. 61). This large number of *terpen* in relation to the available land has led to the conclusion that these small mounds did not accommodate a large number of houses but just one or two farms on each *terp*. Village *terpen* with several farmhouses like for instance the *terp* of Ezinge (prov. Groningen) must have been an exception in this area of Friesland (Taayke, 1991: p. 114). This conclusion seems to be confirmed by the excavations at Wijnaldum, a *terp* in northwestern Friesland where habitation started in the second century AD. In the first period (c. AD 175–300/350) two platforms of sods were constructed on which two houses were built (Gerrets & De Koning, 1999: pp. 98–99 and figs 4, 6). Near one of the houses, bronze-casting activities took place (Gerrets & De Koning, 1999: pp. 96, 118) and also iron working (Nijboer & Tulp, 1997). Although the platform was enlarged, it is difficult to say whether we are dealing with separate house *terpen* or with a larger complex with several buildings (Gerrets & De Koning, 1999: p. 99). In Wijnaldum several small *terpen* may have existed, with one or two farmhouses and situated at short

distances from each other (Gerrets, 1999: p. 333). A similar pattern can be detected in the distribution of Roman finds in Friesland. *Terpen* with large numbers of second- and third-century Roman finds often have other *terpen* with Roman finds near by (Galestin, 1992: pp. 26–29; Galestin, 1997b: pp. 127–128). As far as we know, Winsum did not belong to one of these clusters but at a short distance north of Winsum, there were two *terpen* with Roman finds, Hatsum I and II. Hatsum I is the *terp* with the largest number of Roman finds in Friesland and the number of *terra sigillata* sherds equals the amount of *sigillata* discovered at Rijswijk, a native villa south of the Roman border (Galestin, 1997a: p. 349). The *terp* Hatsum I is situated circa 5 kms to the north of Winsum. A second site, c. 10 kms north of Winsum, is Beetgum and here the well-known Hludana votive stone was found. This votive relief dates to the third century and bears an inscription of Roman *conductores piscatus* (Galestin, 1997a: p. 352). This inscription may point to a system of Roman tax farming in Friesland. The *terp* of Winsum did not yield as many sherds of *terra sigillata* as many other *terpen* did, but it is known for a third century hoard of Roman coins (Van der Vin, 1992: pp. 134–135, No. 233; Galestin, 2001: p. 94) and for a silver hoard which probably dated to the fourth century AD (Galestin, 1993). The conclusion may be that in the early Roman period Winsum was an important site and although we are not well informed about the second and third centuries in Winsum, some very rich *terpen* were situated at a short distance. In the fourth century Winsum may well have regained its importance.

5.2. Winsum and water

Winsum occupied a relatively favourable position compared to the many other *terpen* in its surroundings. The *terp* was situated on a salt-marsh ridge which was a little higher than the ridges on which the other *terpen* were situated (Vos, 1999: pp. 39–41). Its position in a densely populated area with a large number of farms, probably all with cattle, must have made Winsum a favourable site for the Romans. The area provided a number of potential tax payers (hides) and young men eager (or forced) to be recruited into the Roman army instead of having to share the available farmland.

Winsum also may have had a favourable position in terms of fresh-water supply. This was a very important factor for the people living in the area because fresh water was a problem in the salt-marsh district. On a number of *terpen* provisions to collect the rain water have been attested. This was the only way to obtain a supply of fresh water. Winsum was situated on one of the rivers which drained the higher land southeast of Winsum, the river Boorne. Since the

distance from Winsum to the salt water of the Wadden Sea was about 7 km there probably was no threat to the fresh-water supply by the river Boorne. Nearer to the Wadden Sea the water might have been brackish. This situation may be compared to those at Bentumersiel and Boomborg in Germany. Bentumersiel was about 20 km from the mouth of the Ems and had completely fresh water. Boomborg, which was much nearer to the mouth of the Ems, still could dispose of fresh water. Analysis of the various plant remains has shown that the water of the river Ems was still fresh at Bentumersiel and Boomborg, whereas further north the influence of the sea must have produced a more brackish environment (Behre, 1984: p. 94).

5.3. Shipping routes from the Rhine to the northern shores

Although fresh water must have been an important factor, the supply route must have been even more important for the Romans and Winsum probably had both. In the early first century a direct connection with the Wadden Sea may still have existed in the form of the mouth of the river Boorne into the Wadden Sea which originally had the shape of a funnel with the estuary ending at Winsum. This funnel became smaller, but remained a tidal area and the creeks were probably important shipping routes, connecting the hinterland with the sea (Vos, 1999: p. 63). Small local rivers and the river Boorne may have one of them, discharging into this basin and drained the hinterland but according to Vos (1999: p. 59) local riverbeds dating to the Iron Age and the Roman Period are difficult to detect because “their channel fills do not show obvious differences with the surrounding sediment”.

From the Wadden Sea various connections may have existed to the river Rhine. In the Roman period at least four routes were possible: two interior routes, via the IJsselmeer (then Lake Flevo), and two across the North Sea (fig. 7). The North Sea could be reached through a gap between the Frisian Isles and from the North Sea the Rhine could be reached in two ways. Via the mouth of the Rhine which at that time was near Katwijk, and via the Oer IJ estuary where Tiberian Velsen was situated, and on across Lake Flevo. The interior route went via the western part of the Wadden Sea where a passage existed, which connected the Wadden Sea with Lake Flevo. This passage became larger around the turn of the Christian era (Vos, 1999: p. 63). This route avoided the North Sea and made it possible for smaller ships with shallow draught to reach the northern shores. Two possible shipping-routes existed from Lake Flevo to the Rhine. One went via the river Vecht (the so-called Utrechtse Vecht) to Vechten and the other via the river IJssel to Meinerswijk near Arnhem. These two



Fig. 7. Map of the Netherlands with shipping routes to the north. 1. Bentumersiel; 2. Winsum; 3. Velsen; 4. Vechten; 5. Meinerswijk; 6. Nijmegen; 7. Katwijk.

routes have been the subject of serious debate because both have been identified as the *Fossa Drusiana*, the improved connection between the Rhine and the Ocean, a canal made by Drusus which was later used by his son Germanicus (*fossam, cui Drusianae nomen*) and mentioned by Tacitus (*Annals* II,8,1) and by Suetonius (*Claudius* 1, 2–4). This canal is often identified as a connection between the Rhine and Vecht (Wells, 1972: p. 111; Goetz & Welwei, 1995: p. 23, note 54) but others see it as a link between the Rhine and the river IJssel (Willems, 1981: pp. 56–61; Bechert & Willems, 1995: pp. 24–25, fig. 17). Although it cannot be ascertained which was the *Fossa Drusiana*, both the IJssel and the Vecht may have been shipping routes from the Rhine to Lake Flevo in the Roman period.

5.4. Roman ships

The shipping route determined the type of ship that could be used. For the Romans in northwestern Europe there were mainly two types of ship. Ships with a keel which could be used on rivers and on the open sea and flat-bottomed craft which were used in shallow waters. Although both types seem to have been used for river transport, the flat-bottomed cargo ships which had a broad bow and stern and were accessible from both ends were preferable for rivers like

the Lippe (Bremer, 2001: pp. 95, 69). This type of ship was also best suited for transport of bulk goods but the keeled ships which had a rounded stern were also used for the transport of goods (Bremer, 2001: p. 63).

Ships with a flat bottom are known from the Netherlands and in particular from Zwammerdam, but one ship was also found at Vechten. Eleven vessels of this type are known from northwestern Europe and although this type of craft is not known from the Augustan period, it may according to Bremer (2001: p. 65) also have been used by the Roman troops for the transport of goods along the Lippe. These ships could sail, but upstream they had to be towed by men or by horses. These cargo ships with a flat bottom will have had a small crew, possibly six, and could transport approximately fifty tonnes. At Haltern and Velsen, in the Tiberian period, different embankments were made in order to accommodate both military and other ships of local or non-military use (Morel, 1991: p. 164). Ships with a flat bottom may also have been used to transport goods to Velsen in this period. Morel (1991: p. 165) has shown that the same type of military harbour with embankments is found at Haltern-Hofestatt, at Anreppen and in Velsen I.

The use of different ships for different purposes is also attested by the passage in Tacitus (*Annals* II.6) where the Romans had ships of different form built for different purposes: short and broad ships with a round bow and stern to resist the waves; ships with a flat keel to diminish the damage; ships with a rudder at both ends to be highly manoeuvrable and ships with a deck to accommodate not only horses and provisions but also artillery. This type of ship may have been used by the Romans from their earliest activities reconnoitring the North. Drusus sailed to the North in 12 BC and when they returned they ran aground (Dio Cassius *Roman History* 54.33.1–3). Tiberius and his army met up with the Roman fleet that had sailed up the Elbe in AD 5 (Velleius Paterculus, *Roman History* 2.104.3–108.1) while Tacitus (*Annals* II.23–24) reports the drowning of men and horses when Roman ships sailing from the Ems into the Ocean encountered a storm. This was in AD 15, when Germanicus returned to his winter camps. These passages illustrate the use of ships for the transport of troops and their horses. These must have been sea-going ships which may have been more stable, allowing the transport of live-stock over great distances, and also able to sail the Elbe.

6. CONCLUSION

The Roman artefacts discovered at Winsum illustrate the importance of Winsum in the early first century AD. It is clear that Winsum was an important link on the shipping route between the Rhine and the Ems.

In spite of the fact that the excavation did not uncover any features relating to an army camp, the finds point to military presence. Romans were around at Winsum in the early first century AD, and maybe even before, and also in the succeeding period when the Frisian territory was incorporated in the Roman Empire. The early Roman assemblage discovered at Winsum is not replicated at other sites in Friesland, and this makes Winsum an unique site in Friesland in the early first century AD. Later Roman objects, on the other hand, are not uncommon in Friesland. They show that contacts between Frisians and Romans existed in the second and third centuries on a large scale, as is clear from the numerous finds from many *terpen*.

7. ACKNOWLEDGEMENTS

The author wishes to thank the following people who were involved in the excavation and the post-excavation work. The excavation team: Dr. J.M. Bos, Drs. M.J.L.Th. Niekus and Drs. T.B. Volkers. Thanks are also due to J.H. Zwier (field drawings), K. Klaassens (field technician). The post-excavation workers: Drs. T.B. Volkers who composed a database of all excavated finds and K. van der Ploeg who made the documentation accessible. The drawings were made by M.A. Los-Weijns, J.M. Smit and J.H. Zwier. Special thanks are due to Dr N. Franken (Bonn) for providing information on the steelyard weight, to Drs. C. Koopstra who cleaned and conserved the metal finds, to Dr. E. Taayke who gave information on native pottery and to Drs. E. Kramer (Fries Museum, Leeuwarden) who gave permission to study the two buckets. I am most grateful to Drs. A.C. Bardet for correcting the English text, to Dr. J. van der Plicht (University of Groningen, Centre for Isotope Research) for the radiocarbon date and to Drs. J.N. Lanting for his help in the procurement and interpretation of the radiocarbon date.

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