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Buckland, Dover, Kent  
Anglo-Saxon Cemetery

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Textiles  
Elisabeth Crowfoot

Most of the textile remains from Dover are preserved on iron objects, and the fibres have been completely replaced by metal oxides, leaving a cast of the fabric; the only exceptions are a few fragments of wool preserved on a brooch, and tiny thread scraps from a work-box. An impression of textile has survived in the chalk fill of a bucket.

No selvages or other borders have been preserved, but in the catalogue the closer thread count has normally been placed first, in the warp position, since in Anglo-Saxon textiles, woven on the warp-weighted loom, the warp count is generally the higher; the direction of spinning twist in the yarns is indicated by the letters S and Z; the abbreviation "replaced" is used throughout to indicate oxidisation of the fibres.

CatalogueGrave 1 (Female)17. Disc brooch

Back, replaced fragments, best 1.0 X 0.7 cm, Z,Z, medium fine tabby, count estimated c.16/16 threads per cm.

Grave 4 (Male)30. Spearhead (Pl. )

Two areas of same textile, replaced, lying at angles to each other, c.1.8 X 1.8 and 2.3 X 1.8 cm; warp possibly Sply, weft Z, weave tabby, count 8/14 threads per cm. On both pieces, holes left by passage of thick thread from embroidered or wrapped (soumak) pattern; the warps in the pattern rows are grouped alternately 2 and 1 on both pieces by the pull of the missing pattern thread; there are five throws of tabby between two pattern rows (fig.1). (see p.10).

Grave 5 (Male)36. Spearhead

On socket, replaced area 3.0 X 1.5 cm, spinning Z,Z, medium tabby, surface deteriorated.

Grave 8 (Male)48. Iron buckle

Area 3.5 X 2.3 cm, replaced fine Z,S, twill, regular four-shed with diagonals all lying one way, deteriorated.

Grave 9 (Male)59. Iron pin (?)

Area c.3.0 X 1.0 cm, replaced Z spun threads lying parallel lengthwise on the pin, ?possible pile or fringe. On another piece, smaller area of similar threads lying across; on loop, Z threads, possibly coarse twill.

Grave 10 (Male)64. Spearhead

On socket, replaced over area 5.0 X 2.0 cm, Z,Z, tabby, count c.14/10 per cm (7/5 on 5 mm).

Grave 13 (Female)111. Small long brooch

Against back, replaced area 0.8 X 0.2 cm, Z,Z, tabby, ?warp-face, fine, probably braid or border, 7 threads (2 mm)/4-5 threads (5 mm), i.e. count per cm c.35/9. On pinhead, small area replaced Z,S, twill, as below 111,113,116.

111. Iron pin

Replaced fragments, 1.5 X 0.8 cm, on part of pin, Z,S, four-shed twill, even spinning and weaving, count estimated c.16/14 per cm.

113. Bronze ring brooch

Traces probably same twill, Z,S, replaced on pin and ring.

116. Large key and ring

Traces replaced all over surface, best area c.2.0 X 1.0 cm, Z,S, fine twill, four-shed, possibly reverses, i.e. diamond, count estimated 14/12.

Grave 14 (Female)85. Round brooch with garnets

From back, fragments textile preserved, bright brown wool, Z,Z, tabby, count c.18/16 per cm (9/8 on 5 mm). Detached replaced scraps of same weave.

Grave 20 (Female child)127. Iron weaving batten (?)

Folds replaced textile, over parts of the surface on both sides, Z,Z, tabby, count estimated c.18/14 per cm.

132. Small square headed brooch

On pinhead, lump of deteriorated fine Z,S, twill.

Grave 22 (Male)96. Spearhead

All over one side of socket, long wavy fibres, replaced, some with occasional S twist, but appearance suggests fleece rather than a pile. On other side, area woven fabric, replaced, 0.5 X 1.5 cm, one system only visible, Z spun, probably tabby, either weft face, possibly a mat, count 6/18-20, or warp face braid, count 18-20/6 per cm (see p.9 ).

Grave 27 (Male)102. Iron buckle

Underneath, replaced area clear c.1.0 X 1.0 cm, both thread systems S spun, Z ply, twilled weave, probably a 2-hole tablet-weave with diagonals meeting in the centre or in bands, warps c.18, wefts c.12 per cm. (see p.11, and unassociated 657). Leather from belt under pin.

Grave 28 (Female)151. Iron ring

Impression, c.1.5 X 0.6 cm, Z,S, twill, surface confused but from different diagonals a diamond, count c.16/16 (8/8 on 5 mm).

Grave 29 (Female)406. Lock (?)

Textile replaced on both sides of one bar, the best area 2.8 cm long, going round the iron for 2 cm, and with smaller areas on other side; Z,Z, tabby, count 20/12 per cm; ?warp threads very regular, much finer than weft, consequently both are visible. At one side where the textile goes round the iron, coarse Z thread lying, ?sewing thread. Impression of coarser Z threads on ?leather further along the iron.

Grave 34 (Child)375. Iron buckle

Patches replaced on loop, best area 0.6 X 0.4 cm, Z,Z, tabby, count estimated c.18/14 (9/7 on 5 mm).

Grave 35 (Female)340. Keys

All along shaft, 5.0 cm long, 1.0 cm wide, pulled diagonally, replaced Z,Z, tabby, count 16/16 per cm, appearance suggests flax.

335. Brooch pin

Round pin, replaced tabby similar to that on 340.

Grave 36 (?)246. Iron buckle

Underneath, area 2.5 X 3.0 cm overall, Z,Z, tabby, irregular spinning, count 14/13 per cm. On top of buckle, coarser Z threads.

Grave 41 (Male)432. Sword

Replaced wood and possible fibres from fleece (?).

433a. Knife

Under leather of sheath, fragment 0.7 X 0.5 cm replaced textile, probably Z,Z.

433b. From purse mount

Lumps of replaced leather with textile impressions one side, and replaced area 1.5 X 0.7 on the other, Z,S, twill, threads damaged.

Grave 43 (Female)383. Keys

All over shafts, traces two replaced textiles:-

- (a) clearest patch c.2.0 X 1.0 cm, in two layers, and lying in curved folds, Z,Z, tabby, regular spinning and weaving, count 16/12 per cm.
- (b) underneath, against iron, area exposed 1.0 X 0.8 cm, finer Z,Z, tabby, count 28/24 (14/12 on 5 mm), probably flax.

Traces Z threads on iron pin 386, and leather on box fitting 385.

Grave 44 (Female)389. Knife

Replaced fragment c.0.8 X 0.6 cm, Z,Z, tabby, fine, count 22/22 (11/11 on 5 mm), probably flax.

Grave 48 (Female)305. Button brooch

Front, replaced fine Z,Z, tabby, see 307(b).

307. Iron chain

Two textiles, replaced:-

- (a) on most pieces of chain, best areas 1.0 X 1.7, 1.7 X 1.5 cm, fine Z,Z, twill, same type of broken diamond as fig.2, but remains suggest that it repeats on more threads, counts 16-14/12-10 per cm.
- (b) on two pieces, twisted scraps of Z,Z, tabby, count 16/12 per cm (8/6 on 5 mm).

Grave 53 (Female)170. Fill of iron hooped bucket

Impression in chalk, open tabby with fine threads, count 12/12 (6/6 on 5 mm clear); spinning direction probably Z, but not clear.

Grave 54 (Female)174. Keys

On decorated side, area replaced 1.0 X 0.4 cm clear, Z,Z, tabby, count estimated c.12/12 per cm. On other side, traces Z,S, textile.

Grave 55 (Female child)181. Iron and wood fragment

Area replaced c.1.7 X 1.5 cm, Z,Z, tabby, count 14/13 per cm.

Grave 56 (Male)188. Bronze buckle

Back, fragment tabby, Z,Z, count 16/12 (8/6 on 5 mm).

189-193. Bronze strap mounts

Traces of threads and tabby weave, Z,Z, on most pieces. On 190, clear fragment as on 188, similar count.

Replaced Z threads, textile deteriorated, on knife.183.

Grave 57 (Male)198 a,b,c. Buckle

Replaced area c.2.8 X 1.0 cm, Z,Z, fine tabby in folds, count 18/16 per cm.

Grave 59 (Female)202. Iron pin

Replaced area 1.5 X 0.8 cm, Z,S, fine twill, Z count c.6 on 5 mm, some coarser threads at end of piece.

Grave 61 (Male)217. Buckle

Underneath plate, replaced area 2.3 X 2.7 cm, Z,Z, tabby in folds, fine, regular, close, count 14-16/16 per cm, appearance of yarn suggests flax. On front, coarser replaced fibres.

Grave 62 (Female)221. Keys

Traces replaced fine Z,Z, tabby, count estimated c.20/14 per cm. Z threads, deteriorated, on iron ring.218 and bronze pin.227.

Grave 65 (Male)229. Spearhead

Replaced scrap, c.2.5 X 1.5 cm, Z,S, twill, count 8/8 per cm, probably a broken diamond of the type of fig.2, but too damaged to draw.  
Traces spun threads on iron shaft.1161.

Grave 66 (Female)236. Iron ring

Fragment replaced, Z,Z, tabby, count 14/10 (7/5 on 5 mm).

Grave 75 (Female)274. Keys

Replaced fragments in two places on shafts and on piece attached to bronze link, best 1.0 X 0.5 cm, Z,Z, tabby, count estimated c.18/14 per cm, one thread system uneven.

Grave 82 (Female)288. Keys

Fragment replaced 1.5 X 0.7 cm, Z,Z, tabby, count 14/10 (7/5 on 5 mm).

Grave 92 (Female)356c. Iron rings

Replaced areas, the best c.2.2 X 0.8 cm, going round the ring, Z,S, twill, probably broken diamond or chevron, as threads seem to reverse, count 14/16 (7/8 on 5 mm, lower count Z thread).  
Some Z threads from twill on pinhead of disc brooch.352.

Grave 94b (Male)394. Spearhead with gold bands

On ferrule, replaced areas of two textiles:-

- (a) over area 4.0 X 2.3 cm, and other scraps, Z,S, twill, from the diagonals a broken diamond, count impossible to take clearly, but c.12/10 per cm.
- (b) on the other side, in folds, clear for 2.0 X 1.0 cm, fine Z,Z, tabby, count estimated c.20/16 per cm. On replaced fragment from spear, over area 4.3 X 1.5, similar fine tabby, count 20/16 per cm.

Grave 96a (Male)416. Iron pin

Replaced fragment, 1.0 X 0.5 cm, Z,S, twill, from diagonals probably diamond or chevron, but surface deteriorated.

420. Shield Boss

Surface covered with replaced fragments, the best c.1.5 X 1.8 cm, Z,Z, fine open tabby, count 17/16 per cm.

Grave 96b (Male)421. Spearhead (Pl. ) <sup>A5769/4 10/10/61</sup>

On socket, replaced patch 2.8 X 1.4 cm, Z,S, broken diamond twill, count 11/9 per cm, (fig.2).

423. Knife

Replaced fragment 1.3 X 1.3 cm, Z,Z, fine tabby, count 16/16 (8/8 on 5 mm).

Grave 98 (Male)438. Shield grip

Replaced area 3.0 X 1.0 cm, and other patches, Z,S, twill, count 9/9-10 per cm; diagonals change direction half way across piece, indicating broken diamond or chevron.

Grave 107 (Female)451. Tweezers

Area c.2.5 X 1.0 cm, and folds near tip, (a) replaced Z,Z, fine tabby, uneven thread, count 20/16 (10/8 on 5 mm) appearance suggests flax.  
(b) under this, in one broken area, longer threads, Z, probably twill.

454. Workbox

Tiny flattened fragment, fibres breaking up, Z threads in two pieces, weave not clear. Fibre, HMA

Grave 113 (Female)477a. Keys

Replaced patches all over piece 3.5 cm long, fine Z,Z, tabby, count c.20/20 per cm; the fabric lies in folds, and shows part of a seam, either run and fell or double-hemmed, in coarse Z,Sply thread, stitches c.3 mm apart, and 3 mm long sjowing from other side of seam (Pl. ).

Grave 114 (Male)484. Iron buckle

Replaced patch on ring, 0.9 X 0.8 cm, Z,Z, tabby, count 24/20 (12/10 on 5 mm). Coarse Z,Sply threads tied round ring under another deteriorated patch of the tabby.

Grave 122 (Female)493. Keys

Fragments, replaced, the best 0.4 X 1.0 cm, and 0.7 X 0.8, Z,Z, tabby, counts variable, 12/10, 11/6 on 5 mm (22-24/12-20 per cm), appearance suggests flax.

Grave 124 (Female)497. Fittings of wooden box

Replaced in folds over area 2.8 X 1.0 cm, lying on top of leather, Z,Z, tabby, fine, count impossible to take, but finer than that in Gr.122.

Grave 127 (Female)506. Knife or razor

Replaced fragment 1.0 X 0.8 cm, Z,Z, tabby, count c.18/14 (9/7 on 5 mm).

507a. Iron ring

On back, all along ring, small replaced fragments lying for 2.5 cm along edge, width 0.7 cm at best; one system, ?warp, Z, the other S or probably S ply; weave ?warp-face tabby, count 28/8 on 5 mm, i.e. c.56/16 per cm, possibly fine tape (see p.9 ), but edges cannot be seen.

507b. Key shafts

On two pieces, same fine fabric as on 507a, best area c.1.0 X 1.7 cm, scattered fragments, again the ?warp goes round the piece as on edge of ring; a third piece shows tiny fragments and impressions over area 4.0 X 1.5 cm, but the breaks make it impossible to see if this is lines of tape or fragments of a continuous very fine fabric.

Grave 129 (Female)519a. Key shafts

Replaced fragments over area c.2.0 X 0.5 cm, Z,S, twill, probably broken diamond or chevron, but surface deteriorated, count estimated c.12/10 per cm.

519c. ?Manicure set

On head of iron piece, replaced 1.0 X 0.6 cm, Z,S, twill, four-shed, probably as on 519a, count 7/7 on 5 mm, c.14/14 per cm.

519d. Iron buckle

On back, replaced area 1.8 X 1.2 cm, Z,Z, medium fine probably tabby, but broken threads.

Grave 132 (Female)529. Keys

Fragments replaced on different pieces, the best in patches over 3.0 X 1.5 cm, Z,Z, tabby, counts 18/14, 16/12 per cm.

Leather on tip of knife.528.

Grave 137. (Male)394. Spearhead

On socket, replaced for 2.0 X 2.0 cm clear, Z,S, tabby, fine very regular thread, count 12/10 per cm.

Grave 139 (Male child?)558. Purse mount

Very deteriorated replaced textile all over one surface, Z,Z, probably tabby, but there seem to be parallel lines of Z spun and some S spun threads passing across the fabric which might be pile rows seen from the back of the weave; no count possible.

Grave 142 (?Female)570. Large single key

Replaced fragments over area 3.0 X 0.5 cm, spinning probably Z, but not clear, tabby, count 30/15 per cm (first count taken as 15 on 5 mm).

Grave 148 (?Female)589. Sharpening steel

Replaced fragment c.1.0 X 0.8 cm, Z,Z, tabby, lying in folds, count estimated c.20/16 per cm, threads packed at one side as if for selvedge, but no loops preserved.

590. Iron buckle

Underneath, area 2.5 X 1.5 cm, very fine Z,Z, tabby, count 28/18 per cm, may be better preserved piece of weave on 589. (14/9 on 5 mm).

Grave 155 (Female)602. Keys

Replaced fragments, best area 1.2 X 1.0 cm, Z,Z, tabby, fine, count 34/20 (17/10 on 5 mm clear); appearance suggests flax.

Grave 156 (Male)613. Spearhead

Traces fine replaced textile all round socket, best area c.4.0 X 2.5 cm, Z,S, twill, probably fine broken diamond or chevron, count estimated c.22/18 per cm, but surface deteriorated.

Grave 157 (Female)609. Keys

On one surface, clear area c.0.8 X 0.5 replaced, <sup>(a)</sup> Z,Z, tabby, count 9/8 on 5 mm, c.18/16 per cm. On other surface, traces similar weave over area c.2.5 X 2.0 cm, and small areas (b) Z,Z, tabby, very open and coarse, count 5/4 on 5 mm, c.10/8 per cm. Some coarse Z threads lying across. Traces of Z threads on iron fragment.2257.

Grave 160 (Female)631b. Keys

Very deteriorated replaced fragments, tiny scraps, Z,Z, possibly twill, type uncertain, count estimated c.20/20; Z,Z spinning suggests flax.

Grave 161 (Female)638c. Key

Replaced fragments, best c.0.8 X 0.5 cm, Z,Z, tabby, spinning uneven, count 9/8 on 5 mm, c.18/16 per cm.

637. Pin with bronze head

Fragment detached, replaced textile in folds, 1.6 X 0.6 cm, Z,Z, tabby, count 20/20 (10 on 5 mm), probably same as on 638c; probably flax.

Grave C (Male)52. Buckle loop

Fragment replaced textile against wood (?), 2.0 X 1.2 cm, Z,S, twill, lying in folds, but reverses in diagonals suggest diamond twill.

Grave F (7. Inlaid brooch

Fragment of twill round pin, possibly 2/1, but not clear.

Unassociated, 656. Bronze pin.

Replaced textile on pin head, one system of threads only partly preserved, broken diamond of the same type as fig.2, count estimated c.18/14 per cm.

Unassociated, 657. Fragment of scabbard

Under ?bitumen on one side, remains replaced probably from braid wound round top of scabbard, in two layers with 0.5-0.6 cm exposed; a small fragment lies across this, from which it looks probable that the total width of the braid was 0.7 cm. This appears to be a 2-hole tablet weave with meeting diagonals in the centre (cf. Grave 27.102, and p.11); wefts 12 per cm, twists estimated c.16 per cm.

Possible traces of leather were also found on objects from Graves 32 (344), 91 (329, rivets from shield boss); remains of Z,Z, tabby weaves too deteriorated for counts, from Graves 38 (262) and 131 (523); of unidentifiable weaves with Z spinning from Graves 39 (426), 59 (303), 63 (223) and 85 (299), and with Z,S, spinning from Grave 79 (282); and of wood and possible fibres from fleece from Grave 91 (332, sword).



The only fragments of woven fabric surviving from Dover are scraps of bright brown wool tabby weave from a garnet-decorated brooch in Grave 14, and tiny pieces of thread from the work-box in Grave 107, identified as

The oxidised "replacements" on metal goods, however, are, though small, in many cases extremely clear.

#### Tabby weaves

The proportion of tabby weaves to twills is unusually high, more than 2:1, a characteristic noted in two other Kentish cemeteries, Finglesham and Updown. The majority of tabbies are very similar in count, spinning and weaving to the Grave 14 woollen fragments, and are likely to have been of wool, but the appearance of some pieces with slightly higher counts, uneven yarn and soft folds (Graves 43.383, 44.389, 107.451, 122.493, 142.570, 148.590 and 161.637) suggests that these may have been linen.

One interesting tabby is that from Grave 137.394, a very regular piece of weaving with Z spinning in one system and S in the other, a combination used occasionally in Roman material and for the majority of good quality medieval tabbies, but rare in those of Anglo-Saxon date. There are, however, certain Anglo-Saxon weaves in which coloured stripes and checks can be identified by the use of groups of threads of different spinning directions in warp and weft<sup>1</sup>, and with only small fragments surviving it is possible that this tabby comes from a fabric of this type, and what we have here is part of a wide stripe.

On one side of a spearhead socket (Grave 22.96) is a tiny fragment of tabby in which only one system of close-packed threads is visible; this could come from a weft-face weave such as a mat - finer similar fragments on metalwork at Sutton Hoo suggested possible mats laid on the floor of the burial chamber<sup>2</sup>, and a replaced fragment from Kingston has a type of selvedge frequently found on rugs. Alternatively it may be a warp-face braid used as binding, or a wrist-loop. There are two other possible remains of warp-face tabby braids or tapes at Dover, a scrap on the back of a brooch (Grave 13.111), and very fine remains suggesting a flax tape wound round an iron ring and perhaps tying keys to it (Grave 127.507a,b); the quality of this, estimated at 56/16 threads to the cm, is not far from that of tapes wound round the top of scabbards at Sutton Hoo (62-64/23 per cm) and Broomfield Barrow (60/16)<sup>3</sup>.

Patterned or embroidered weave

One textile on a spearhead (Grave 4.30) is of considerable interest. Two fragments are preserved, lying at right angles to each other, from a tabby weave which must have had some form of decoration in heavy thread, either embroidered or in a wrapped (soumak) technique. The pattern thread has disintegrated, but the pairs of holes opened by its passage between warp threads, grouped alternately one and two, are clear on both pieces (Pl. ,fig.1). This appearance at once suggests the grouped warps and holes of the replaced textile with soumak decoration, SH 7, on chainmail in the Sutton Hoo ship<sup>4</sup>, a feature that can also be seen where the pattern thread has decayed on fragments of tabby with soumak decoration from Taplow Barrow (purple wool on white linen) and Valsgärde in Sweden (probably undyed wool on blue linen)<sup>5</sup>. Later examples in this technique from the Oseberg ship (Viking)<sup>6</sup> and from Skog<sup>7</sup> and Överhogdal, Norway (medieval)<sup>8</sup> have been used as hangings; the Sutton Hoo cloth has been folded up, and was obviously also a large piece. With so little of the Dover textile remaining it is possible that the holes were caused by some form of embroidered decoration; H.-J. Hundt has suggested Persian stitch, a form of herringbone, as the cause of very similar holes on a much earlier silk fragment from Athens<sup>9</sup>. At any rate it is clear that a patterned cloth lay across the spearhead.

Twill weaves

Most of the twills are lightweight four-shed weaves. The spinning in all but two is Z (and S) and from the evidence on sites where selvages or borders have been preserved, the Z system is likely to be the warp. At this period the use of different spinning directions in warp and weft indicates good quality twills, though after the late 7th century Z spinning in both systems becomes the rule even for very fine woollens. It is possible that the two Z spun twills here (Grave 48.307(a), 160.631b) were of flax. There are indications that most of these Dover twills, whether light or medium weight, had four-shed patterns, either chevrons or broken diamonds (fig.2) of a type found in many Anglo-Saxon cemeteries<sup>10</sup>. There seem to have been none of the coarse simple diagonal twills, but with such small oxidised fragments preserved it is possible outer layers of heavier fabrics may have been lost.

Tablet weaves

In two cases (Grave 27.102, unassociated find 657) remains of braids are of a type made with 2-hole tablets to produce a fairly coarse twilled effect; in the first case this may have been a border to some garment, in the other a narrow braid used as binding for the top of a scabbard. Insufficient was present in either case to be drawn, but they can be recognised as of a type found both in England and Norway<sup>11</sup>.

?Pile weaves

On one side of the spearhead from Grave 22, long fibres are replaced, whose wavy appearance suggests a sheep's fleece; they seem to be unspun, but even so could possibly come from a pile weave, since a fragment from Banstead Down was decorated with pile rows of silky unspun locks. One other object (Grave 139.558) may possibly show the reverse of a pile weave.

Garments and furnishings

Most of the textile remains are suitable garment fabrics, woollen or linen tabbies and twills for tunics, trousers, gowns and head-coverings, preserved on the metal objects that fastened them or lay against them. In one case a seam is preserved, on keys in a woman's grave (Grave 113.477a) (Pl. ), either the side seam of her skirt, or perhaps the seam of a bag or purse also hanging from her belt. The tiny remains in the work-box in another woman's grave (Grave 107.454) suggest that as in other cases this may have contained fragments of some treasured fine weave.

The presence of good quality fabrics on spearheads and in the chalk fill of the bucket (Grave 53.170) does suggest that perhaps a light cloak or blanket may have been laid over the whole contents of graves, but so far it is impossible to say if this practice, general in Scandinavian burials of much earlier periods, continued in Anglo-Saxon cemeteries. A grave at Eriswell, Suffolk, however, was described by the US Air Force excavators as having had "heavy fabrics over the whole body"<sup>12</sup> but these presumably disintegrated on removal, and nothing said to be from this layer was presented for examination.

The general impression that emerges from the remains from Buckland is of good workmanship, a high standard both of spinning and weaving, and a uniformity that suggests either a strong local tradition, or perhaps the presence of some professional weavers in the community.

Notes

- 1 Updown, Graves 14,29; Finglesham, Graves 8,169; Worthy Park, Hants, Grave 75; Mucking, Essex, Graves 448,975.
- 2 Rupert Bruce Mitford, The Sutton Hoo Ship Burial I,1975,p.476
- 3 ibid. p.465, figs.356,357(a).
- 4 ibid. SH 7, fig.360.
- 5 Greta Arwidsson, Valsgårde 6, Uppsala,1942,p.87ff., pl.40.
- 6 Bjørn Hougen, "Osebergfunnet billedvev", Viking, 1940, Abb.2-4.
- 7 Arwidsson, op.cit. figs.69,70.
- 8 Marta Hoffmann, The warp-weighted loom, Oslo,1964, pps171-2, figs.82,83.
- 9 Hans-Jürgen Hundt, "Über vorgeschichtliche Seidenfunde", Jahrbuch des Romisch-Germanischen Zentralmuseums Mainz, 1969,p.69,pl.15.
- 10 Bruce Mitford, op.cit.SH 1,9, figs.326,334; E.Crowfoot in Hilda R.E.Davidson & Leslie Webster, "The Anglo-Saxon burial at Coombe, Kent", Med.Arch. XI,1967, fig.7; E.Crowfoot in P.J.Tester, "Excavations at Fordcroft, Orpington", Arch.Cant. LXXXIV,1969,51; examples from Mucking, Essex; Fonaby, Lincolnshire; Sewerby, Yorkshire; Welbeck Hill, Irby, Lincolnshire; Updown, Kent; Worthy Park, Hants; unpublished.
- 11 Wakerley, Northants, Grave 78; Hans Dedekam, "To tekstilfund fra folkevandringstiden", Bergens Museums Aarbok 1924-25, pp.42-45, figs.21,22.
- 12 Patricia Hutchinson, "The Anglo-Saxon Cemetery at Little Eriswell, Suffolk", Proc.Camb.Ant.Soc. LIX,1966,p.12.

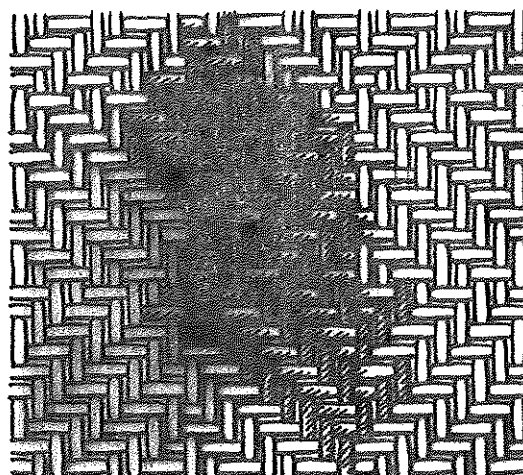


Fig.2. Diagram of broken diamond twill weave.  
(Shaded threads as preserved on  
spearhead from Grave 96b.421)

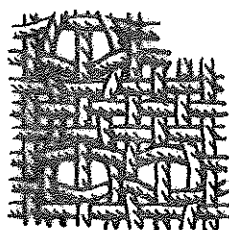


Fig.1. Diagram of ground weave (pattern  
threads missing) from spearhead  
Grave 4.30.