

## AN EARLY SAXON CEMETERY AT BRUNEL WAY, THETFORD

by Kenneth Penn and Phil Andrews

with contributions by Elisabeth Crowfoot, Vera and Stuart Friedenson, Jacqueline I. McKinley and Penelope Walton Rogers

### SUMMARY

Investigations during building operations at Brunel Way, Thetford over several months in 1989 by Roy Rushbrooke of the Anglian Detector Club revealed archaeological features and finds ranging in date from the prehistoric to the post-medieval period. These comprised Neolithic hearths, an Iron Age ditch and at least nine Early Saxon graves, which are the subject of this report. The graves contained grave-goods which suggest a 6th-century date for the interments. Two further graves were found nearby in 1990 but it would appear that the limits of this small cemetery have now been determined.

### Introduction

This report has been compiled by staff of the Norfolk Archaeological Unit from data recorded by Roy Rushbrooke of the Anglian Detector Club. Mr Rushbrooke is to be thanked for his vigilance and care, without which evidence for this important site would have been lost.

The report is presented as a catalogue of the burials followed by notes on the pottery, textile and human remains, and is concluded by a brief discussion.

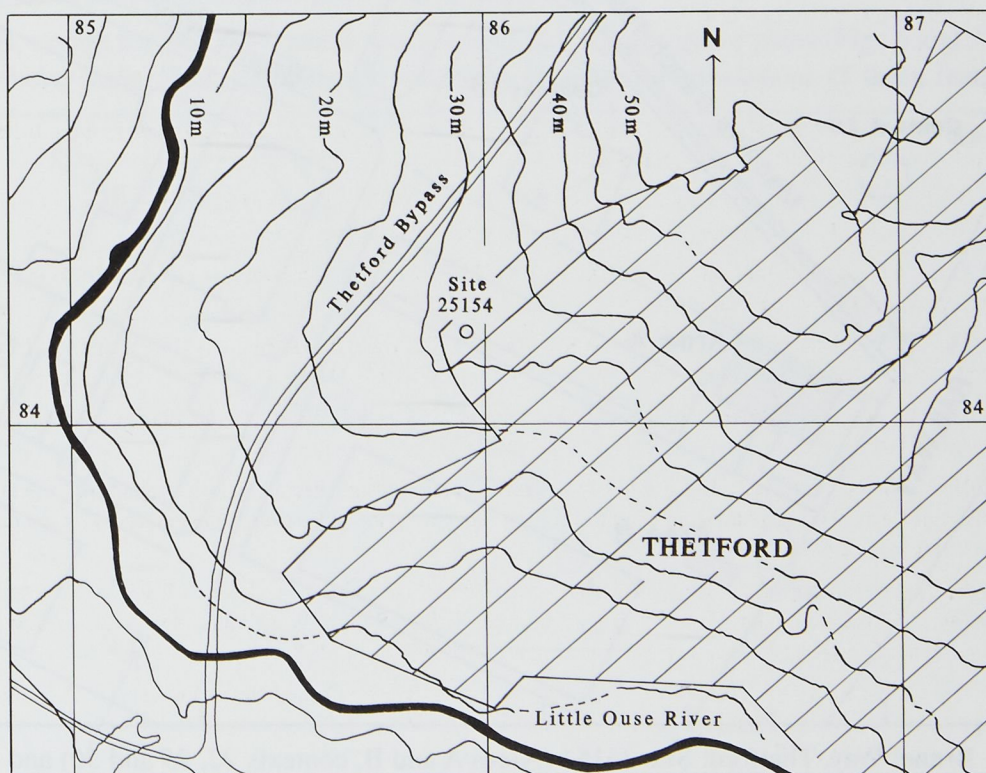


Fig.1 Location of Site 25154, showing the line of the A11 Thetford Bypass



*Discovery*

The site (County Site 25154) was discovered early in 1989, in an area just to the north-west of Thetford (NGR TL 859842) adjacent to the A11 Bypass which was being developed for industrial use (Fig. 1). There is evidence in the vicinity for occupation nearby of nearly all periods and some evidence that part of the site, at least, had been ploughed. During the course of a number of observations, a concentration of nine Early Saxon graves came to light along with some stray finds which must also derive from a cemetery. Two graves were subsequently

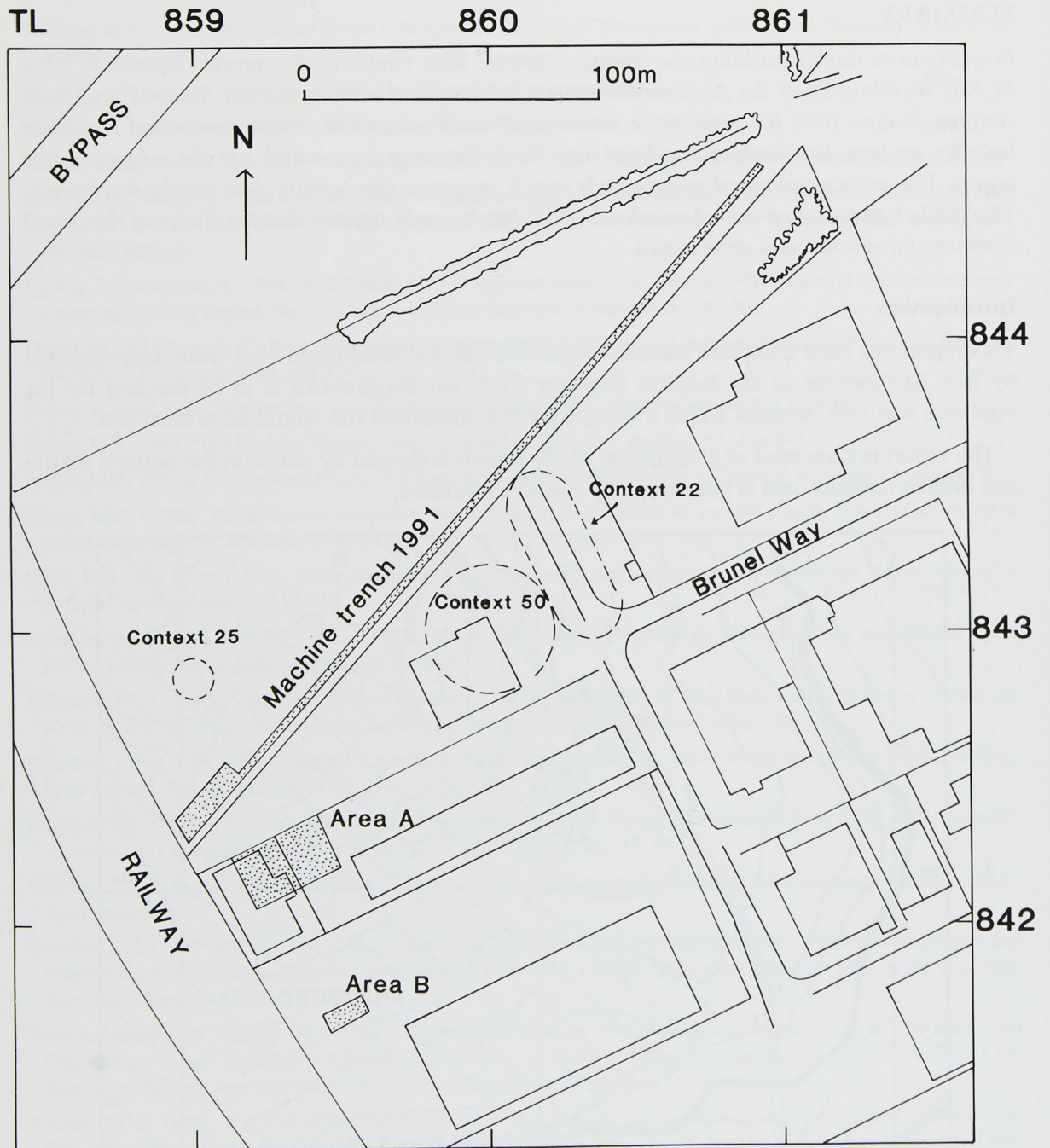


Fig.2 Brunel Way, Thetford: Site 25154 (Areas A and B, contexts 22, 25 and 50) and 1991 trench excavation. Contexts 22, 25 and 50 are imprecisely located finds, but their general positions are indicated.



discovered in 1990 some 50m south of the main group (Fig. 2). An east-to-west machine trench 300m long was excavated to the north by the NAU in December 1991, but this failed to locate any further graves.

### *Geology*

The site is located on a long and gentle slope whose soils probably belong to the Methwold/Worlington soil series, a slope soil which commonly occurs in similar positions locally. At Brunel Way some 30-40cm of yellow-brown sandy soil overlies chalky deposits (chalk-sand drift); these are very strongly 'patterned', however, giving much local variation. The graves themselves were cut into the chalky material in every case where details were recorded.

### *Recording*

Features and finds discovered at the site were numbered and recorded as contexts. Ten of these features were clearly graves and are thus indicated in the Catalogue. Context 22 is a small area to the north (Fig. 2) which produced two Roman objects and several medieval and later objects and potsherds; some unassociated finds may also derive from some nearby grave but have been described only as contexts (8, 10, 25 and 50).

Only features and material relating to the Early Saxon cemetery are reported on here; all other information remains in the County Sites and Monuments Record held by the Norfolk Museums Service. The grave outlines (Figs 3 and 4) follow those sketched on the site and are taken directly from a plan made by Roy Rushbrooke. Frequently he was unable to see the edge of a grave in its entirety and, since he could only make occasional visits to the site, he had little time or resources to draw measured plans to a consistent scale.

Thus, except for grave 17 (which was planned at 1:10), the grave plans (Figs 6 and 7) are not to a precise scale. However, they are otherwise accurate representations of these features and

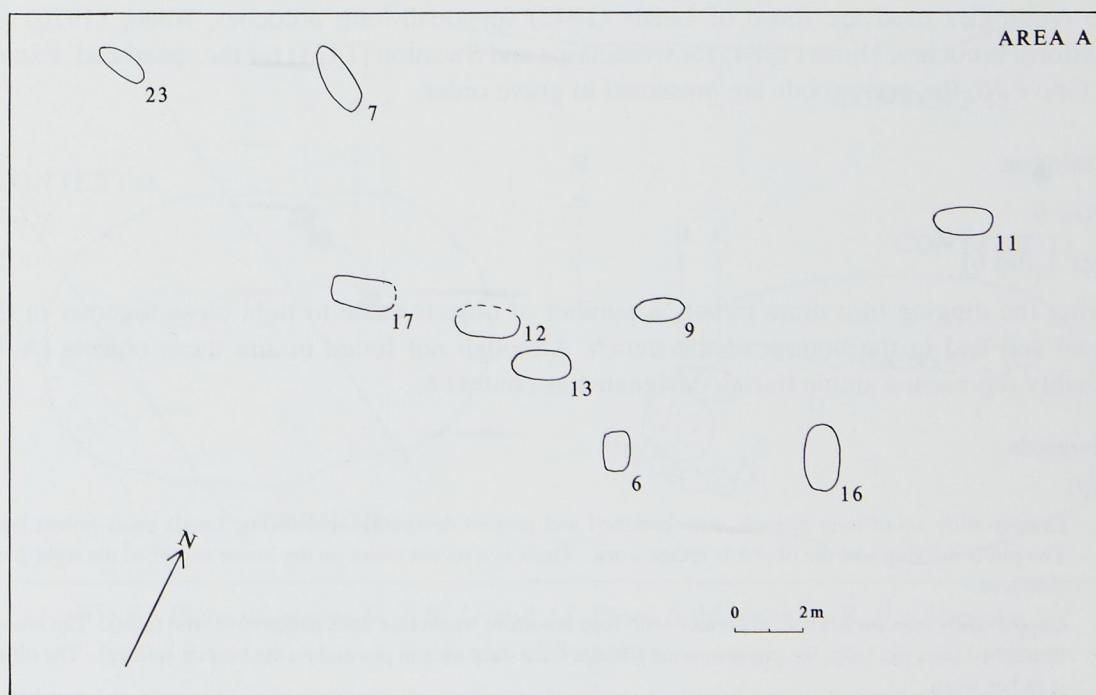


Fig.3 Plan of main group of graves in Area A (Fig. 2), with context numbers.



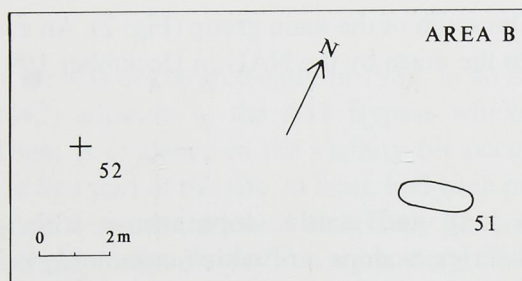


Fig.4 Plan of outlying group of graves in Area B (Fig. 2), with context numbers.

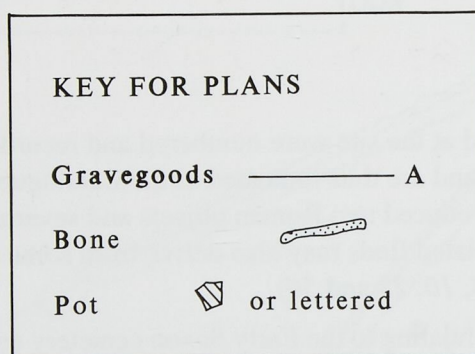


Fig.5 Key to plans

the positions of their contents. The gravegoods have not been stylised for publication but are reproduced as they were drawn on site (Figs 5, 6 and 7). In graves 13 and 17 lines of flints, which were thought to be significant, were recorded. Wherever it survived, human bone was recorded in plan.

The finds were drawn by one of the writers (KJP) in accordance with the usual conventions. The typologies used are those of Leeds (1945) for small-long brooches, Aberg (1926) for cruciform brooches, Hines (1984) for wristclasps and Swanton (1973) for the spearhead. Except for Grave 10, the gravegoods are presented in grave order.

## Catalogue

### Grave 6

(Figs 3 and 6)

During the digging of a drain trench, a number of objects came to light close together in the upcast soil and in the bottom of the trench. Although not found *in situ* these objects (A–F) probably represent a single burial, designated as context 6.

### Gravegoods

(Fig.9)

- A Copper-alloy *small-long brooch*, with punched and incised decoration and facets; Leeds cross-pot type. The pin is missing and the object is rather worn. There is a recent break on the lower corner of the right-hand side-arm.
- B Copper-alloy *annular brooch*, decorated with four groups of transverse lines and groove, and facets. The brooch is notched for a pin loop; the pin is missing (except for a trace of iron pin-end on the brooch surface). The object is rather worn.



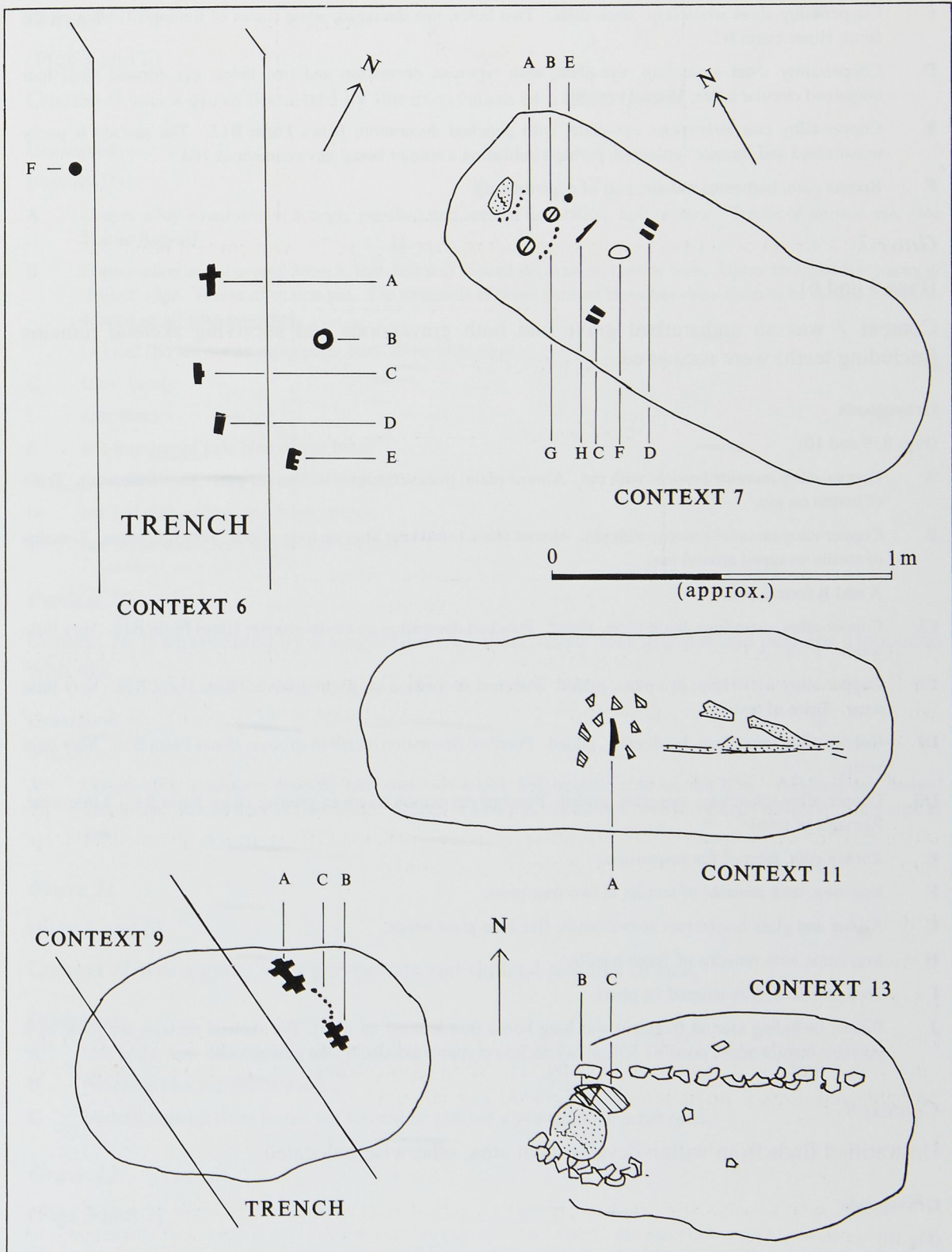


Fig.6 Plans of graves 6, 7, 9, 11 and 13. From field plans by R. Rushbrooke.  
Scale 1:20 approx.



- C** Copper-alloy sheet *wristclasp*, hook-plate. Two holes, one damaged; some traces of tinning/silvering on the front; Hines Form B7.
- D** Copper-alloy sheet *wristclasp*, eye-plate, with repoussé decoration and two holes; eye formed from four conjoined circular holes; Hines Form B7.
- E** Copper-alloy cast *wristclasp*, eye-plate, with punched decoration; Hines Form B12. The surface is partly unpatinated and 'bronze'-coloured, perhaps indicating a similar burial environment as 10A.
- F** Roman *coin*, barbarous radiate; part of edge missing.

### Grave 7

(Figs 3 and 6)

Context 7 was an undisturbed grave and both gravegoods and surviving skeletal remains (including teeth) were recovered.

#### Gravegoods

(Figs 8, 9 and 10)

- A** Copper-alloy *annular brooch*, with pin. Almost plain, transverse lines on loop of pin. Very little wear. Trace of textile on pin.
- B** Copper-alloy *annular brooch*, with pin. Almost plain, transverse lines on loop of pin. Very little wear. Remains of textile wrapped around pin.  
A and B form a pair.
- Ci** Copper-alloy *wristclasp*, hook-plate, gilded. Punched decoration on rib-in-groove; Hines Form B18. Very little wear.
- Cii** Copper-alloy *wristclasp*, eye plate, gilded. Punched decoration on rib-in-groove; Hines Form B18. Very little wear. Trace of textile.
- Di** Copper-alloy *wristclasp*, hook-plate, gilded. Punched decoration on rib-in-groove; Hines Form B18. Very little wear.
- Dii** Copper-alloy *wristclasp*, eye-plate, gilded. Punched decoration on rib-in-groove; Hines Form B18. Little wear. Remains of textile.
- E** Roman *coin*, pierced for suspension.
- F** Iron *ring*, with remains of textile; in two fragments.
- G** Amber and glass *beads*; two amber beads; five blue glass beads.
- H** Iron *knife*, with remains of ?horn handle.
- I** Teeth, thirteen, (not lettered on plan).
- J** Bones, including cranial fragment and long bones (not lettered on plan). The skeletal remains are those of a younger mature adult, possibly female, a conclusion supported also by the gravegoods.

### Context 8

Unstratified finds from within development area, otherwise unlocated.

#### Gravegoods

(Fig.10)

- A** Iron *knife*, broken. Traces of horn on tang.
- B** Iron *knife*, broken.
- C** Iron *stem* with suspension loop; possibly the missing part of **D**.
- D** Iron *key*, traces of textile on reverse; upper part missing.



*Grave 9*

(Figs 3 and 6)

Context 9 was a grave disturbed by the excavation of a drain trench.

**Gravegoods**

(Figs 10–11)

- A** Copper-alloy *equal-armed brooch*, punched and incised decoration, hollow bow. Traces of an iron pin; (see Textile Report).
- B** Copper-alloy *equal-armed brooch*, punched and incised decoration, hollow bow. Upper terminal has traces of 'frilled' edge. Traces of an iron pin. The terminals of these unusual brooches show them to be related to trefoil-headed small-long brooches.
- (A) and (B) are not an exact pair. Both show little wear.
- C** Glass *beads*:
- i** nine blue;
  - ii** one translucent pale blue melon bead;
  - iii** two cylindrical, red with yellow stripes;
  - iv** one red with yellow and green stripes;
  - v** one white with green stripes and red dots.

*Context 10*Context 10 is represented by a single find (**A**), discovered near grave 6 and perhaps associated with 6E.**Gravegood**

(Fig. 13)

- A** Copper-alloy *cruciform brooch*, with cast side-knobs and lappets, stud on the bow. Punched and incised decoration. Knobs have hollow backs. Traces of iron pin. Textile on reverse; Aberg Group IV. Little sign of wear.

*Grave 11*

(Figs 3 and 6)

Context 11 was a grave with gravegoods and skeletal remains *in situ*.**Gravegoods**

- A** Iron *knife*, now disintegrated (not illustrated).
- B** Potsherds (not lettered on plan).
- C** Skeletal remains (long bones; not lettered on plan) of a young/mature adult male.

*Grave 12*

(Figs 3 and 7)

Context 12 was a grave, partly obscured by building works and by a spoilheap upon which **C** was found. However, these works were halted to allow careful recovery of the remaining objects and their recording *in situ*. A photograph shows the skull, upper vertebrae and gravegoods (Figs 11 and 12) and leg bones *in situ*. The dead man was buried with a spear beside him and a shield covering his upper half.



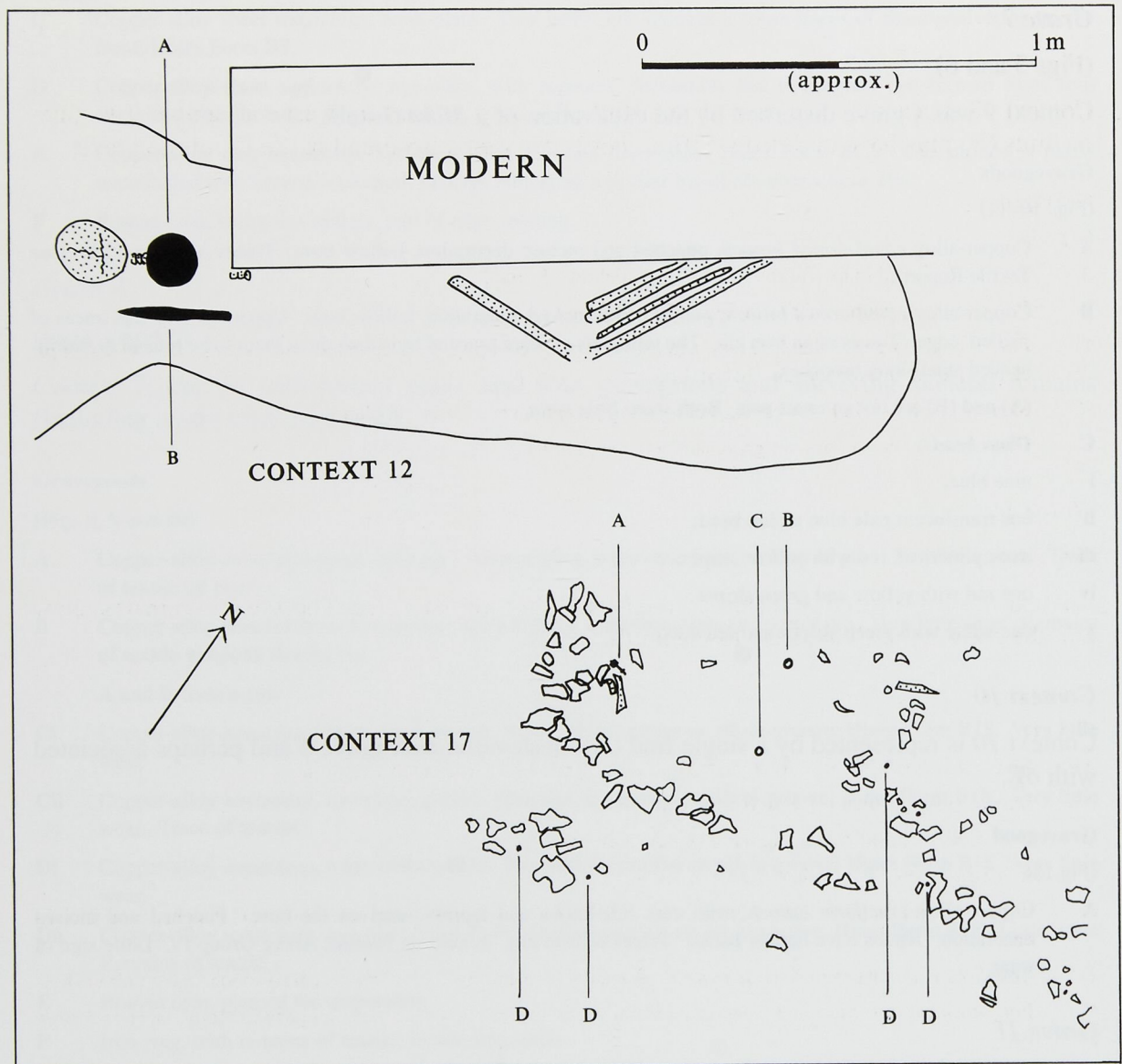


Fig.7 Plans of graves 12 and 17. From field plans by R. Rushbrooke. Scale 1:20 approx.

### Gravegoods

(Figs.11 and 12)

- Ai** Iron *shield-boss*, low-conical with point ending in the remains of a button. Originally attached to the board by five copper-alloy tinned rivets, one of which is missing. Traces of textile on flange. Wood on underside.
- Aii** Copper-alloy *shield-grip*, with rivet at each end. Repoussé decoration at each end. Remains of wooden grip and leather binding.
- B** Iron *spearhead*, remains of wood in socket; Swanton's Group C or D (leaf-shaped).
- C** Iron *knife* (found on edge of grave: not shown on plan).
- D** Skeletal remains (not lettered on plan) of an older mature adult male, a conclusion also indicated by the gravegoods.



*Grave 13*

(Figs 3 and 6)

Context 13 appears to have been an undisturbed (except at the very west end) grave. Two lines of flints (E) may have outlined a coffin. Potsherds were also found in the fill of the grave.

**Gravegoods**

(Fig.12)

- A Potsherds, found in the fill (not illustrated). Fabrics Ib, IIa, IV.
- B Pot, complete, plain. Fabric IIa; organic residue on exterior.
- C Pot; a single large potsherd, resting against and partly covering B. Decorated with bosses, lines and stamps; clearly part of a funerary urn. Fabric IIb.
- D Skeletal remains (skull at west end) of a young juvenile, not lettered on plan.
- E Flints in two lines on base of grave (not lettered on plan).

*Grave 16*

(Fig. 3)

Context 16 was a recently disturbed (and possibly robbed) grave. The skeletal remains show that the body lay with the head to the north.

**Gravegoods**

(Fig.14)

- Ai Iron shield-boss, fragmentary, with two (of an original ?five) iron rivets remaining.
- Aii Iron shield-grip, traces of iron rivet at each end.
- B Iron knife, traces of textile; tip and part of handle missing.
- C Iron buckle loop, incomplete; traces of textile.
- D Iron disc, with remains of rivet on reverse. Traces of copper-alloy on reverse. Probably a shield-mount and a pair to E.
- E Iron disc, with remains of rivet on reverse. Traces of textile on face. Probably a shield-mount and a pair to D.
- F Iron fragments (two illustrated), possibly parts of Ai, D, E or another disc. One fragment has traces of an iron rivet.
- G Iron ferrule.
- H Iron spearhead socket, two fragments.
- J Potsherds in grave filling (including one of Bronze Age date). Fabrics Ib, IIa, III.

Skeletal remains of an older adult male were also found, an identification consistent with the gravegoods.

*Grave 17*

(Figs 3 and 7)

Context 17 was a grave, probably recovered complete. A line of flints outlined the burial on the south side and west end, and perhaps indicate a coffin. Context 20, a hearth, lay nearby, at the east end.

**Gravegoods**

(Fig.15)

- A Copper-alloy cruciform brooch, no side-knobs. The top knob is cast and hollow-backed. Punched and incised decoration on edges, including bow panels and lower terminal. Median lines on the bow bear punched decoration; Aberg Group IV. Traces of textile on back. This brooch has very little wear and bears marks of manufacture on the headplate. Corrosion obscures some details.



- Bi** Iron *knife*, with remains of a horn handle and leather sheath.
- Bii** Copper-alloy *tweezers*, plain.
- Biii** Copper alloy *washer*.
- Biv** Iron *rivet*.
- C** Iron *buckle*, with remains of textile.
- D** *Potsherds* in filling of grave. Fabrics Ia, Ib, IIa.

Skeletal remains were also found, representing two individuals; (a) older juvenile, (b) mature/older adult. The brooch **A** was associated with individual (b).

### *Grave 23*

(Fig. 3)

Context 23, a grave west of the main group of burials, was revealed by a builder's trench which slightly disturbed it. Much of the skeleton, with its head to the west, remained *in situ* and was photographed.

#### **Gravegood**

(Fig.15)

- A** Iron *knife*, traces of textile.

The skeleton was that of an older mature adult, male.

### *Context 25*

Context 25 denotes unassociated finds of prehistoric to medieval date made by metal-detector on the surface of the arable field to the north of the narrow enclosure immediately north of the development site. Two objects are illustrated.

#### **Gravegoods**

(Fig.17)

- A** Copper-alloy *small-long brooch*, fragmentary and worn; Leeds trefoil-headed type.
- B** Copper-alloy *wristclasp*, eye-plate; Hines Form B11. Some tinning or silvering on both faces.

### *Context 50*

This context represents discoveries made in 1988 by Mr Brian Fuller on the building site to the north of the development site.

#### **Gravegoods**

(Fig.16)

- A** Copper-alloy *wristclasp*, hook-plate, with punched decoration; Hines Form B20.

### *Grave 51*

(Fig. 4)

Context 51 was a shallow grave, found relatively undisturbed by contractors some 50metres south of the main group. The positions of the gravegoods were not recorded, but the grave outline was planned.



**Gravegoods**

(Fig.16)

- A Copper-alloy *annular brooch*: plain, pin missing, traces of textile.
- B Copper-alloy *penannular brooch* and pin; with overlapping zoomorphic terminals, incised decoration. Plano-convex section.
- C Glass *beads*, twelve; three blue, two red, one yellow, two yellow-green melon beads, one green, three yellow with red stripes.
- D Copper-alloy *annular brooch*; pin missing, broken at attachment point, punched decoration, very worn.
- E Copper-alloy *penannular brooch* and pin; coil terminals.

The skeletal remains were of a juvenile. Bronze staining on the maxilla represents contact with a gravegood.

*Grave 52*

(Fig. 4)

Context 52 was a shallow grave, found near 51 but badly disturbed. The grave outline could not be properly planned and only the approximate positions of the gravegoods were recorded.

**Gravegoods**

(Fig.17)

- A Copper-alloy *annular brooch*; pierced for pin, traces of iron pin, incised decoration.
- B Copper-alloy *wristclasp*, hook section; sheet, with repoussé and punched decoration; Hines Form B7 or 13B (traces of solder may represent a missing bar).
- C Copper-alloy *repair* for wooden vessel; folded sheet with rivet.
- D Iron *ring* or remains of a *buckle*.
- E Iron *stud*; traces of textile on upper surface.

The skeletal remains are those of two individuals: (a) mature adult, female (bronze staining to left clavicle and first rib); (b) juvenile.

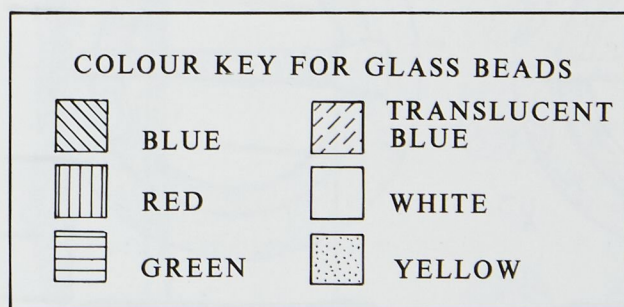


Fig.8 Colour key for glass beads

**Specialist reports***Early Saxon pottery*

by Vera and Stuart Friedenson

Early Saxon pottery recovered from the Brunel Way site comprises 138 sherds and a single complete pot, with a combined weight of approximately 1.2kg. The complete vessel and an associated find of ten joining, decorated sherds from context 13 account for more than half of this total. The remaining 128 sherds were found in contexts 13, 15, 16, 17, 19 and 24, with twenty being unstratified.

The pottery falls into four main fabric categories, of which the two largest were subsequently sub-divided into two groups each to take account of minor differences. The groups are defined as follows:



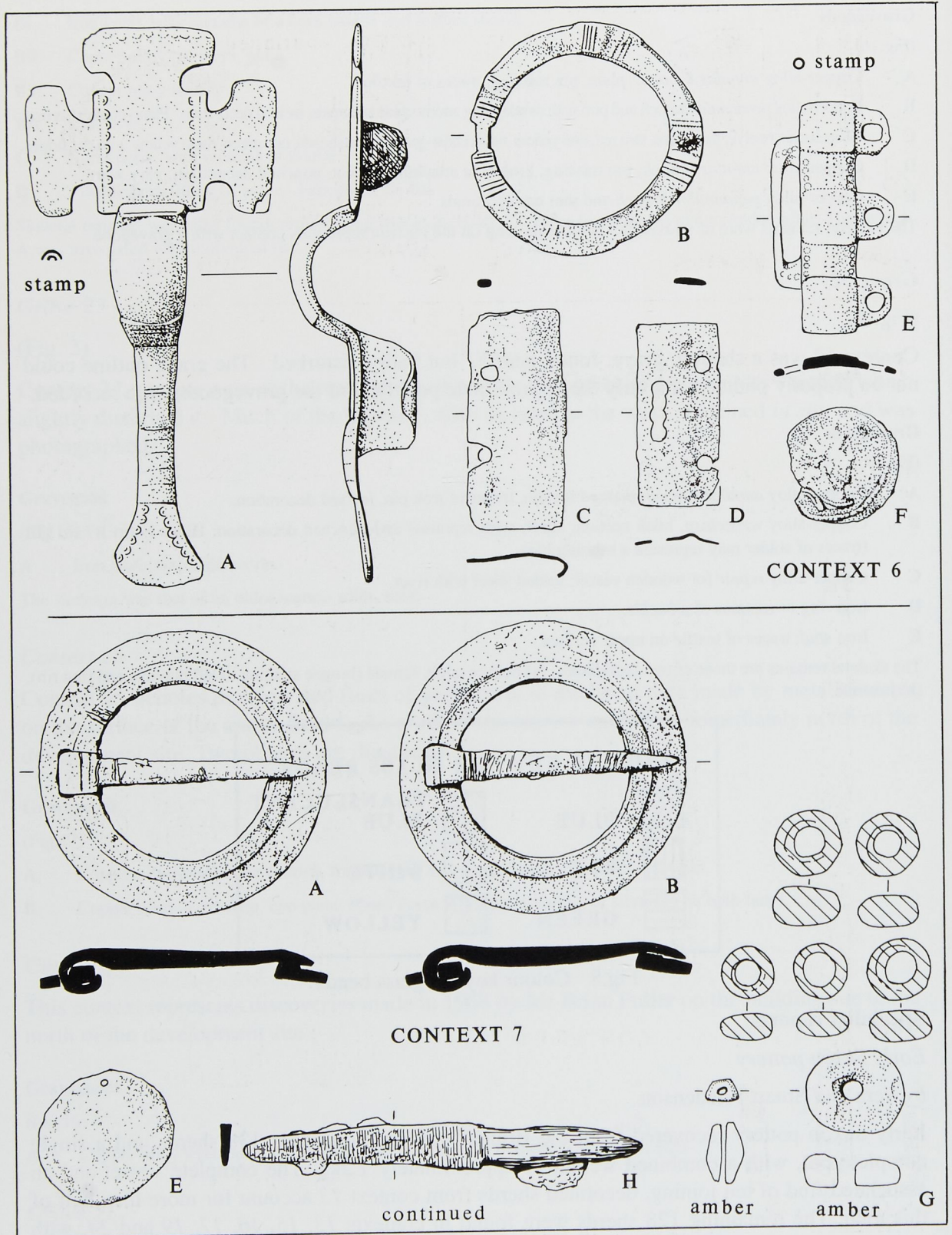


Fig.9 Objects from contexts 6 and 7. Scale 1:1, except 7H (1:2).



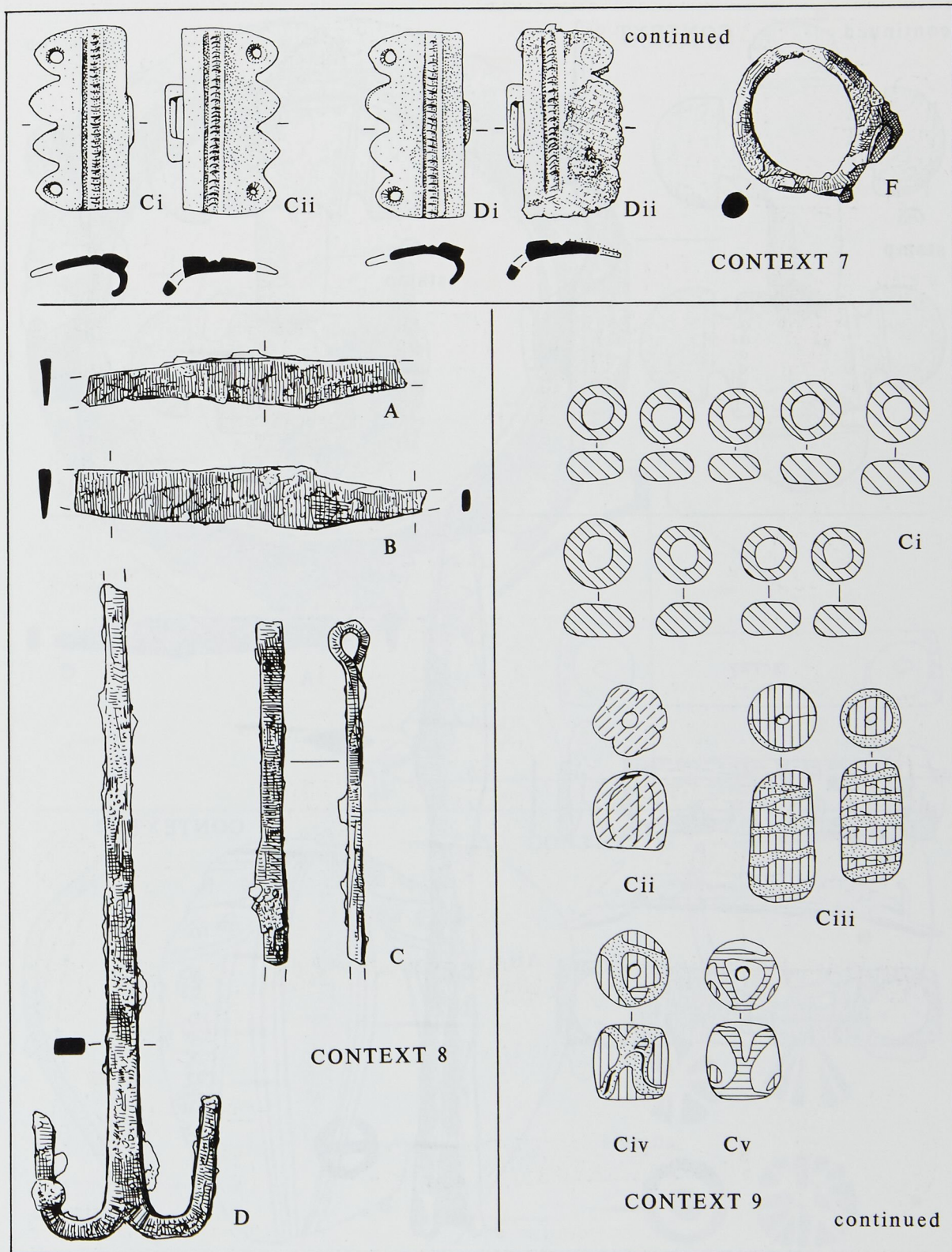


Fig.10 Objects from contexts 7, 8 and 9. Scale 1:1, except 8A-D (Scale 1:2).



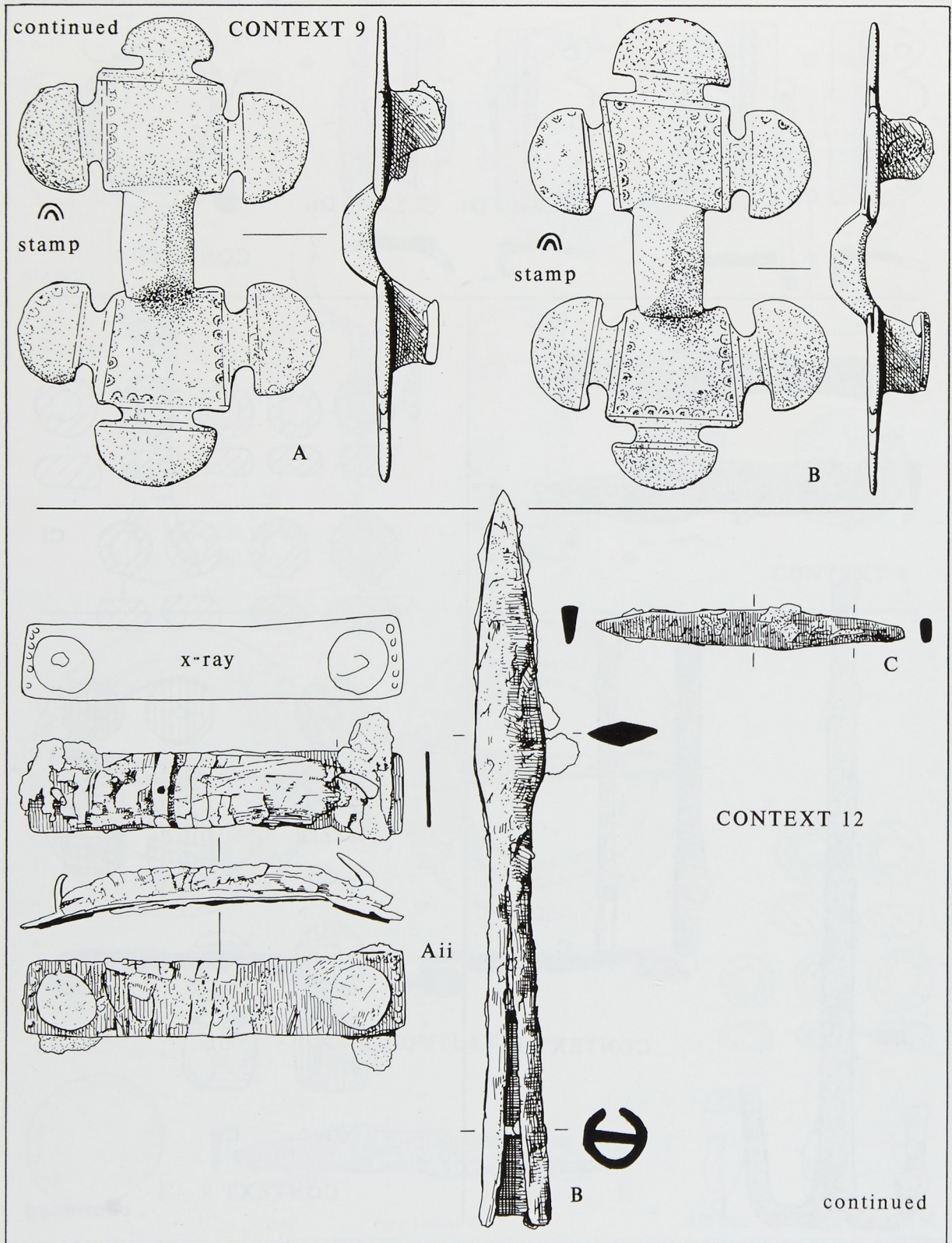


Fig.11 Objects from contexts 9 and 12. Scale 1:1, except 12Aii, B, C (Scale 1:2).



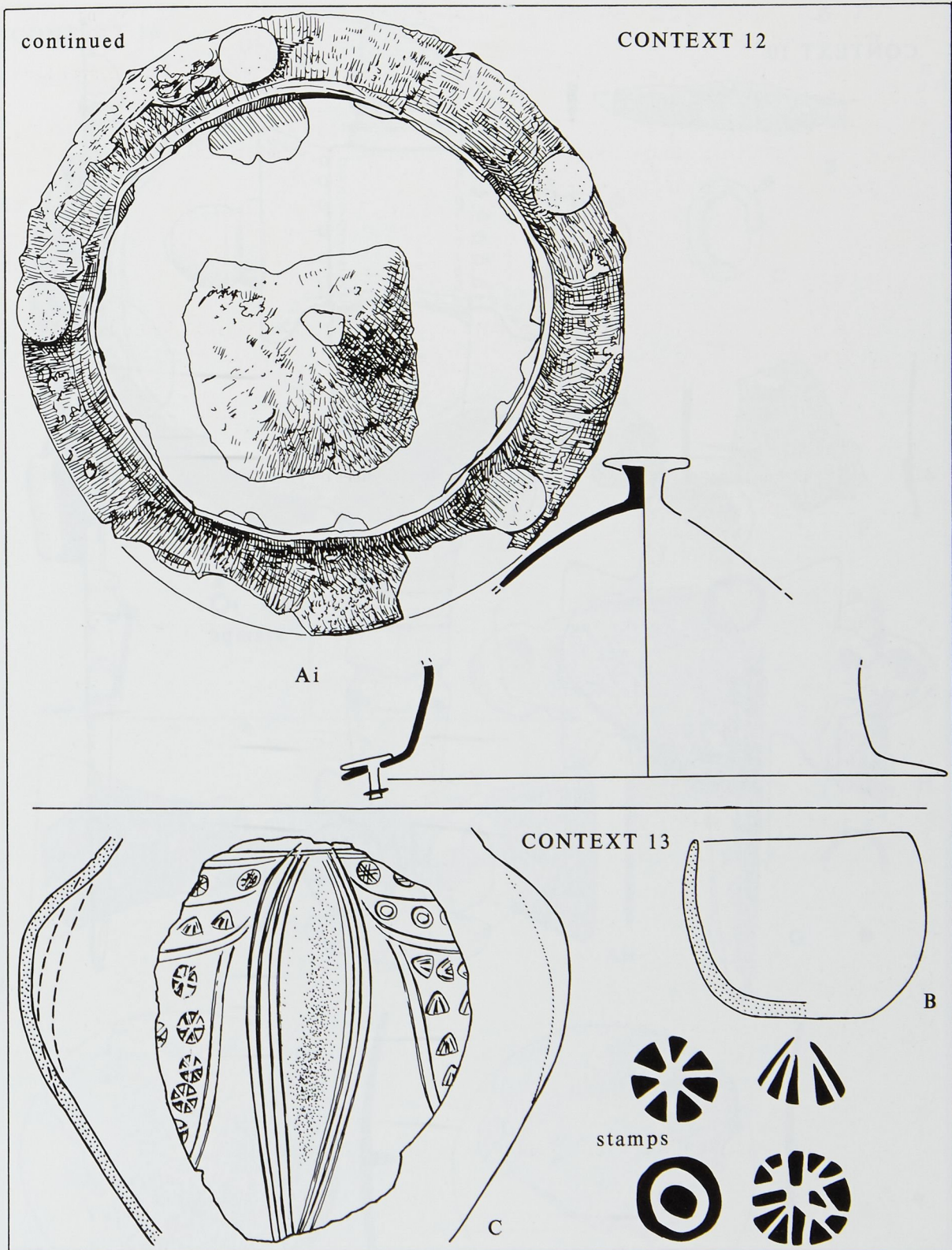


Fig.12 Objects from contexts 12 and 13. Scale 1:2, except 13B, C (Scale 1:3, stamps 1:1)



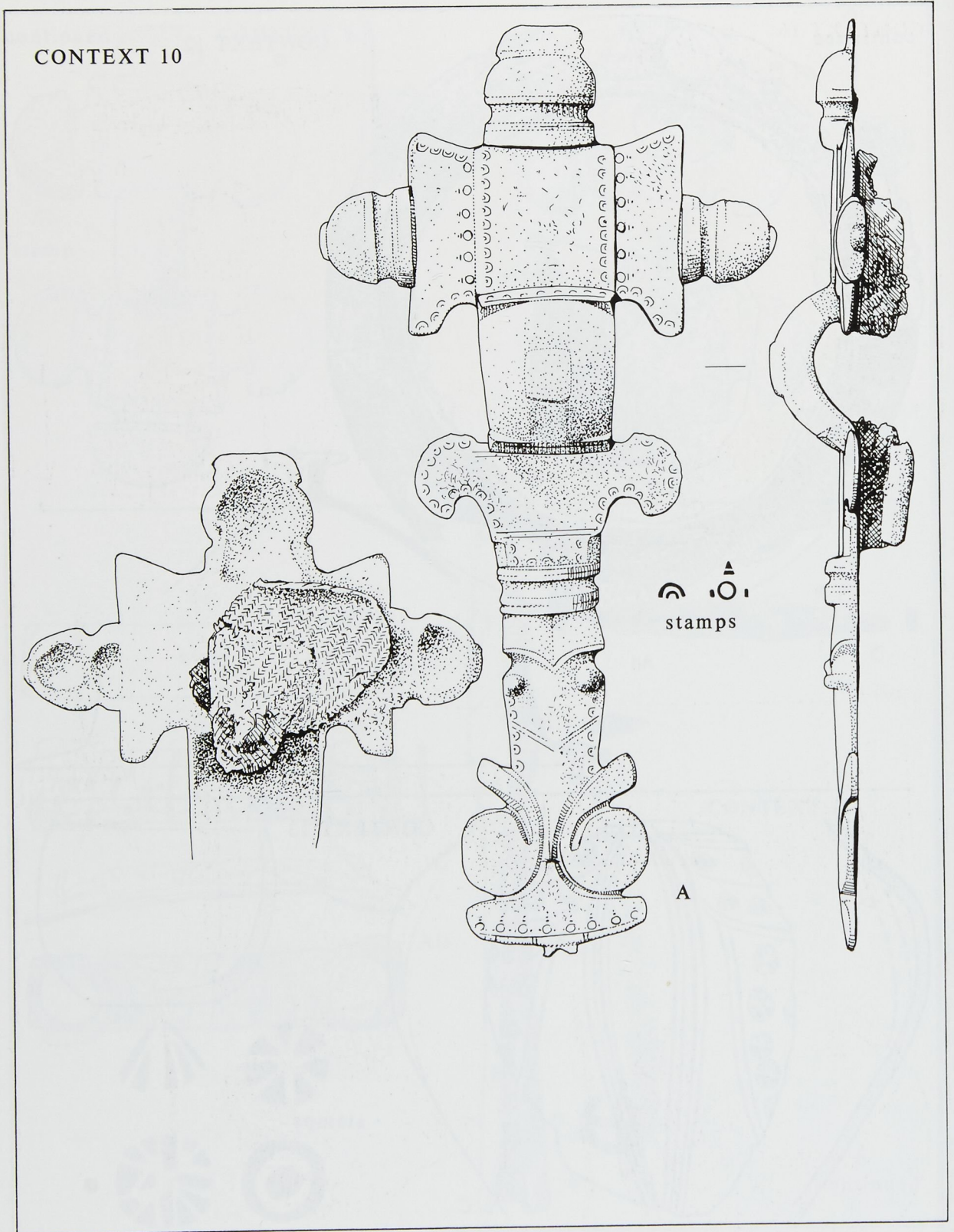


Fig.13 Objects from context 10. Scale 1:1 (stamps 2:1)



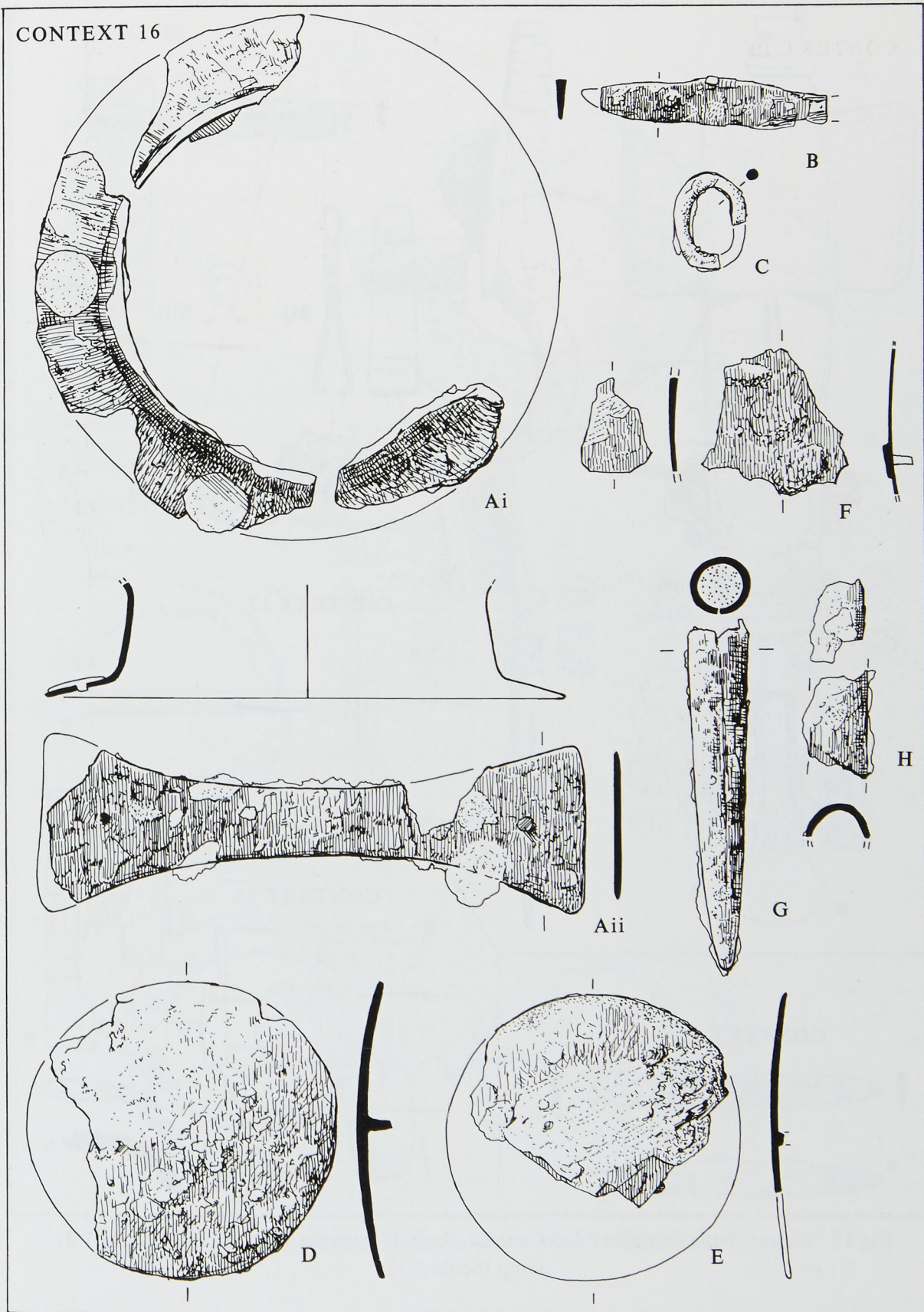


Fig.14 Objects from context 16. Scale 1:2



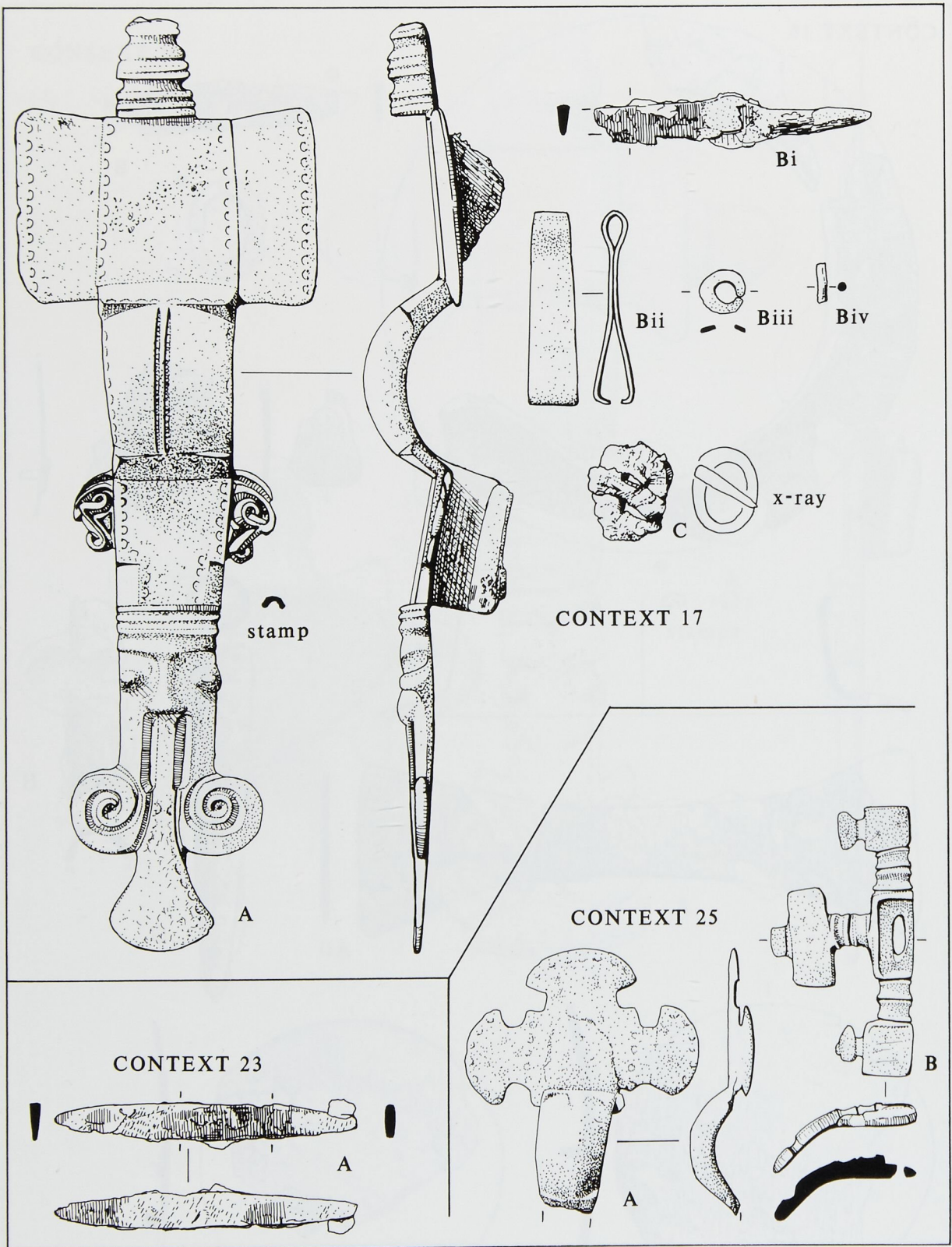


Fig.15 Objects from contexts 17, 23 and 25. Scale 1:1, except 17Bi, C, 23A (Scale 1:2); stamp (Scale 2:1)



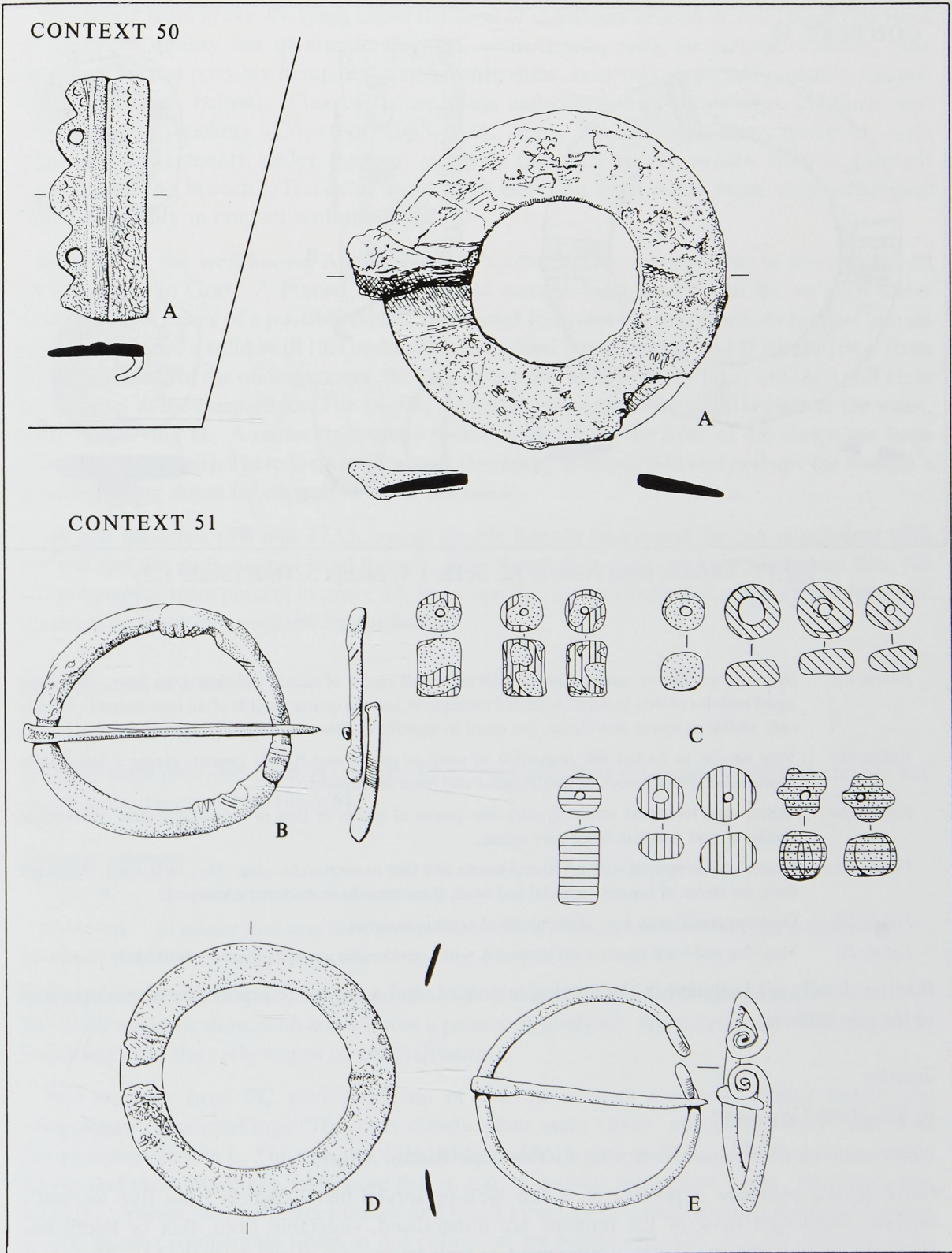


Fig.16 Objects from contexts 50 and 51 (Scale 1:1)



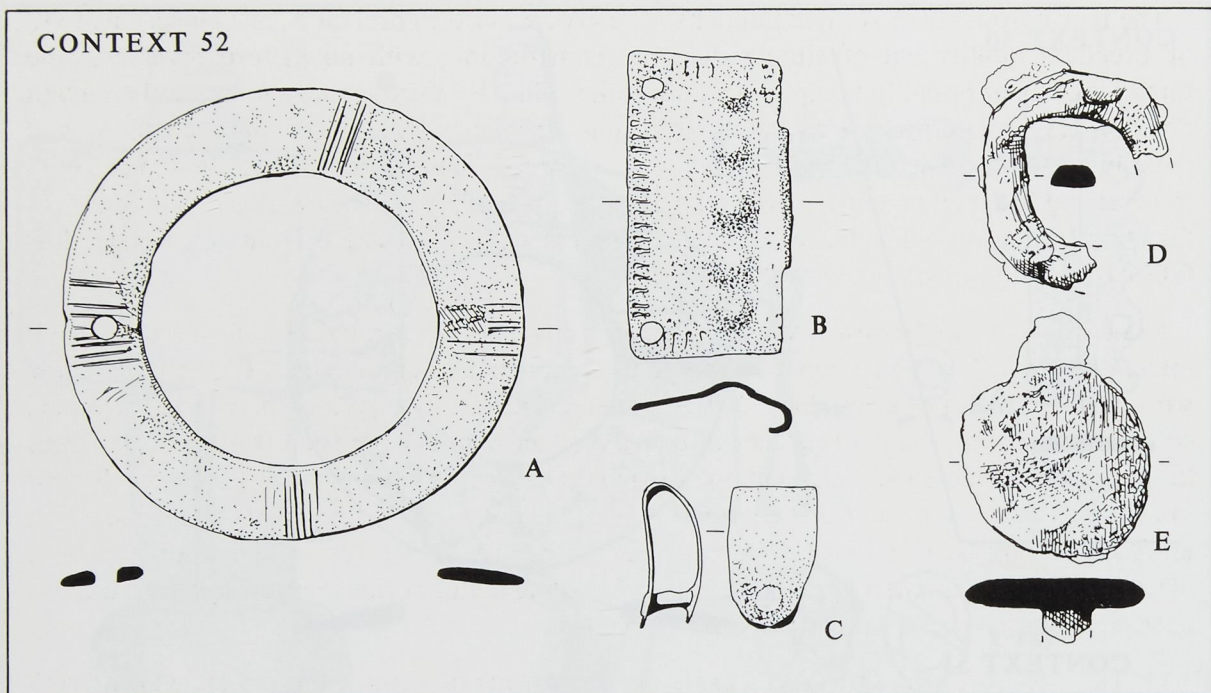


Fig. 17 Objects from context 52. Scale 1:1, except 52D, E (Scale 1:2)

- Fabric Ia:* Very coarse. Quartz sand tempered with numerous pieces of quartz and flint up to 2mm. There are small nodules of iron material scattered throughout and the quartz itself is often iron-stained. Mica is only visible as sparse tiny flecks, too small to identify as either biotite or muscovite.
- Fabric Ib:* Very similar to *Ia* but the proportion of sand to quartz and flint is greater, giving a less coarse appearance. Slight traces of iron material and mica are present.
- Fabric IIa:* Quartz sand tempered with only very few pieces of quartz or flint of measurable size. Occasional specks of iron material. Mica very sparse.
- Fabric IIb:* Quartz sand tempered with additional quartz and flint to measurable size. Very little mica. Although there are traces of organic material and bone, these must be considered accidental.
- Fabric III:* Grog tempered, with very slight traces of organic material.
- Fabric IV:* Very fine and hard: quartz sand tempered, with considerable amounts of mica, most likely muscovite.

Further details are included in the catalogue entries, and a complete report has been deposited in the site archive.

### Textiles

by Elisabeth Crowfoot

with a note on fibres and dye-testing by Penelope Walton Rogers

Some textile evidence is present on a few well-preserved metal objects from five women's burials. Although most of the remains are mineralised, vegetable fibre, flax or hemp has survived in two graves: 7 (on wristclasp C), and 10 (on cruciform brooch A). The clear fragments, with one exception (10A) are small, less than 1cm square, but the identifiable details agree with those found in most Anglian cemeteries: spinning Z (apart from ?S in one deteriorated area, 9B); some coarse tying threads (8D). The weaves include tabby (plain weave), four-shed (2/2) twill, and a probable tablet-weave edge.



The fabric from grave 10, lying under the head of cruciform brooch **A**, is a close, fine twill of excellent quality but of simple diagonal construction, with no pattern reverses; the thread, of flax or possibly hemp, has a noticeable shine, is evenly spun, and probably undyed (Walton Rogers, below). Flax twills are often associated with furnishings, cushions and coverings for buckets (Crowfoot 1983, 424, 466). The position here however, with mineralised fragments under the pin, suggests that this weave comes from a garment fastened by the brooch. Traces of wool fibre adhering must come from some other lost fabric originally in contact with the metal.

Features of the well-known Anglian woman's costume are recognisable in the textiles on metal objects in Grave 7. Pinned by the pair of annular brooches (**A** and **B**), an even tabby weave (i) with traces of a possible tablet-weave edge indicates the overgown, its borders pinned on the shoulders; a solid twill (iii) underneath the gilded wristclasps **C** and **D** would come from the long sleeves of the undergarment, the sewing threads by which they were attached still clear in the holes in the clasp-edges. The sleeves may have lain against the metal objects at the waist, knife **E** and ring **H**. A rather finer tabby weave lying across the front of the clasps has been identified as flax (ii). There is no evidence of shrouding at this period and perhaps the woman's head-veil hung down far enough to cover her hands.

On two brooches (9**B** and 17**A**), coarse double threads tied round the pin attachment with knotted and cut ends suggest bead threads; their appearance again probably indicates flax. No beads however were present in grave 17, however: this may indicate that a broken but favourite brooch was sewn into position for the burial.

#### Identification of Fibres

by Penelope Walton Rogers

Samples were provided from 7**C** (textile from front of gilded wrist-clasp) and 10**A** (textile and roots from the cruciform brooch).

#### Summary catalogue

Grave 7**C** fine plant stem fibre, almost certainly flax

Grave 10**A** (i) coarser plant stem fibre, perhaps hemp, with some inclusions of animal fibre, probably wool; (ii) roots.

The samples were examined by means of a high-powered, transmitted light microscope at x100 and x400 magnification, with and without a polarising analyser. All samples are relatively well-preserved or in the early stages of mineralisation.

Two samples from 7**C** were made up of fine fibres with a narrow central lumen and intermittent cross-markings. They are clearly plant stem fibres, almost certainly flax, both *Linum usitatissimum* L. The sample of thread from 10**A** is also made up of fibres with a central lumen and cross-markings, indicating that it, too, is derived from plant stems. The fibres are, however, coarser, with a broader lumen and much closer cross-markings than those from grave 7. The nearest comparable fibres in our collection are hemp, although it is not possible to be sure that nettle or different varieties and qualities of flax, do not have a similar appearance.

Relatively fine animal fibres, probably wool, were also found adhering to the threads from grave 10. Several microscope-mounts of the threads were made and each showed one or two of these fibres.



The samples of ?root from grave 10 are thick, with small side-branches. Under the microscope broken pieces showed the close spiral markings which confirm that they are roots.

### *Human Remains*

by Jacqueline I. McKinley

Human bone from nine discrete graves/contexts was recovered.

### Method

Age of immature individuals was assessed from the stage of tooth development and eruption (van Beek 1983), the stage of epiphyseal fusion (McMinn and Hutchings 1985) and the length of long bones (Bass 1987). The age of adults was assessed from the degree of epiphyseal fusion (McMinn and Hutchings 1985; Webb *et al.* 1985), pattern of degenerative changes in the pubic symphyses (Brooks 1955), tooth wear patterns (Brothwell 1972), and the general degree of cranial suture fusion and degenerative changes to the bone.

Age categories — rather than ages in years — are used in view of the difficulties surrounding the accurate assessment of age for adult individuals over 25/30 years (*ie.* following final epiphyseal fusion). Tooth wear patterns and the degree of degenerative changes in the bone, may vary considerably dependent on the individual and/or the group. The categories employed are as follows:

juvenile	5-12 years;
sub-adult	13-18 years
young adult	18-25 years
mature adult	25-40 years
older adult	40 years +

It was occasionally possible to subdivide the categories if adequate evidence survived, or to join groups where insufficient recovery of disturbed skeletons reduced evidence of age.

The sex of the adult individuals was assessed from the sexually dimorphic traits of the skeleton (Bass 1987). Because of the paucity of information in some cases, three levels of reliability have been used: ?? for the possible, ? for the probable and unquestioned sexing. Cranial index was calculated where possible; these and other measurements were taken according to Brothwell (1972). Stature was estimated wherever possible, using Trotter and Gleser's regression equations (1952, 1958).

Pathological lesions and morphological variations were recorded, and diagnoses suggested where appropriate. Details of identification remain in the project archive.

### Results

In total, 13 individuals were identified:

- 1 young juvenile
- 3 juveniles
- 1 older juvenile
- 1 sub-adult/adult
- 1 young/mature adult (male)
- 1 younger mature adult (female)
- 1 mature adult (female)



2 older mature adults (males)

1 mature/older adult

1 older adult (male)

Two of the graves (17 and 52) contained dual burials, in both cases one of the individuals being a juvenile. Grave 16 may have been a triple burial, one of the individuals again being a juvenile. Juveniles were also found in single graves.

### Summary catalogue

#### *Grave 7*

Represented by elements of skull, upper and lower limb. About 20% recovery.

Younger mature adult, ??female.

Animal remains: ?mandibular incisor of a pig.

#### *Grave 11*

Represented by elements of axial, upper and lower. About 25% recovery.

Young/mature adult, male.

Pathology: slight osteoarthritis in the lumbar vertebrae.

#### *Grave 12*

Represented by elements of skull, axial, upper and lower limb. About 50% recovery.

Older mature adult, male. Cranial index 80.6 Brachycephalic. Estimated stature 173.6cm (5ft 7 inches).

Pathology:

- 1) dental caries – maxillary;
- 2) slight osteoarthritis in atlas/axis joint;
- 3) slight ossification of posterior ligament in thoracic vertebrae;
- 4) commencement of ankylosing spondylitis in sacro-iliac joint;
- 5) slight exostoses in finger phalanges.

#### *Grave 13*

Represented by elements of skull, axial, upper and lower limb. About 30% recovery.

Young juvenile.

Animal remains: fragments of ?horse molar and ?horn core/antler.

#### *Grave 16*

Represented by elements of skull, upper and lower limb. About 15% recovery.

Older adult, male, estimated stature: 173.64cm (5ft 7 inches).

Pathology:

- 1) Left tibia and fibula show a well-healed fracture just below the mid-shaft. The tibia has a bony callous on the medial surface (4.0 x 2.4 x 3.0mm), no apparent infection. The fibula has a corresponding callous of bone on the anterior surface with a 'spur' of bone 4.5mm long, 5.0mm high, extending round towards the tibia from the muscle attachments.
- 2) Morphological variations: right 2nd mandibular incisor congenitally absent, canine rotated through c..80° angle mesially to occupy canine and 2nd incisor position; distal articular surface of the left 1st proximal phalanx is presented as two distinct facets.



*Area of grave 16*

Represented by a) elements of upper limb and b) by element of lower limb. Some of the bone from this collection was found to be from grave 16. The rest of the bone represents two other individuals and may have been in upcast from nearby undiscovered graves, or perhaps also from grave 16.

- a) Juvenile.
- b) Sub-adult/Adult.

*Grave 17*

Two individuals, both represented by elements of skull, a) by axial, b) by upper and a) by lower limb. About 8% recovery.

- a) Older juvenile.
- b) Mature/older adult. A brooch was noted lying over the fragment of the large, left medial clavicle.

*Grave 23*

Represented by elements of skull, axial, upper and lower limb. About 75% recovery.

Older mature adult, male, estimated stature 162.5cm (5ft 3 inches).

Pathology:

- 1) Small cyst in left acetabular rim;
- 2) Small exostoses on right femur head.

*Grave 51*

Represented by elements of skull, upper and lower limb. About 8% recovery.

Juvenile.

Pathology: Cribra orbitalia in the left orbit.

Bronze staining to maxilla.

*Grave 52*

Two individuals, represented by elements of skull, axial, upper and lower limb. About 20% recovery.

- a) Mature adult female.

Bronze staining to left clavicle and 1st rib.

- b) Juvenile.

## Discussion

In view of the incomplete nature of the cemetery and the small number of graves located, any attempt at demographic comment would be inadvisable. The cemetery does not appear to have been organised in any way according to age or sex, although a point of interest is that immature individuals occurred with adults or alone.

There was little evidence of pathological lesions. Several of the adults showed some slight osteoarthritic lesions and the older mature male in grave 12 has ankylosing spondylitis in the sacro-iliac joint. This is chronic inflammation with progressive fusion of the joints of the spinal column, beginning in the sacro-iliac joint. In grave 16 the left tibia and fibula of the older adult male have well-healed and aligned fractures just below the mid shafts; there do not appear to have been any associated lesions.

Animal bone was found in graves 7 and 13, and consisted of pig and ?horse teeth and horn core. These inclusions may have been deliberate or accidental but certainly do not represent offerings of food.



## Conclusions

Like many other Early Saxon cemeteries, that at Brunel Way was placed on high ground overlooking a river, in this case the Little Ouse. A possible contemporary settlement lay alongside the south bank of the river (Andrews 1995; Dallas 1993), the nearest known site of Early Saxon occupation to the Brunel Way cemetery being little more than 1 km distant. Three other Early Saxon cemeteries in the general area lie on the opposite bank of the river: Site 1757 (one burial) lies to the west, and Sites 5758 (three burials) and 5860 (weapon burial) lie to the south.

The eleven or so graves and thirteen individuals recorded probably represent a large proportion of the original cemetery population, although it is impossible to be certain. However, the cemetery appears to have been neither intensively used nor to have covered an extensive area; its limits have been defined fairly closely, except possibly on the west side in the area of a substantial railway cutting.

The orientation of the graves varied. Graves 13 and 17 also contained flint packing material seen as lines of stones, perhaps outlining coffins. The gravegoods seem entirely typical of 6th-century Anglian cemeteries. The copper-alloy penannular brooch with coiled terminals from grave 51 has parallels at Morningthorpe but is difficult to date (Mackreth 1987). These brooches have a long ancestry: it is interesting that grave 51 also contained both a wide-band and a narrow-band annular brooch, as well as a penannular brooch with overlapping zoomorphic terminals which is also difficult to parallel. The pair of equal-armed brooches from grave 9 are rather unusual, taking the form of opposed small-long brooch head-plates. Equal-armed brooches are not common and usually suggest overseas influence, in this case presumably Scandinavian (V. Evison *pers. comm.*).

The condition of the gravegoods varies. Some (the annular brooches and the small-long brooch) are very worn but several are so fresh as to suggest that they were hardly used. Grave 17 contained a cruciform brooch upon which tooling marks are quite evident around the headplate and on the reverse. The equal-armed brooches from grave 9 (not a true pair) are also in fine condition. A copper-alloy repair clip in grave 52 hints at a wooden vessel. There is also a suggestion that animal remains or 'tokens' were buried.

The cemetery at Brunel Way is an interesting addition to the known distribution of Early Saxon cemeteries in Norfolk, which has a strongly riverine tendency. This is noticeably so in the dry Breckland region in which Thetford lies, with cemeteries (and presumably settlements), along the Rivers Little Ouse and Thet. The apparently small size of the cemetery may also hint at the scale of any associated settlement.

July 1999

## ACKNOWLEDGEMENTS

The writers' thanks are owed first to Roy Rushbrooke, the discoverer of the site, for his dedication to recovering and recording all the material which came to light in building works at Brunel Way, Thetford. We are also grateful to Mr Jack Green of P.G.B. Builders Ltd., the owners of the site, who generously financed the writing of this report and the illustration of the material for publication. Roy Rushbrooke is grateful to Keith Seabrooke of Bure Contractors Ltd. for his willing co-operation and to Val Fryer for her help on the site. The figures are by Kenneth Penn.

We are pleased to acknowledge all of the specialists who have contributed to this report. The finds remain in private possession; the site archive is held by the Norfolk Museums and Archaeology Service



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*This paper has been published with the assistance of funding from the Norfolk Archaeological Unit.*