The Roman Dagger and Belt Fittings from Velsen, Netherlands

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One of the wells at the early Roman site Velsen I (North Holland) contained the complete skeleton of a man 1.90 m tall; the man was evidently fully clothed and was accompanied by his dagger, sheath and belt. The unusual nature of this burial suggests that it occurred in some haste and it may perhaps be related to the events surrounding the Frisian rebellion of AD28, when the Romans were compelled to retreat. It is the accompanying dagger, sheath and belt which give this burial its particular importance and here we will concentrate on the description and technical construction of the equipment[1].

The set is composed of three separate items: A) the dagger, B) the sheath, C) the belt fittings.

A. The Dagger (Fig. 1)[2]

The dagger is incomplete, lacking much of its shoulder and the tang, though the top of the antler/bone grip is preserved as are two other rivets.

A1. The blade (surviving length 23.05 cm, surviving width 5.7 cm, original dimensions 23.5 × 6.3 cm; max. thickness of the blade 0.23 cm, of the rib 0.38 cm). The cutting edge is slightly chipped and the surface is lightly pitted by corrosion. The blade has a central midrib, the back and front placed slightly out of alignment, with lines of silver damascening of the core visible along both sides.

A2. The tang. No trace now remains of the tang or the grip, though the fragmentary top plate does suggest that it may all once have been present in the well. The bone/antler plate (3.96 × 1.28 × 0.43/53 cm) has three silver rivets placed somewhat asymmetrically. The rounded rivet heads are 0.49–0.57 cm in diameter. A groove around the edge of the plate is almost entirely worn away on one side; this is presumably the back, where the dagger rubbed against the wearer.

A3, A4. Two loose silver rivets probably belong to the grip (length 1.83 cm, diameter of heads 0.58 cm, of shafts 0.15 cm). The ends of the shafts are clenched, leaving 1.29 cm between the head and the bent end.

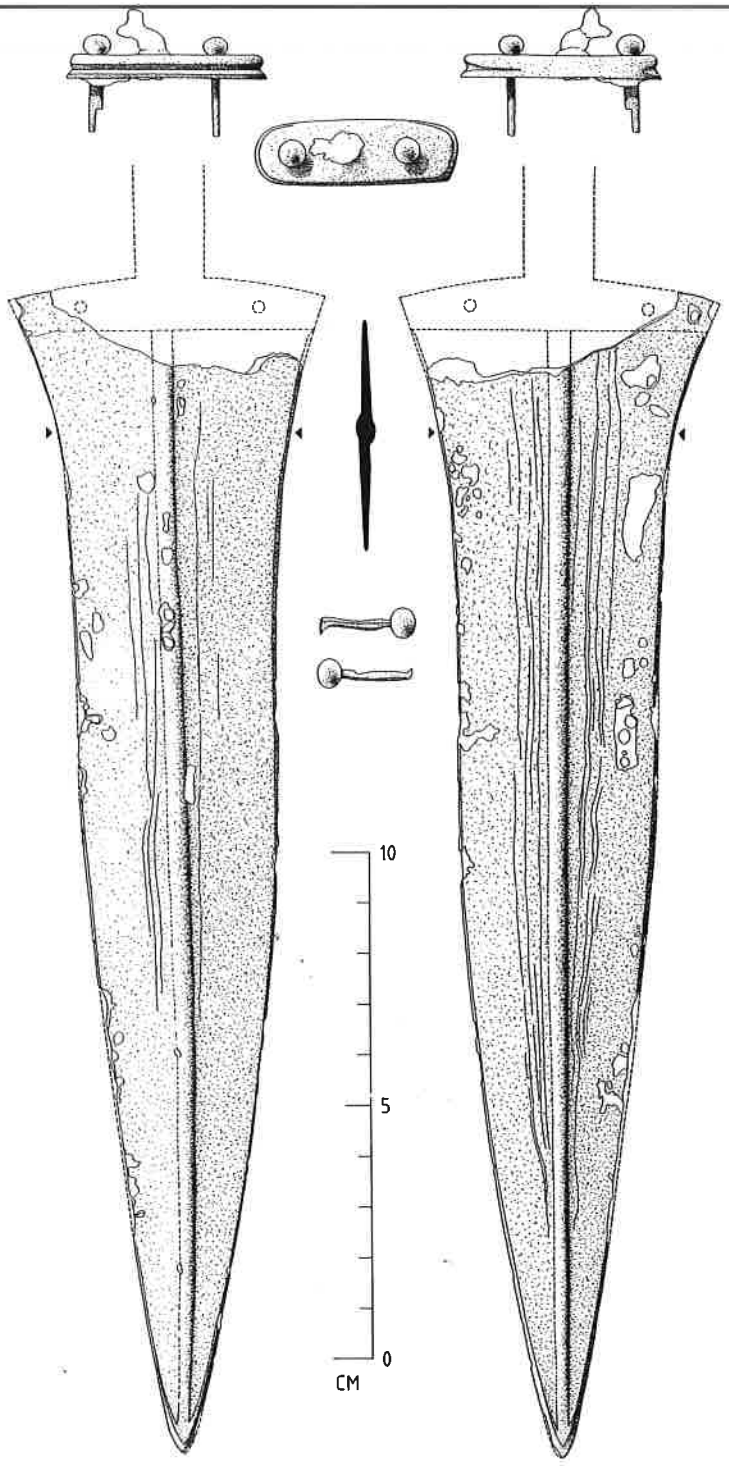

Fig. 1. Dagger blade.

B. The Sheath (Fig. 2)[3]

Of the sheath there remains 1) the major part of the front plate with its four suspension loops, 2) a small fragment of the rounded terminal and 3) a large silver disc, also probably from the terminal.

B1. The iron sheath plate is still 20.05 cm long and about 0.18 cm thick. The front is decorated with silver, red and yellow enamel and niello, probably applied in that order. On Fig. 6, light stippling indicates yellow enamel, darker stippling red enamel. The decoration is edged by a broad silver band, and is divided into the usual four zones, the upper more or less rectangular, the lowest, triangular. A fifth zone is formed by the round terminal.

Zone 1 is damaged along the top, but a line of niello set with minute silver oak leaves is still discernible. The central motif is a temple with four steps indicated in alternating niello, red and yellow enamel. Two bands of red enamel, separated by silver lines form the top edge of the pediment, which is supported by three columns, with 'fluting' indicated by a central line of yellow enamel edged on both sides by red enamel. Horizontal silver hatching fills the area between the pillars, looking rather like 'louvre' doors. Above the pediment are two triangular fields, formed of red enamel, enclosed by three silver lines and fronted by a line of red enamel and topped by a silver stud. The pediment is crowned by a semicircle of red enamel between two silver/niello lines. The background is formed of differently hatched fields of niello. Fillets of red enamel are set in the upper corners and silver studs occur in the lower corners of this zone.

The central motif of zone 2 is formed by a segmented rosette of alternating red and yellow enamel, each colour separated by three silver lines, with a silver stud at the centre. The rosette is surrounded by a wreath of minute oak leaves of alternating red and yellow enamel set in niello and outlined with silver lines and with tie ribbons below. L-shaped fillets of red enamel with silver round-headed nails fill the corners and are linked top and bottom by a niello strip containing yellow and silver dots. All the designs are outlined by silver strips. Diagonal hatching fills the remaining spaces.

Zone 3 is similar in layout, with a rosette with diamond-shaped petals radiating from a silver nail, again inlaid with alternating red and yellow enamel, outlined by a broad silver band and surrounded by hatching. L-shaped fillets with silver nails are again set in the corners, all linked by a niello strip with silver and yellow dots. Two narrow silver lines fill the space above and below the design.

Zone 4 is divided by a thin silver strip into a more or less rectangular upper part and a triangular lower section. The upper section has a complex design of silver studs, red enamel peltae, yellow enamel 'thunder bolts' and a heart-shaped pendant. Irregular and complex silver hatching fills the spaces all round. The lower section is filled by two lozenges of red enamel with a central line of niello ending in a silver stud. L-shaped fillets with silver nails are set in the corners and the background is filled with silver hatching.

Suspension loops are mounted at the sides of zones 1 and 3. That at the lower left is incomplete, the curled ends of the one at the top left are broken off, while that at the top right is bent backwards and is cemented by corrosion. The upper loops are entirely of iron with an octagonal section, the lower loops are entirely of silver with a round section. The iron hinges of the loops are attached to the back of a rectangular protrusion from the sheath and are covered by a narrow plate with simple tooling, the upper of iron (2.45 × 0.55 × 0.07 cm), the lower of silver (2.6/2.8 × 0.6 × 0.062 cm). The attachments to the sheath were also covered by lightly profiled plates, this time all of silver (3.75 × 0.95 cm, top; 3.45 × 1.00 cm, lower). Each cover-plate is fixed by three silver rivets, (diam. 0.58 cm), between which are punched circles, two of which were mis-struck.

The entire sheath is edged with round-headed silver rivets. Between the suspension loops and the lower right-hand side these are 0.36 cm in diameter and are well spaced, while elsewhere the studs are smaller (0.30 cm) and more closely set. The heads used in the decorative fields have a diameter of 0.28 cm, except for the two upper ones in zone 2 which are 0.36 cm.

B2. Only a small segment of the circular zone 5 remains. This is a corroded lump *c.* 2.5 cm long with seven studs similar to those edging the sheath. The central motif of this zone is formed by a silver disc (B3) with punched openings which are edged by narrow grooves, suggestive of an eight petalled rosette. The edges of the openings are curled over to the back. A silver rivet (length 1.70, diameter 0.61 cm) is inserted into the centre of the disc. The front surface of both the disc and the rivet looks like fine sandpaper and seems to have been deliberately roughened.

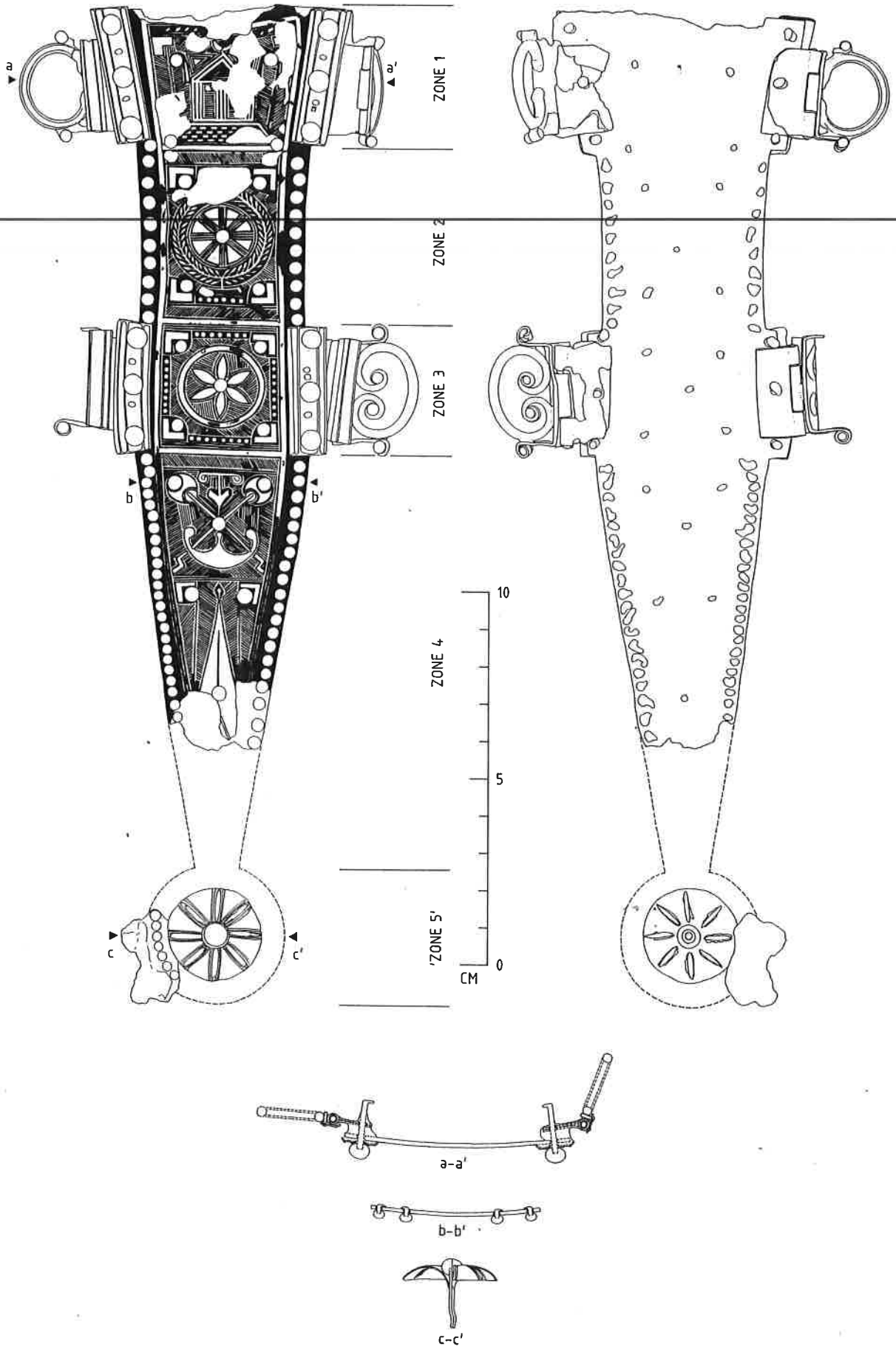

Fig. 2. Sheath.

C. The Belt Fittings (Figs. 3-4)

Only the metal elements of the belt are preserved: a buckle plate (1), two plates with suspension discs (2-3) and five individual belt plates (4-8). The plates are cast from yellow coloured copper alloy with a rough surface finish. The buckle, and the suspension discs still bear traces of worn silver-plating, as does the front surface of all of the belt plates where this is visible. In addition the plates are each covered by a thin sheet of silver foil which is simply wrapped round the front (fig. 3: silver unshaded, copper alloy shaded). All the plates are provided with four stubby attachment points at the back, cast in one with the plate itself. Circular washers punched out of thin sheet metal (diameter *c.* 0.68 cm, thickness 0.022 cm) held the leather backing.

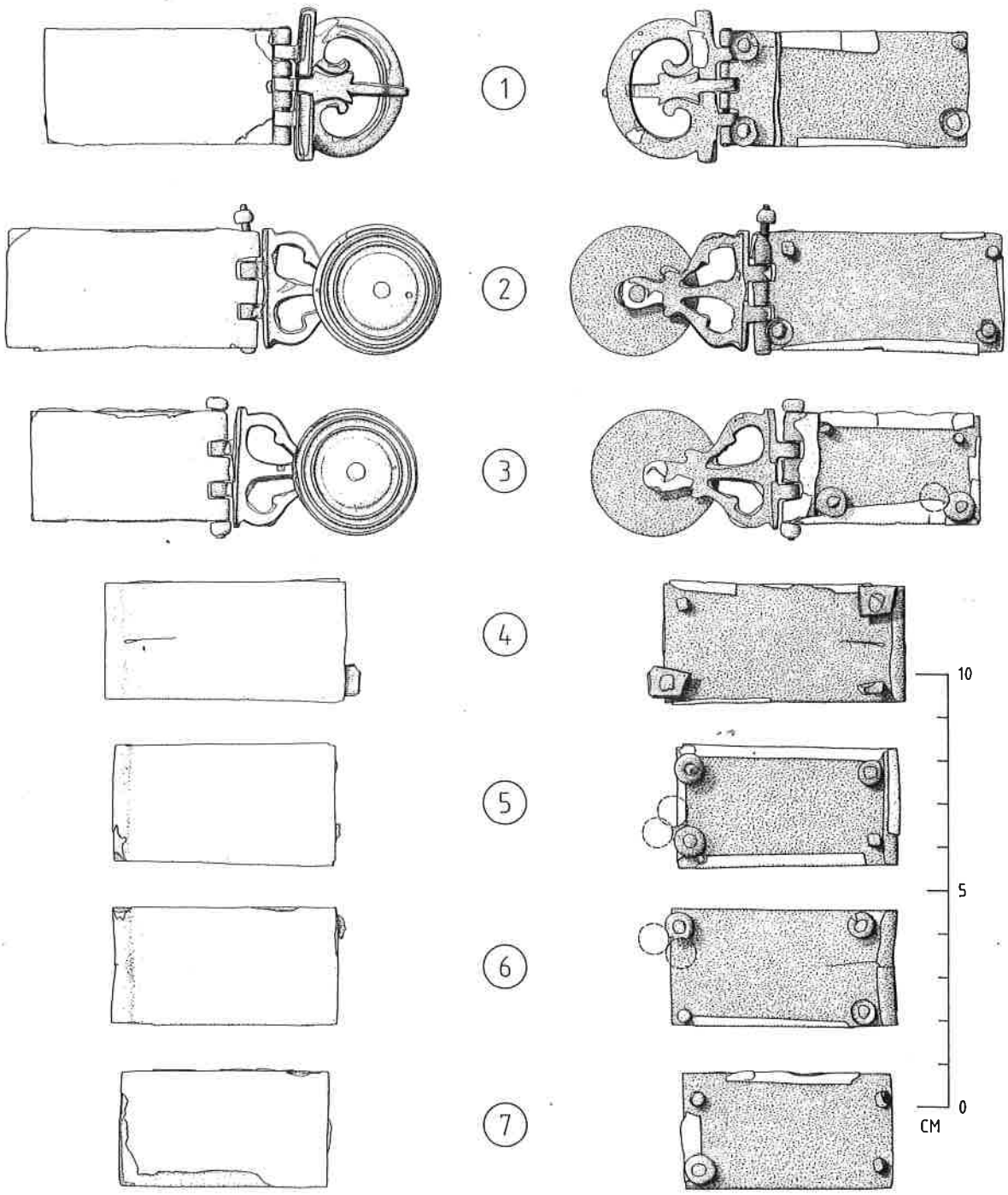

Fig. 3. Belt plates, front and back.

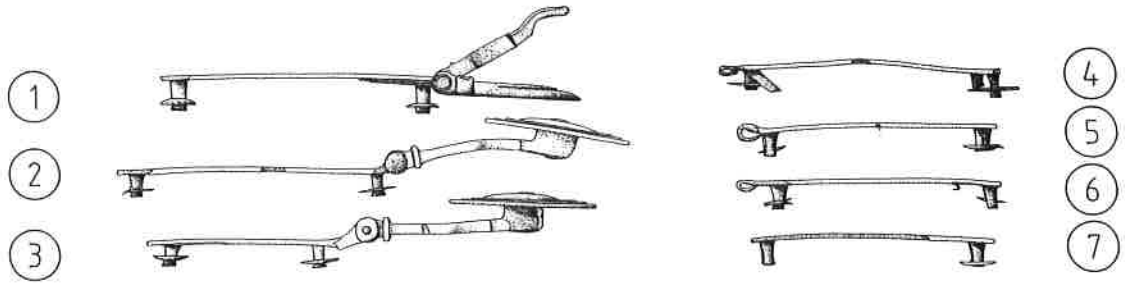

Fig. 4. Belt plates, sections.

C1. Buckle and plate (2.69×5.33 cm) with three circular washers remaining, hollow side out. The silver foil cover is worn through at the three corners, revealing the similarly worn silver plating of the front of the plate. The plate hinge is formed by a thin copper sheet folded double and sawn open. It is attached over the folded edge of the silver foil by two of the four attachment points at the back. Traces of silver plating remain in a groove around the buckle loop as well as in other recessed areas and at the back. The top of both the loop and the tongue are worn smooth. Both are joined to the hinge plate by means of a plain copper pin without stops at either end.

C2. Plate with suspension disc (2.77×5.81 cm). Two washers remain at the back, hollow side out. The hinge is formed by cutting into the plate and folding the resulting tongues back. The thin (0.01 cm) silver foil on the front covers only part of the hinge and is worn away from the top left corner as well as from the top and bottom edges. The coarsely cast belt hook is slightly out of true. Only the front has been filed smooth and silver plated. The apparent 'silvering' of the junction of the hook to the suspension disc is probably solder. The disc is of copper alloy (diameter 3.03 cm), silver plated at the front only. The plate is joined to the disc by an iron pin with roughly fashioned silver stops at each end. That at the top is so worn that the iron pin protrudes above it.

C3. Plate with suspension disc (2.55×4.62×0.07 cm). Two of the washers remain, hollow side inwards. A bite out of the edge of one of these shows that the washers were punched out very close together on the metal sheet (indicated on fig. 4). The hinge is differently constructed to C2: here the entire end of the plate is bent back and sawn out. The original length of the plate would have been 5.86 cm. The silver foil (0.014 cm) is extremely worn at the top and bottom edges, revealing the underlying silver plating. Both the silver plating and the foil extend over the full length of folded part. The belt hook and disc are the same as C2, made in the same mould, though with slight differences caused by the finishing process.

C4. Plate (2.77×5.68 cm) bent back along one of the short sides. Two washers remain at the back. These are not round like the others, but have been clipped out of copper sheet 0.048 cm thick. The silver foil is a mere 0.008 cm thick, and is severely worn along the top and the folded edge. Near the folded edge is an old crack in the metal of both the plate and the foil.

C5. Belt plate (2.80×5.21 cm) bent back along one of the short sides, with three washers still remaining, hollow sides inwards. The metal of one washer was incompletely severed, leaving a stub with the negatives of two adjoining washers (indicated on fig. 3). Silver foil 0.008 cm thick covers the front of the whole plate in such a way that it is clear that the edge was bent after the application of the foil. The foil is worn at the corners, revealing the underlying silver plate at the front.

C6. Belt plate (2.77×5.26×0.066 cm) bent back along one of the short sides. This edge is slightly warped and is, like C4, cracked, though the foil is unaffected. Three washers remain at the back, two with the hollow side inwards, the other with the domed side in. The position of two adjoining washers is visible in the edge of one of them (indicated on fig. 3). The silver foil is the same thickness as on C5, but unlike it is not folded over the bent edge. The foil is worn along all edges.

C7. Belt plate (2.74×4.91×0.09 cm). This plate is rather thicker than the others and its silver foil is also comparatively thick (0.016 cm). The foil is particularly severely worn at the front where the underlying silver plate is clearly visible. This plate is the only one not to be bent back along one edge.

C8. Belt plate (2.75×5.01 cm). This is the only plate where an additional silver plated, dome headed rivet (diam. 0.5 cm) is struck into the front. Much of the silver foil of the front is worn away, revealing a considerable amount of the underlying silver plating, which is also heavily worn at the edges. The extra rivet may have served to fix the tongue of the belt strap.

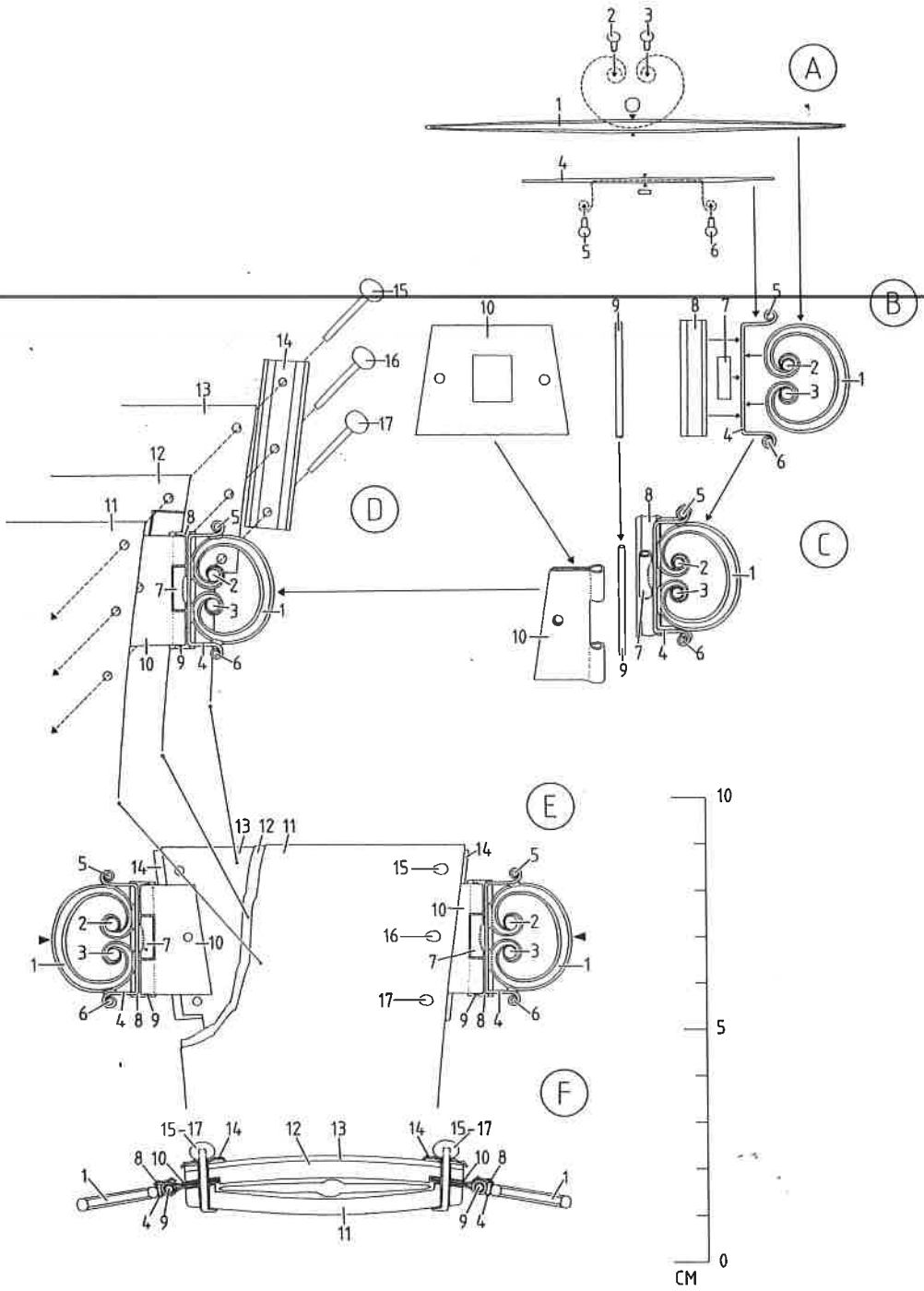

Fig. 5. Construction diagram of the sheath.

The Reconstruction of the Dagger (Fig. 6)

Although no trace of the tang was found, it may be assumed that this was flat, as is usual in early daggers, with an expanded flange at the centre and at the top[4]. The two loose rivets (A3 and A4) probably belong to the handle plates, the measurement between the head and the clenched end suggesting a thickness of 1.29 cm. If parallels are anything to go by, there would have been two rivets on the shoulder, one in the central flange and two more at the top[5]. Since no trace of the handle plates survives, it may be assumed that these were of wood, though metal or bone remain a possibility.

The actual sheath has disappeared entirely. Only the decorated iron cover plate and suspension loops remain, but these are in such good condition that a reconstruction of the entire construction may be offered (fig. 6). The remarkably fine and detailed work is particularly in evidence in the silver, yellow, red and black oak leaf wreath. This sheath must have been a valuable possession, not least because of the large number of silver rivets and the pair of silver suspension loops. The metal plate would have been mounted on a wood and leather sheath. Despite the fine appearance, the basic construction is fairly simple (fig. 5).

Bearing in mind that the upper pair of suspension loops are made of iron throughout, while the lower pair are entirely of silver, the construction of all four is identical. The loops are made in two sections (fig. 5A). Firstly, an octagonal iron, or round silver, bar (1) was curled into shape around a dome headed stud (2, 3). Secondly, the ends of a flat bar (4) (iron, 0.122 cm thick; silver, 0.086 cm) were curled around a stud (5, 6) and the bar was angled to take the first element. These, together with a hinge-cylinder (7) were soldered together (fig. 5B). A ribbed plate (8) was soldered over the front of the cylinder, as is clearly visible at one of the broken loops at the back (fig. 2, lower right). These eight pieces form a single component, of either silver or iron throughout (B). An iron pin (9) attaches the loop to the hinge plate (10), which is formed of an iron sheet folded double and cut to shape (fig. 5C). The hinged loops would not have been attached directly to the metal sheath plate (13, see fig. 2, section a–a[1]), but would be clamped between the two sides of the wooden sheath itself (11, 12, fig. 5D). This would have to be recessed to allow for the hinge (fig. 5F). A ribbed silver plate (14) rivetted to the decorated front plate with three silver studs (15–17), covers the position of the loop attachments and clenches the components of the sheath together. As the loop hinge (10) is only secured by a single rivet, some upward and downward movement of the suspension loops is possible (fig. 5E).

Daggers were worn on the left side, hung, not from the sword belt, but from a separate belt. This is shown on several of the First Century military tombstones, which also reveal that only the upper suspension loops served a practical purpose. This may explain why the upper loops at Velsen are made of (hard) iron, with (soft) silver below. The suspension on leather loops is reconstructed on fig. 6[6]. As the hooks are hinged to the belt plates, the dagger sheath was not held tightly to the body, but would give slightly with the wearer's movements.

The belt fittings would be mounted on a leather belt, held in place by the washers. The space between the plate and the washers suggests a leather thickness of *c.* 3–4 mm. The severe wear on the top and bottom edges of the plates indicates that the belt could have been no wider than the plates since the leather would otherwise have protected the metal from scuffing.

If all the components of the belt have indeed been recovered, the arrangement may be proposed as follows. The two suspension loops, with a space between for the dagger, fall on the left hip together with plate C8, which was probably placed with the additional rivet towards the perforated tongue of the leather belt. On the right, the buckle plate and four other plates would run to just over the hip, leaving the back of the belt uncovered.

Use and Dating of the Dagger

Whether daggers and their sheaths were issued as a standard item of equipment to every legionary is a matter of debate. Certain authorities regard the daggers with inlaid sheath plates as a regular item of equipment[7], while others would only consider the undecorated sheaths as such[8]. The dagger from Velsen I may be able to shed some light on the subject. If the dagger and belt were issued centrally, one would assume that matching sets would be involved. At Velsen, however, this is by no means the case. The sheath plate is beautifully finished and the softer metal elements such as the silver studs show hardly any signs of wear. This item would, therefore, seem to have been relatively 'new' at the time of loss. In sharp contrast are the belt fittings which are severely worn, especially along the edges and on the buckle. In addition, the silver foil is a later embellishment. At the outset, the belt fittings were plated on the front only, as is still visible where the overlying foil has worn off. Furthermore, it is clear that the belt plates had undergone extensive repairs and alterations as is particularly obvious on two of the plates (fig. 3.4 and 3.8) and from the differing constructions used in the hinge attachments of both of the suspension plates and of the buckle. In short, the belt gives the impression of an ill-assorted collection of salvaged bits and pieces fitted together on a single strap. The bending back of one of the short ends of three of the four belt plates could have been done to adjust their length. In its final form, the belt would seem to have consisted of assorted old pieces which were rather amateurishly brightened up by folding silver foil around the plates and the discs. The scrappy composition and the crude finish stand in marked contrast to the splendid sheath, and can only mean that the two were only brought together at a later stage. This would argue against an 'officially' issued set. I therefore share Webster's view that the decorated sheaths were individual additions to the ordinary, plain equipment issue. Even today, professional soldiers especially, possess an irresistable urge to individualise the impersonal appearance of the uniform issue by the addition of all kinds of personal details.

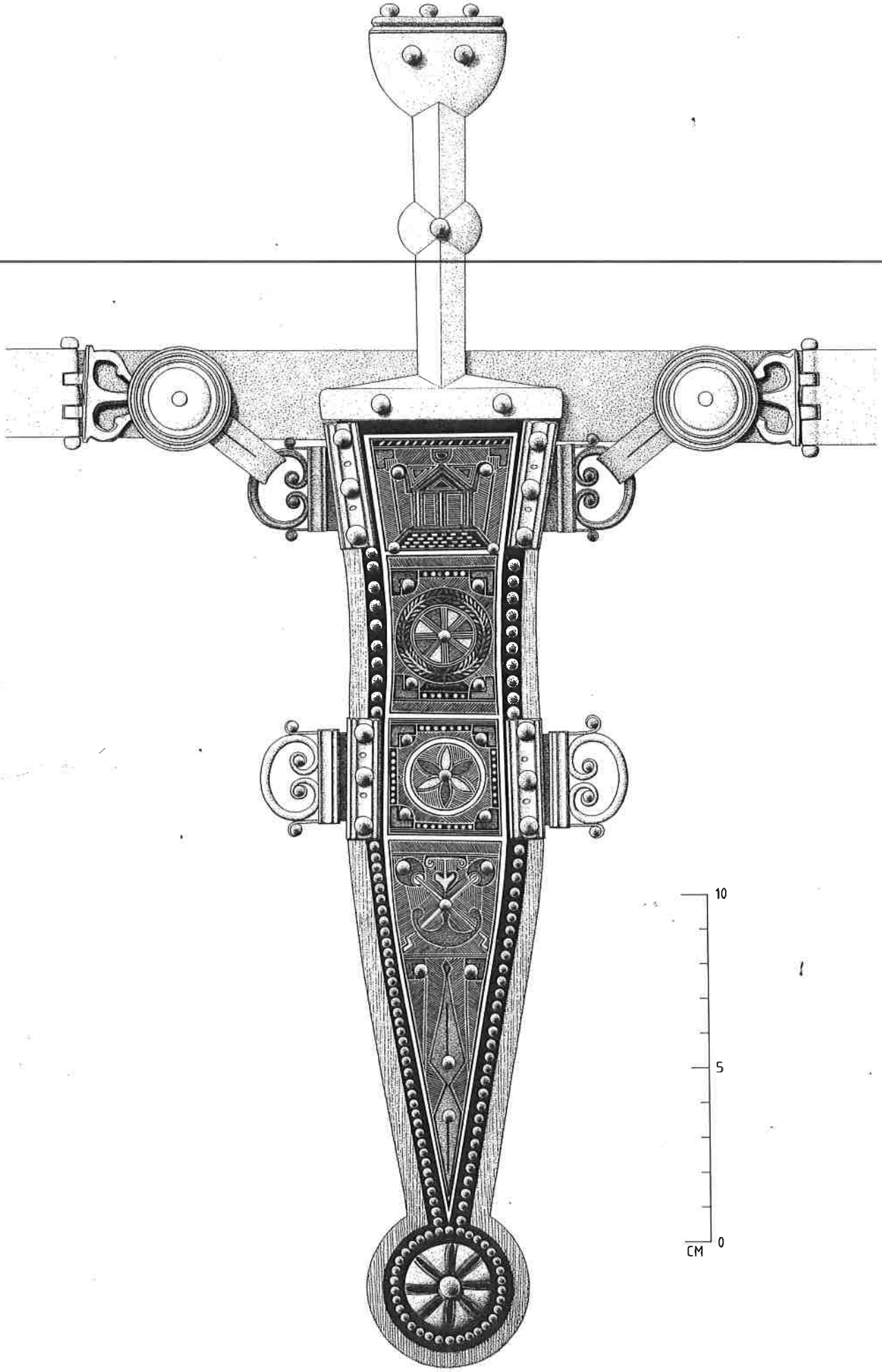

Fig. 6. Velsen dagger: reconstruction.

With due caution, we may suggest that the decorated dagger sheaths were an addition to the standard issue, perhaps even in the character of an officially sanctioned distinction - length of service or, in view of the widespread use of laurel and oak wreaths, for bravery - and to some extent comparable to modern medals.

It may, furthermore, be significant that other than the dagger and fibula, no metal equipment accompanied this soldier. He was not buried in his uniform: helmet, sword and armour are absent. This emphasises the personal nature of the dagger, which might otherwise also have been withheld at burial. Incidentally, the simple nature of the belt fittings does not suggest that a very high ranking soldier was concerned.

In the specific case of the dagger from Velsen I, it may be concluded that the dagger and its sheath was added to a belt which had seen long service, but that it was itself not long in use before being deposited in the well. Given that the soldier was probably buried in the well around AD28, the slight wear of the dagger suggests a date of manufacture of less than five years previously, while the extensive wear of the belt fittings may make a date of before AD20 more appropriate.

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Notes

1. This is an emended extract of a longer article dealing with the entire context of Well II at Velsen cf. J.-M. A. W. Morel and A. V. A. J. Bosman, 'An early Roman Burial in Velsen I' in C. van DRIEL-MURRAY (ed) Roman Military Equipment: the Sources of Evidence, Proceedings of the Fifth Roman Military Equipment Conference, 1987. BAR ... 1989.
2. SCOTT, 1985, Appendix 1; cat. no. 9. Scott regards the Velsen dagger as the earliest of his Type B.
3. ibid, Appendix 2; cat. no. 41.
4. ibid 163-4.
5. See for example, SCOTT, 1985, fig. 1, cat. nos. 5, 48, 61; fig. 2, cat. no. 65.
6. ibid, Appendix 1, cat. no. 10; THOMAS 1971, Pl. 76,2. The well preserved hilt of a dagger from Vechten (YPEY 1960-61, fig. 5) has been used as the basis for the reconstruction on fig. 5.
7. Recently SCOTT, 1985, 181, note 1.
8. Recently WEBSTER, 1985, 214.

All drawings are by J.-M. A. W. Morel.

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