

# Costume in the Early Anglo-Saxon Cemetery at Saltwood, Kent

## Part 2 Textiles and costume

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## Part 2: Costume and textiles

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### Introduction

The clothing in which the Anglo-Saxon dead were buried can be reconstructed from the position on the body of garment fasteners, such as brooches, buckles and pins, and from the mineral-preserved textiles adhering to them. The preservation of textiles at Saltwood was relatively poor, but a Kentish sequence for women's costume had already been identified during research of the better-preserved material from Dover Buckland (1994) (Walton Rogers forthcoming), and the more fragmentary Saltwood evidence can now be slotted into this framework. The adult female costume was the easiest to reconstruct, but textiles on buckles, knives and weaponry have also been recorded in the graves of men and children.

There are no examples at Saltwood of the earliest Kentish costumes, Dress Styles I and II, from Dover Buckland (1994) Phase 1a-b (*c* 450-500). Dress Styles III and IV were contemporary with each other, mostly in DB 1994 Phase 2a-b (*c* 500-550), but only four examples of Style IV have been identified at Saltwood, and also four of Style V (DB 1994 mainly Phase 3a, *c* 550-600). Dress Style VI (DB1994 Phase 3b-7, *c* 600-700), however, which is the most ephemeral and difficult to identify, is represented by at least ten burials. The distribution of the costume styles across the site reflects the period of use of the three cemeteries, classic Style IV in the Western cemetery, late variants of Style IV in the Eastern Cemetery, and Styles V and VI in the Central and Western cemeteries.

As with all Anglo-Saxon cemeteries, the evidence tends to come from graves well-furnished with metalwork and there remain some 78 graves with no artefacts of any kind and a further 49 in which no textile or garment fastener has been recorded, so that the following summary is based on only 78 of the 205 inhumations at the site. To some extent this absence of data is due to the simplification of 7th-century women's dress, which requires few clasps. The unfurnished burials in the northern part of the Central cemetery, however, and the rectangular extension east of the trackway seem to represent late use (Riddler and Trevarthen 2006), possibly extending into the period in which bodies were shrouded rather than clothed. It may be argued that this change to shrouded, unaccompanied burial derives not from the Christianity introduced by Augustine's 6th-century mission to Kent, but from the later influence of the Church of Iona,

filtering through from the north and bringing with it the burial ritual of the Irish church (O'Brien 1999, 52-3, 141).

### The textiles

Textiles were noted in 42 graves, 29 from the Central cemetery, 19 from the Western and four from the Eastern. It was not possible to record full technical details in every case, but Table 1 summarises the 68 textiles from 35 graves where spin, weave and thread-count could be determined. Fibres were identified using optical microscopy and since it was rarely possible to distinguish between flax and hemp, the term 'linen' has been used to cover all plant-fibre textiles. No examples of nettle fibre were observed.

*Table 1: Summary of Saltwood textiles, from 42 graves*

The figures appear in the order Central + Western + Eastern cemeteries

<i>Textile type</i>	<i>Wool</i>	<i>Linen</i>	<i>No fibre ident.</i>	<i>Total</i>
ZZ tabby	2 + 0 + 0 = 2	6 + 2 + 0 = 8	11 + 2 + 1 = 14	24
ZZ tabby repp	1 + 0 + 0 = 1	0 + 1 + 0 = 1	5 + 2 + 1 = 8	10
ZZ tabby open	1 + 0 + 0 = 1	0 + 1 + 0 = 1	1 + 0 + 0 = 1	3
ZS tabby	1 + 0 + 0 = 1	0	0 + 1 + 0 = 1	2
ZS tabby repp	0	0	1 + 0 + 0 = 1	1
ZZ 2/2 twill	0	0	2 + 1 + 0 = 3	3
ZZ 2/2 diamond	0	0	0	0
ZS 2/2 twill	2 + 0 + 0 = 2	0	2 + 3 + 0 = 5	7
ZS 2/2 diamond	5 + 0 + 1 = 6	0	5 + 1 + 0 = 6	12
tabby tapes	0	0	2 + 0 + 0 = 2	2
tablet-woven bands	0	0	2 + 1 + 1 = 4	4
<b>TOTAL</b>	<b>12 + 0 + 1 = 13</b>	<b>6 + 4 = 0 = 10</b>	<b>31 + 11 + 3 = 45</b>	<b>68</b>

### *Tabby weave*

The most common fabric type is tabby weave made with Z-spun yarn in warp and weft (ZZ tabby) (Fig.20a). It is represented by 37 examples from 26 graves and thus makes up 54% of the Saltwood textiles, which is a typically high proportion for cemeteries with a strong 7th-century component. The percentage is higher still, 66%, for those graves firmly attributed to Phases 4-6, and is comparable with 65% in the late 6th- and 7th-century graves at Dover Upper Buckland (E Crowfoot 1987a) and 63% in the 7th-century burials at Castledyke, Lincs (Walton Rogers 1998, 274-5). A recent national survey has shown that ZZ tabby was already in existence in the 5th

century, but around AD c.600 it started to become noticeably more common in burial textiles (Walton Rogers in press). This is part of a broader change affecting other parts of north-west Europe, including Scandinavia and the Merovingian world (Bender Jørgensen 1992, 136-7, 140-1), and it probably results from Mediterranean fashions flowing into the north.

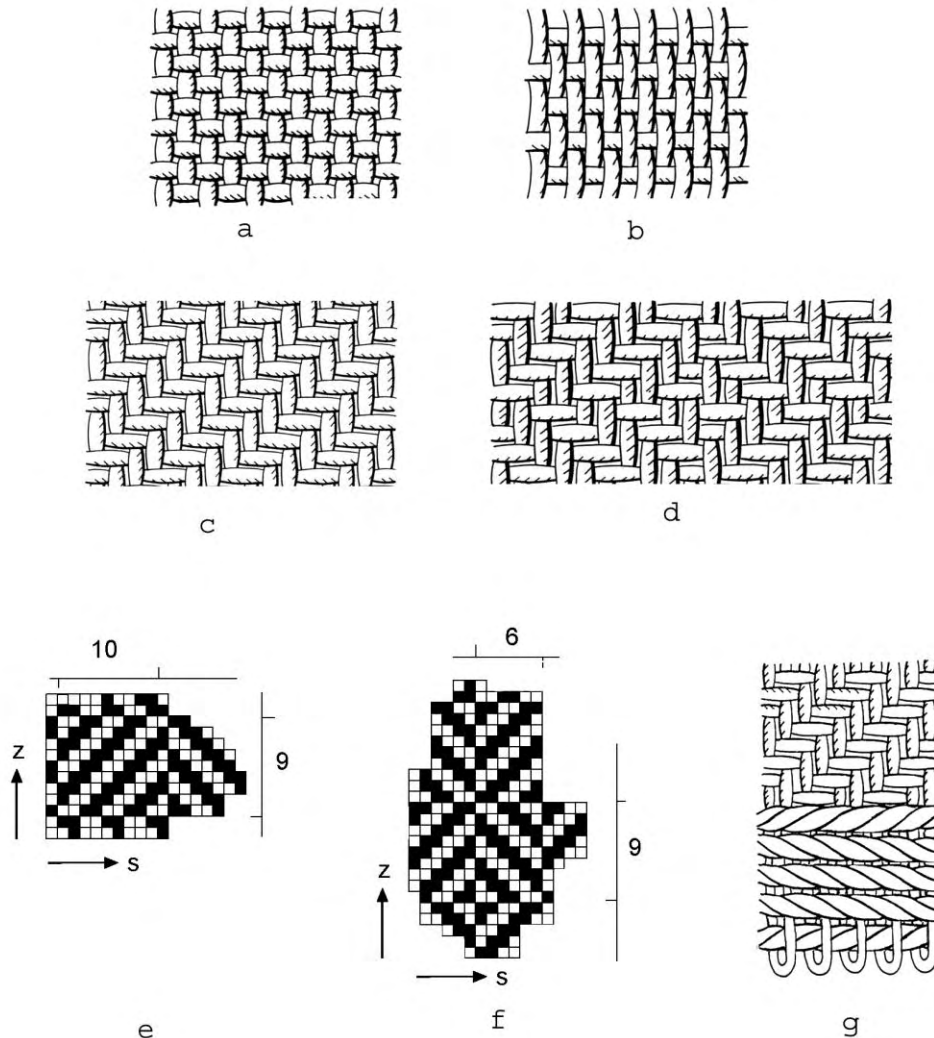


Fig.20: The weaves of the Saltwood textiles. (a) Tabby, (b) tabby repp, (c) plain 2/2 twill, (d) 2/2 diamond twill, (e) the pattern repeat of the diamond twill on ON 1139 from Central cemetery grave C1188, (f) the pattern repeat of the diamond twill on ON 2661 from Central cemetery grave C6673, (g) the border on twill on ON1091-3 from Central cemetery C1145.

ZZ tabby includes plain tabby and its variants, repp and ‘veil-weave’, which is an open net-like fabric. Most of the plain ZZ tabbies are linens, in medium and fine qualities with thread-counts of 10 x 10 to 26 x 18 per cm: from their position on the body they can be interpreted as the fabrics of inner and outer garments for men, women and children. Two unusually coarse examples from

Central graves C1261 and C1267, on the other hand, have thread-counts of 5 x 5 and 6 x 4 per cm and are wool. In C1261 the textile lay underneath keys in the region of the legs in a female-gender burial (Phase 3b-4), where it may represent a blanket or grave lining and in C1267 it was on the socket of a spearhead (Phase 4), which would allow interpretation as a spear wrapper.

ZZ tabby repp is woven with one system of threads lying straight while the opposing threads weave round it, so that it has a slightly ribbed appearance (Fig.20b). There are single examples of this weave from ten graves at Saltwood, their thread-counts ranging from 16 x 7 to 27 x 12 per cm and most are linen, although one piece from the Central cemetery, grave C1137, is wool. All ten examples were at the waist, on the backs of belt buckles, brooches, rods, keys and knives in the graves of men, women and children. At least half belong to the 6th century (Phases 2 and 3), but there are also examples from 7th-century graves (Phases 4-5) such as Central C1138, C1188 and C1261. This pattern was also noted at Dover Buckland where tabby repp, mostly linen (ZZ) but sometimes wool (ZS), was particularly common in 6th-century graves, almost always on the backs of buckles and with other items at the waist (Walton Rogers in press and forthcoming). The repp weave gives a tough fabric, nowadays used for linings and belts, and it may represent either a solidly made inner dress or perhaps some sort of cummerbund worn under the belt, in the manner of the Roman military *fascia ventralis*.

Two of the ZZ tabbies, from Central cemetery graves C1137 and C6520, are open, net-like weaves, woven from fine yarn which was certainly wool in the case of C1137 and probably wool in C6520. In C1137 the textile was the topmost layer on keys in the region of the left hip or thigh and in C6520 it was also on keys, although their relationship to the body was unclear. This distinctive fabric type emerges in Late Anglo-Saxon and Viking Age sites in long narrow pieces, 85-255 mm wide (most commonly 150-240 mm). In Anglo-Saxon cemeteries it has been found on the shoulders in 6th-century women's graves in Yorkshire where it has been identified as part of a head-veil or scarf (Walton Rogers in press), and in a 7th-century grave at Dover Buckland (1994) on objects by the left knee, where it was interpreted as the end of a sash (Walton Rogers forthcoming, grave 353). The Saltwood examples may also be 7th-century (C1137 Phase 3-6, C6520 Phase 4a-6) and their position on girdle accessories would allow a similar interpretation.

Three 7th-century examples had yarn spun Z in one direction and S in the other, which is unusual for tabby at this date. One was a ribbed piece on a pin at the throat in Central cemetery grave C6516 (Phase 4b-6) which may have been a selvedge or a garment border. Another was woven in wool and was associated with a fringe on a knife in the region of the waist in Central C1138 (Phase 4-5), where it may represent a tabby-weave finishing border. The third was a fine piece, less certainly tabby weave, on some keys in Western cemetery grave C6202 (Phase 4-5).

### *Twill weaves*

2/2 twill woven with Z-spun yarn in warp and weft (ZZ) was the single most common clothing textile in the 5th and early 6th centuries, but it was largely displaced by ZZ tabby and ZS 2/2 twill during the course of the 6th century, except for some examples in linen (Walton Rogers in press). At Saltwood there are only three representatives of ZZ twill, Western cemetery C3944, Central cemetery (East) grave W1124 and Central cemetery grave C1325, from Phases 3 and 4. The fibre was not identified in any.

There are 19 examples of ZS 2/2 twill, some or all of which are wool (Fig.20c). At least twelve of the 19 have a broken diamond pattern, which is a common feature of ZS wool twills from the 6th to the 10th century (Fig.20d). Part of the pattern repeat could be recorded in three graves: it was 20 x 18 (10 x 9 between reverses) in Central cemetery grave 1188 *ON 1139* (Fig.20e), and possibly also Central grave C1145 *ON 1091-3*; but there were 6 x 9 threads between reverses in at least one area of the diamond twill on *ON 2661* in Central grave C6673 (Fig. 20f). ZS twills were recorded in coarse, medium and fine qualities, with thread-counts from 7 x 6 to 20 x 20 per cm. The coarsest example from Central grave C1138, on latch-lifters *ON 1108*, is slightly matted, although this may be from frequent washing rather than deliberate soft-finishing. A textile with a denser nap was recorded on the pin of a square-headed brooch *ON 1977* in Western grave C3747, where it probably represents the fabric of the 'Frankish coat' (see below), and there was another on the front of the possible Langobard-Byzantine buckle in Central grave C1261 (see below). ZS twills, including diamond twills are found throughout Anglo-Saxon England and across the North Sea in the Frisian region. They occur in a wide range of qualities and were probably a standard in the villages and farmsteads of the period, although it has been suggested that the 20 x 18 pattern repeat represents at least part of the fabric traded under the name 'Frisian cloth' (Bender Jørgensen 1992, 142-3). In England, the pattern repeat has previously been found in six graves in Kent, one at Park Lane, Croydon, and three more from Sutton Hoo (Mounds 1 and 17) (Walton Rogers in press).

The diamond twill from Central grave C1145 has a tablet-woven border five cords wide. The border runs parallel to the S-spun system, which is usually the weft and judging from the way that the single Z-spun yarns turn back into the tablet weave, it is probably a closing border (Fig.20g). The border runs diagonally over the sword *ON 1091-3* at the man's left waist and it seems likely that this represents a flap of the man's cloak covering the tip end of the sword. There is a parallel for this at Coombe (Woodnesborough), where there was a wool diamond twill of similar quality (14Z x 12S per cm, the Saltwood example being 12-14Z x 8-10S) with the same 20 x 18 pattern repeat, on a sword and a copper-alloy cremation urn (E Crowfoot 1967). There

was another in the 7th-century barrow at Broomfield, Essex (textile B2), although this was much finer at 32-34Z x 23-26S and the pattern repeat was 24 x 18, but it too was recorded on the tip end of a sword (E Crowfoot 1983, 468). The Saltwood border was worked with five warp cords in the tablet weave (twisting SZZZS), the Coombe example on six and the Broomfield on four. The way that the warp threads turn back into the weave is different on each, but they obviously belong to the same technological group, with parallels in Late Roman Iron Age Thorsberg, Schleswig, Corseltize, Denmark, and Migration Period Snartemo, Norway (E Crowfoot 1983 *ibid*).

#### *Tapes and tablet weaves*

Narrow woven bands were detected in seven graves, three tabby-woven, three tablet-woven and one represented by gold brocading. Two swords, from Central cemetery graves C1048 (Phase 3b-4a) and C1081 (Phase 3b-4), had remarkably fine tabby-woven tapes, 40/Z x 18/Z and 40-50/Z x 16/? per cm, wrapped spirally around the upper part of the scabbard. The full width of the tapes is not visible, but on the sword from C1048 there are 26 circuits over 110 mm, and on the sword from C1081 the tape covers at least 130 mm of the scabbard (for details of the scabbard construction, see Cameron in Ager *et al* this volume). These thin, fine ZZ tabby tapes seem to be exclusive to sword scabbards and may represent a specialist product (Walton Rogers in press). Although their quality suggests linen, in no case has the fibre been confidently identified.

A tabby-woven warp-faced band, coarser than those used on the swords, runs across the stem of the radiate-headed brooch *ON 2007* in Western cemetery grave C3762. Its close-set warp and ribbed appearance suggests that it is an attempt to replicate in a simpler weave the appearance of the patterned repp-effect tablet weaves recorded in the same position in five graves at Dover Buckland (1994). A poorly preserved band on a square-headed brooch *ON 302* from Eastern cemetery grave W1762, made from a coarse-fibred linen plied in warp and weft, is almost certainly a genuine example of the same. The better preserved Buckland bands had a geometric pattern and formed part of a vertical garment border, which is probably also the function of the two Saltwood examples (see below, costume).

A detached fragment of twill-effect tablet weaving was associated with the copper-alloy strap mount *ON 1126* in Central cemetery grave C1138 and seems to represent a rare example of a woven belt. It has a pair of tablet cords down one side, bordering a zone which has the appearance of twill on one side and tabby on the other. A number of extremely sophisticated twill, twill-effect and double-faced twill tablet weaves are to be found in Migration Period graves in Scandinavia, and a few occur in cemeteries of the Anglian region at the same time (Walton Rogers in press). By the 7th century, however, their distribution had become more diffuse and the

closest parallel for the Saltwood example is a non-patterned twill-effect tablet weave from a 7th-century relic box in Sibertswold grave 60, which has panels of twill on both faces interrupted by single tablet-woven cords (E Crowfoot 1990, 49, 53; re-assessed in Walton Rogers in press). Saltwood C1138 is also a late grave, from Phases 5-6.

The third tablet weave runs across the back of buckle *ON 1165* from Central cemetery grave C1261 (Phase 4b-5). This has been woven on two-hole tablets and the tablets have been rotated in two decks, one alternating with the other: both these features give a thinner band than is usual with four-hole tablets or tablets rotated as a single deck. Other examples of this technique have been recorded in Migration Period graves, at West Heslerton, North Yorkshire, grave 62 (Walton Rogers 1999, 150-1), at Morning Thorpe, Norfolk, grave 334B (E Crowfoot 1987b, 181) and at Wakerley, Northants, grave 78 (E Crowfoot 1989, 171), and there was another in a 7th-century burial at Dover Buckland (1994), grave 376, Phase 6 (Walton Rogers forthcoming).



*Fig.21: Flat gold strip, 0.8-1.2 mm wide, ON 1966 from Western cemetery grave C3741.*

Some of the gold thread recovered from Western cemetery grave C3741, *ON 1966*, represents the brocading element from a tablet weave. It zig-zags back and forth over an area 5 mm wide and it has distinctive dips in the filament where it will have engaged with the ground weave. This brocaded area, however, is relatively short – perhaps a couple of centimetres in length – and the



rest of the gold thread is represented by six individual straight lengths, 35 to 140 mm long, 0.8-1.2 mm wide, some of which have a neatly turned back end (Fig.21). There appear to be two different qualities of gold present (Gilmour this volume), but both are relatively high carat (87%-93% gold). The threads were recovered from the back of the head of a young woman aged 15-25 years, and it seems likely that they represent some form of dressing for the hair or a trim on a headdress.

Twenty-five examples of gold brocading have been recorded in 6th-century women's graves in East Kent and in single burials with Kentish accessories at Shalfleet, Isle of Wight, and Holywell Row (Mildenhall), Suffolk (Crowfoot and Hawkes 1967; Brugmann 1997, 31-2; Walton Rogers forthcoming). There are also two examples in 7th-century men's graves, at Taplow, Bucks (Crowfoot and Hawkes, *ibid.*), and Prittlewell, Essex (E Barham pers.comm.), although the brocading was used differently for men, probably as the border on a jacket. In women's graves it has sometimes been found on one wrist, but more often it occurs by the head or neck, where it may be identified as a headband or trimming on a veil. The woman with the most extensive gold thread, in Mill Hill Grave 105C, was aged 30 to 40 (Brugmann *ibid.*), but many of the others were teenagers and young adults, as at Saltwood.

### **Animal pelts and leather**

Fine animal fibres were noted in Central cemetery grave C6673, on spearhead *ON 2661* (Phase 4-5). They have the ladder medulla of small fur-bearing mammals and a chevron scale pattern which is most like squirrel, rabbit (unlikely at this date) and hare (Appleyard 1978). The fur was in association with a ZS diamond twill on the socket of a spearhead, in the region of the man's shoulder, where it may represent a shoulder cape or hood. Remains of another coarser-fibred animal pelt were found on another spearhead socket, in Western cemetery grave C4707 (Phase 4), this time to the right of the head, in association with a linen tabby and some feathers, where they are more likely to form part of a grave lining under a pillow.

Leather used for scabbards has been discussed elsewhere (Cameron this volume), but some belt straps have been described below (*Costume in men's graves*) and thongs were also recorded during the textile study. In a girdle complex from Western C4699 (Phase 5-6), a thong 8 mm wide which had been attached to a D-shaped suspension ring *ON 2157*, by threading one end of the thong through the D-ring, then back through a short slit cut into its own opposite end. There was another leather or skin thong, 6 mm wide, threaded through a broken buckle loop in Western cemetery grave C4688, *ON 2221* (Phase 3).

## Costume

### *Dress Style IV and its contemporaries*

Classic examples of Kentish Dress Style IV are present in two well-furnished women's graves, Eastern cemetery graves W1453 and W1762 and there are two late variants in Western cemetery graves C3747 and C3762. The standard Style IV costume consists of a single vertical row of four brooches, two small above two larger crossways bow brooches, which is the Kentish equivalent of the Continental 'four-brooch costume' (Fig.22, left).

At Dover Buckland (1994) it was possible to show that the top two brooches clasped the front opening of a linen garment, probably a dress, which was fastened at the waist by a buckled belt. The lower bow brooches clasped an outer garment, dubbed the 'Frankish coat', which is made of fine diamond twill and has vertical tablet-woven bands edging the front opening. Tabby repp was often associated with objects at the waist and the belt worn inside the coat, usually had a shield-on-tongue buckle and ornamental rivets. The ensemble was completed with long strings of amber and gold-in-glass beads. This is predominantly a costume for women over the age of 25 years, but those rare younger women and teenagers who wear the style often have gold thread at the head as well, emphasising that these are probably women of rank (e.g. Dover Buckland 347 and 391B). Dress Style IV was worn mostly in the first half of the 6th century, in Dover Buckland (1994) phases 2a-b.

At Saltwood, the body aged 25-35 in grave W1453 has a vertical column of two matching quatrefoils above two matching bow brooches, with a buckle at the waist (Fig.22, centre). The bow brooches are set quite high on the waist, an arrangement which on the Continent is most common in graves west of the Rhine (Martin 1991, 656-8). Bow brooch *ON 43* clasps a fine wool ZS diamond twill with traces of a border running across the line of the brooch; linen threads tied to the pin spring of bow brooch *ON 78* may represent a supplementary fastener, comparable with the leather thongs seen in a similar position at Dover Buckland (1994) grave 281 and Waging am See, Traunstein, southern Germany, grave 105 (Bartel and Knöchlein 1993, 428-31, 433, 437).

Fine linen from the inner dress was detected on the back of both quatrefoil brooches, *ON 105* and *ON 119*. There was no evidence for the needle-worked button loops of the sort found on the inner dresses at Dover Buckland (1994), but a variety of threads and cords knotted around the brooch pins may represent an alternative form of fastener, or perhaps cords for bead-strings. There were 201 beads, predominantly amber with some gold-in-glass and blue annular beads (Hirst Group 1), arranged in two long loops which snake across the body.

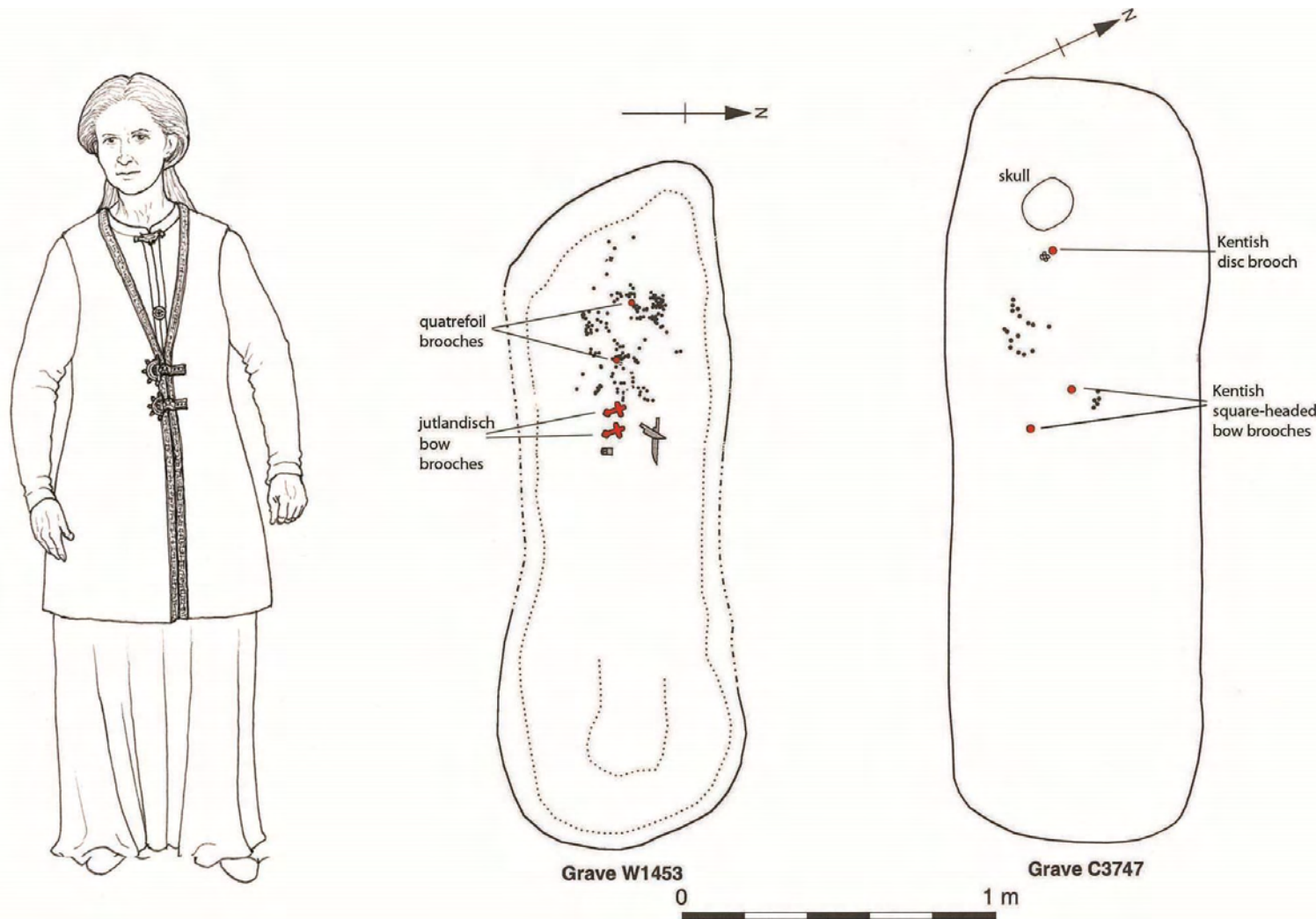


Fig 22: Left, Frankish coat over belted dress, based on evidence from Dover Buckland; centre and right, position of objects in two graves at Saltwood, W1453 and C3747. Brooches marked in red; black dots indicate beads.

In grave W1762, a body aged 25-40 has a Kentish bird brooch and a Continental silver disc brooch above a pair of Kentish square-headed brooches, combined with a buckle and a string of 31 amber, gold-in-glass and blue annular beads (Group 1). The lower of the two square-headed brooches, *ON 302*, is skewed out of line and this is reflected in the (tablet-woven) warp-faced band on the back which runs diagonally across the line of the pin. There is a correspondence between this burial and that at Dover Buckland (1994) grave 419 where a woman aged 30-35 had been buried with almost identical bird and disc brooches, also with an amber and glass necklace. The Buckland burial represents Dress Style III, that is, the dress without the Frankish coat.

In grave C3747 a probable woman aged 20-30 has a single Kentish disc brooch at the throat, combined with a pair of crossways square-headed brooches lower down (Fig.22, right). There is no belt buckle and amber is the only material of the 61 beads (Group 1). Cords on the back of the disc brooch may represent fastening loops for the dress, or bead strings. The textile clasped by the upper square-headed brooch *ON 1977* is not the usual diamond twill, but a matted fabric, possibly deliberately soft-finished. In grave C3762 a body aged 18-25 has a Kentish disc brooch at the throat and a crossways radiate-headed brooch in the region of the waist, close to the buckle, and there is a string of 50 beads, predominantly amber (Group 1). The costume in these two graves belongs to Style IV, but the Kentish disc brooch at the throat is likely to represent a late development as the costume moved towards dress Style V: similar intermediate fashions combining Kentish disc brooches with crossways bow brooches have been identified at Mill Hill in Mill Hill Phase iii (AD c. 530/40-560/70) (Brugmann 1997, G25B, G102 and G105C)

At Dover Buckland and Mill Hill, some women, mostly the younger ones, wore only the top two brooches combined with a buckle, Dress Style III, which probably represents the belted inner dress with front slit opening, worn without the Frankish coat. There were no examples of this arrangement at Saltwood (although, as noted above, a comparison can be made between a Style III dress at Dover Buckland and a Style IV ensemble at Saltwood), but there are four graves of youngsters with female accessories which appear to be contemporary with the Style IV graves described above, Western cemetery graves C3741, C4643 and C4684 and Eastern cemetery grave W1462. Grave C3741 is a disturbed and truncated burial of a 15-25-year-old, who has shield-on-tongue buckle, a single amber bead and the gold-thread headdress or hair ornament. As already noted, gold thread was often worn by younger women and girls, but when combined with adult accessories they were mostly of Style IV (occasionally of Style V).

C4643 was a small grave with no bone present, but two worn brooches, a button brooch and a square-headed brooch in the region of what must have been the waist, with a key and a bead. If this is a child's grave, then the brooches must be hand-me-downs, although they seem to

have been a functioning part of the clothing, to judge from the fine linen clasped by the square-headed brooch and the tabby repp on the key. The square-headed brooch was probably manufactured during Phase 2, although the date of the burial must be regarded as open. Grave C4684 is another small grave without any skeletal remains, but there was a long iron pin with textile (weave not identified) twisting around its shank. The length of the pin indicates a date before the late 6th century, when pins shortened. Grave W1462, possibly the burial of a teenager, has no metalwork or textiles, but has been attributed to this phase on the basis of one gold-in-glass and one amber bead (Group 1). Thus, while senior women wore the full-blown costume suite of belted linen dress, diamond twill jacket and long strings of beads, young girls probably wore a simpler range of clothing.

#### *Dress Style V*

Dress Style V is characterised by particularly large and elaborate necklaces incorporating small coloured glass beads, combined with a buckled belt which often has a long pendent end. In some instances, especially amongst the over-25s, there is also a single Kentish disc brooch at the throat and a pin on the chest. The textile evidence shows that a linen inner dress with a vertical front slit was still being fastened by the belt, although it is still not clear whether the tabby repp often found on the backs of the belt buckles represents the linen dress or a cummerbund. There was a wool diamond twill garment on top and a long veil or shawl of fine linen reaching to the lower hip. This style at Dover Buckland (1994) was dated to Phases 2b and 3a, the mid to late 6th century.

At Saltwood there were three obvious examples of Style V, Central cemetery graves C1138 and C1216 and Western cemetery grave C4659. In C1138 there was a large bib of 131 beads, predominantly small green and yellow (Hirst Group 3), stretching from shoulders to waist on a body aged 25-45, and there was a short pin on the chest and a buckled belt with a belt mount by the thigh. There was a fine linen tabby repp on the back of the buckle and two wool twills were found on top of the latch-lifters, although their coarse nature suggest cloaks or grave covers. A fine wool tabby with a fringed edge in the region of the waist may represent a more lightweight shawl. Buckled belts at this date are usually made of leather, but a patterned tablet weave (see above), detached from, but associated with, the strap mount by the left thigh may represent an unusual example of a woven belt.

In C1216, a small grave with no bone preserved, there was a dense band of 133 Group 3 beads in the region of what may have been the chest, and a buckle in the waist area. From comparison with other sites, it seems likely that the close folds of textile running down the latch-

lifters represent the long veil. In C4659, the grave of a 20-30 year-old, there were 84 Group 3 beads in another large bib, but no textile and no other accessories other than a copper-alloy bracelet, which is an ornament most often found with teenagers and younger women. In another young person's grave (assumed from the grave size), Central cemetery grave C1521, there was a smaller string of 28 Group 3 beads towards one end of the grave, and a lightweight form of annular brooch towards the middle, perhaps substituting for a belt buckle. Although the Style V necklaces at Saltwood were mostly made of small green and yellow beads, at Dover Buckland (1994) they were predominantly red glass and amber, and in Central cemetery grave C1210 a close dense cluster of 17 red glass and amber beads (Hirst Group 4) with a further bracelet, in the burial of an 8-18-year-old, probably represents another youthful version of Style V.

### *Dress Style VI*

In Style VI the ostentatious necklaces of Style V gave way to valuable pendant necklaces in high-status burials and a single string of a few significant beads in less well furnished graves. Brooches are by this time rare apart from an occasional example of a plated or composite disc brooch, but short pins on the chest are relatively common. Buckles mostly disappear and in their place are woven girdles, which are worn with garments of linen tabby and wool diamond twill. The style of garment these represent is not clear from the burial record, although a sleeved full-length wool tunic fastened with a woven girdle, over a linen chemise, would fit the evidence at present available and would allow for Mediterranean clothing styles arriving with the pendant necklaces. The 6th-century women of Theodora's court depicted in a mosaic at the church of San Vitale, Ravenna, for example, wore long-sleeved full-length gowns and fringed girdles with their pendant necklaces, combined with a capacious shawl. Sleeved tunic-dresses over long-sleeved inner dresses also appear in the early 9th-century Stuttgart Psalter, sometimes combined with mantles (Martin 1997, 351). Style VI is allocated broadly to the 7th century, Dover Buckland (1994) Phases 3b-7 and Saltwood phases 4-6, although many of the pendant necklaces belong in the latter half of the century.

At Saltwood, the two pendant necklaces from Central cemetery grave C6421 and Western cemetery grave C4699 place these burials in Dress Style VI. In grave C6421, which is a coffined burial, the bones were poorly preserved, and the body could be either teenaged or adult, but there is an emphatic display of wealth in the plated disc brooch in the region of the chest. The disc brooch clasps the rolled edge of a fine linen tabby, which may be the same as that seen on a detached fragment, where the edge of the material has been rolled over a cord, and some loose

cords on the back of the brooch may be remnants of the same strengthening device. These ostentatious brooches are rare in the Mediterranean world and are probably a northern addition to the Byzantine fashion. The Stuttgart Psalter illustrations show ornate disc brooches clasping a mantle which sometimes passes over the head, although these mantles have the drape of heavier fabrics than the linen found here. It is possible that in the Saltwood grave the disc brooch fastened a linen dress, as the earlier keystone brooches almost certainly did.

In grave C4699 the pendant necklace was probably placed on the chest rather than worn (see *Pendant necklaces*), which reflects an increasing tendency in the 7th century to put accessories on or beside the body. The only textile in this grave was another fine piece, possibly twill-woven, on the knife with the keys in the region of the left hip. Similar lightweight fabrics, often with a narrow tablet-woven border running across the keys, were interpreted at Dover Buckland (1994) as part of a long head veil reaching to the hip.

Less demonstrative necklaces with a small number of medium and large beads dateable to the later 7th century (Hirst Group 5) have been identified in Central cemetery graves C1110, W1279, C2401, W3080, W3083 and C6524 and Western cemetery grave C4502, and silver wire rings, a relatively common feature of 7th-century burials (Geake 1997, 48-9; Penn 2000, 50), were incorporated into the necklaces in Central (East) graves W1279 and W3080. In grave W1279 there was also a short pin on the chest, although there were no textiles preserved to demonstrate its function. In Western grave C4692 there were eleven beads (Group 5) arranged in a dislocated line down the side of the body from shoulder to hip. This has parallels at Dover Upper Buckland grave 60 (phase 3), where it was suggested that the beads were stitched to a garment (Evison 1987, 68-9).

A few other graves may arguably belong in the same group. In Central C6516 there was a short pin on the chest in a grave with no buckle, but also no beads: a fine tabby repp on the pin may represent the fastening on a head veil or shawl, although a coarse-fibred tabby weave in folds over the keys in C6524 is less easy to interpret. In Central C6520, a fine 'veil weave' on some keys is similar to an example identified as a sash in a Style VI grave at Dover Buckland (1994) (see above). A less certain member of the group is to be found in Eastern grave W1634 in which an adult was buried with seven beads under the head, no buckle, while the iron latch-lifters by the knee retained folds of a medium-fine textile. Although this has some correspondence with Style VI, the beads, dated to the late 6th and first half of the 7th century (Hirst this volume), include smaller forms than is usual at this date and the position under the head is strange.

No buckles were recorded in any of these graves, but the large buckle in Central cemetery grave C1261, thought to be 7th-century and Langobard-Byzantine in origin (Marzinzik this

volume), belongs to the same general period. There were no surviving bones in this grave and there may have been a second body represented by a second bunch of keys, but the line of the main body seems to run from a string of amber beads, presumably around the neck, through a short pin in the region of the chest, to the buckle at the waist, and the knife and keys probably at the thigh. On the back of the buckle there is linen tablet weave which runs vertically down the body; and there are also folds of linen repp, although their relationship to the tablet weave is unclear. A felted, probably soft-finished and therefore valuable, fabric runs over the front of the buckle. A coarse wool tabby weave on the keys may represent a blanket or cover, but the function of two further tabby weaves, one of linen, on the keys and knife is unclear.

The tablet weave on the buckle is of particular interest because it suggests a front opening inner garment fastened by the belt. Such a garment is not easily identified in the 7th-century world, since the Frankish coat had disappeared by this time, but some distant relatives may be described. A long front-opening coat was worn in Iran at the turn of the 6th/7th century (Vogelsang-Eastwood 2004, 72-3); a tailored long-sleeved dress with a front slit reaching to below the waist was recovered from the 7th- to 9th-century burial ground at Moščevaja Balka on the trade route through the Northern Caucasus (Ierusalimskaja and Borkopp 1996, 28-29); and a long-sleeved, full-length front-opening gown, belted or girdled and worn over a pleated dress, appears in an 8th-century diptych from Genoels-Elderen, Belgium (Webster and Backhouse 1991, 180-3). Whether any of these is relevant to the Saltwood burial, however, is unclear.

### **Costume in men's graves**

The man aged 40-60 years buried in Central cemetery grave C6101 (Phase 5-6) had a pair of metal lace tags, one on either foot, which probably represents the fastening for shoes or gartering. The single iron pin by the knife at the waist in Central cemetery grave C1267 (Phase 4), however, can be dismissed as a garment fastener. At Dover Buckland (1994) the iron pins in men's graves and the secondary pins in women's graves accompanied the knife, no matter where it was situated on the body, and it seems likely that their function was connected with the knife rather than the clothing (Walton Rogers forthcoming).

Apart from these, the only garment fastener in male-gender burials is the buckle at the waist. There was a single buckle in this position in 14 graves with male accessories in the Central cemetery (of which two are juveniles), one in the Eastern and six in the Western, and they were spread through all the phases of the site. In addition, there were three buckles in Central cemetery grave C1048, of which two were associated with the shields and probably represent carrying



straps. In grave C1159 there were two buckles at the waist, but the grave had been cut into by another and the finds disturbed. Remains of a skin or leather belt had been preserved in three male graves. In C1081 *ON 1451* (Phase 3b-4) it was made of well-preserved leather, 3-4 mm thick, and although the belt plate was only 12 mm wide, the strap where it entered the buckle loop was 20 mm wide, with chamfered edges, and had been folded so that it would pass through the loop. The strap in the large buckle Central cemetery grave C1132 (Phase 3b-4) is 26 mm wide and that in Western grave C4707 (Phase 4) begins over 22 mm wide but tapers before it enters the buckle loop, *ON 2171*. Belts tapering at one or both ends have previously been recorded in Merovingian graves and a tapered tongue was suggested for a belt at Bidford, Warwickshire, grave 9 (Marzinzik 2003, 60, 310). In the tiny buckle in the region of the waist of the child in Central cemetery C1214 the strap was certainly woven, although its weave not clear, and a woven linen strap was recorded in a small copper-alloy buckle from Central (East) W1291, the grave of an adult, possibly a woman, the position of the buckle not recorded. Woven straps are very rare in buckled belts and more often found in the buckles and strap-ends on purses.

The standard Anglo-Saxon male costume can be reconstructed as a knee-length long-sleeved tunic over a pair of close-fitting trousers (Walton Rogers in press). In the few cases where the layering of clothing has been reconstructed from the burial evidence, the belt almost certainly fastens the tunic, although belted trousers were worn by Germanic men on the Continent in the Roman Iron Age and may well have been taken up in England (*ibid.*). The textiles on the backs of buckles at Saltwood include a particularly fine tabby weave in a sword grave, Eastern W1767 (Phase 2), and a range of medium-weight tabbies and twills in Central cemetery graves C1189, C1195, C1240, C1240 and C1286 (Phases 3b-4). In Central C1132 there were two layers on the back of the wire-inlaid buckle *ON 900* (Marzinzik this volume), a medium-weight linen inside a fine wool ZS diamond twill, and a coarser wool twill passed over the front. It is likely that these represent a linen shirt or trousers inside a fine wool tunic fastened by the belt, with a cloak or blanket on top. The Z-spun system of ZS diamond twills usually proves to be the warp and in this instance the warp ran down the body, which contrasts with women's garments which are often cut across the fabric (indicating a loom width equivalent to the distance from shoulder to hem).

Other textiles touching weapons and knives may come from clothing, or furnishings for the grave such as blankets and covers. In Central cemetery grave C1145 (Phase 3b), for example, the medium-weight wool diamond twill with a tablet-woven border, probably a closing border, ran diagonally across the lower end of the sword. It lay close to the left hip and most probably represents the edge of a cloak. There was a similar fabric in Central grave C6673 (Phase 4-5) in a loose fold on the socket of a spear, where the cloak may have rucked up above the shoulder, and

another on the front of the buckle in Central C1267 (Phase 4). The coarse and unevenly woven tabby on the spear socket in the latter grave, however, is more likely to represent a household cloth used as a spear wrapper. Another medium-coarse textile, 8/Z x 8/S, on a spear ferrule by the man's foot in Western C3779 (Phase 3b-4a) is more likely to be a blanket and the finer textile with it may be a second cover on top: the use of double thickness grave linings, made up of blankets, coverlets and animal skins has been recorded in at least three graves at Snape, Suffolk (Filmer-Sankey and Pestell 2001, graves 36, 37 and 43). A combination of linen tabby, feathers and animal pelt on a spear to the right of the head in Western C4707 (Phase 4) may represent more bedding, although the pelt is from a small animal and has been tentatively identified as from a hood or cape. A spear-wrapper or grave lining is likely for the medium-coarse twill on the spear in Western C3944 (Phase 3) to the left of the man's head. Finally, an oddly positioned buckle to the left of the man's waist in Western C4688 (Phase 3) lay over wood which is almost certainly the shaft of the spear and there was a leather thong nearby and a medium-coarse textile on top: the meaning of this complex is unclear.

### **Children's costume**

Children's burials are few at Saltwood (Riddler and Trevarthen 2006), and where present they rarely include garment accessories or any information useful in the reconstruction of dress. Of 25 burials identified as children's, either from the osteology or from the small size of the grave, six had no grave goods or only a ceramic vessel. There were small numbers of beads in Central graves W1112, C1387, C2401, W1122 and Eastern W1462 and W1810, on 6-to-10 year-olds, but a full suite of garment accessories was only present in one of the small graves, C1216 (Phase 3b-4). In this last, a representative of Style V, the body had disappeared entirely and it is therefore not known whether it was a juvenile or an adult of limited growth, as encountered at Dover Buckland (1994) grave 204. On the whole, 6th-century Kentish girls did not seem to acquire a full range of clothing and jewellery until adulthood, although there are hints that this pattern changed in the 7th century in burials such as Dover Buckland (1994) grave 376 where a seven- or eight-year-old girl was buried with pin, necklace and sash.

Still less can be said of clothing for boys. The narrow woven strap attached to a tiny buckle in the grave of a 2-3-year-old furnished with a spear, Central cemetery grave 1214 (Phase 4), has been described above; and there is a medium coarse wool diamond twill on the socket of a spear buried with a 3-8-year-old, Central C2816. Apart from these two, textiles are as poorly represented in boys' as well as girls' graves.

## Notes for table of textiles and costume

### TEXTILES

Fibres were identified with a transmitted-light microscope fitted with a polarising analyser.

'Counts' are the numbers of threads per cm.

Z and S indicate the lie of the fibres in a yarn, when the yarn is held vertically: Z = / and S = \

Z2S indicates a two-ply yarn or cord, twisted in the S direction from two Z-spun yarns.

For weaves see Fig.20.

### COSTUME

The clothing has been described as if the person were alive and standing upright.

'Left' and 'right' indicate the body's left and right.

'Above' and 'below', mean worn higher or lower on the body.

'Inside' and 'outside' mean as worn, 'inside' being closer to the body.

The terms for living body parts – head, neck, breast, arm, waist, hip – replace strict osteological terms, except where they cause ambiguity.

'In region of' indicates the expected position of the object where the skeleton was wholly or partially absent.

### BURIAL

Sex derived from the skeleton is indicated by F for female and M for male.

Gender derived from accessories is indicated in brackets, (F) and (M).

J = juvenile/child.

The grave numbers used in the publication text appear in the top left box for each entry, but numbers from the original grave inventory are given in square brackets above each entry.

## Textiles and their use in costume: Central cemetery

Gr.	Sex	Age	Dress Fittings etc	Fibre	Weave	Count/Spin	Position of Textile	Interpretation
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### Phase 3b-4a [Grave 5]

1048	(M)	20-40	<i>With textile</i> 825 sword in scabbard 868 fe strap fitting 883 fe small buckle	not ident.	tabby repp (tape)	wa/40/Z x we/18/Z	Binding top of scabbard on sword 825: at least 26 circuits, 4 mm overlap, covering at least 110 mm from scabbard mouth. Simple selvedge	Scabbard bound with tape. Buckle 883 and strap fitting 868 appear to be associated with the shields, but buckle 876 at the waist was probably from a belt. Stitched leather pouch inside cu/a bowl.
Skel fragmentary			<i>Without textile</i> 876 fe buckle cu/a bowl, two shields and other miscellaneous weaponry	not ident.	?	medium-fine	Poorly preserved remains, two-thirds down scabbard 825, possibly next to body	
				not ident.	?	medium	Poorly preserved on strap fitting 868 with upper shield	
				not ident.	?	?	Poorly preserved on small buckle 883 with lower shield	

### Phase 4-6 [Grave 6]

1072	?		<i>With textile</i> 824 padlock ring	not ident.	?	14/? x 14/?	On and around padlock 824 at end of grave	
Body absent Disturbed grave								

Gr.	Sex	Age	Dress Fittings etc	Fibre	Weave	Count/Spin	Position of Textile	Interpretation
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*Phase 3b-4a [Grave 7]*

1081	M	30-50	<i>With textile and leather/skin</i> 1137 sword in scabbard 1451 small buckle	not ident.	tabby repp (tape)	wa/50/Z x we/16/?	Binding top of scabbard on sword 1137: covers about 70 mm from scabbard mouth	Scabbard bound with tape. Linen and wool clothing or covers.
Body supine, coffined			<i>Without textile</i> cu/a bowl, shield, bucket, misc. weapons, horse harness, knife	flax/hemp	tabby	20/?Z x 12/Z	On one face of scabbard 1137 at left waist/hip (over scabbard binding).	
				wool	?	coarse, Z x ?	On opposite face of scabbard 1137, on guard, at left waist.	
				?	?	?	Extensive folds of textile above and below scabbard and elsewhere in grave: no technical features could be determined.	
				leather/skin	strap		A strap 3-4 mm thick, 12 mm wide, with chamfered edges inside the plate of buckle 1451 (position in grave not recorded); the strap in the buckle loop is also thick, but 20 mm wide and folded in two to pass through the loop.	

*Phase 3b-4 [Grave 12]*

Phase 3b - 7 [Grave 12]							
1132	(M)						
Body absent							
		<i>With textile</i> 900 fe + cu/a large buckle	not ident.	tabby	16/Z x 12/?Z	On back of buckle 900 in region of waist. There is a second unidentified layer between this and the buckle.	Possibly a linen undertunic or shirt inside a fine wool diamond twill tunic, fastened by a wide leather belt. A cloak or cover of coarser material over the top.
		<i>Without textile</i> spear, knife region left waist and second knife in region of right calf	?wool	2/2 diam	16-20/Z x 16-20/S	At edge of buckle 900, probably running from back. S-spun system across buckle (therefore Z, probable warp, runs across body).	
		prob wool	2/2 or 2/1	coarser than 2/2 diam, Z x S	On front of buckle 900, outside leather/skin strap, which is 26 mm wide		

Gr.	Sex	Age	Dress Fittings etc	Fibre	Weave	Count/Spin	Position of Textile	Interpretation
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*Phase 3-6 [Grave 14]*

1137	(F)	20-30	With textile 898 fe keys and knife	wool	tabby repp	16/Z x 10/Z and 20-22/ Z	In flat layer on upper shanks of keys 898 in region of waist. Rib of weave runs across body. Similar but higher thread-count on opposite side of keys.	
skel fragmentary								
				?wool	tabby, open	12/Z x 10/Z	Irregular layer above tabby repp on one side of keys	
				not ident.	2/2	14/Z x 10/S	On keys on opposite face from open tabby.	
				leather/skin			On knife 898, with unidentified textile on top	

*Phase 5-6 [Grave 16]*

Phase 3-6 [Grave 15]							
1138	(F)	25-45					
body absent							
<div><div>With textile</div><div>1108 fe latch-lifters</div><div>1110 knife and cu/a buckle</div><div>1114 small ?buckle</div><div>1126 mount</div><div>Without textile</div><div>1113 beads region of chest</div><div>1115 cu/a pin frag region chest</div></div>			?wool	?2/2 matted	7/Z x 6/S and Z2S	On latch-lifters 1108 in region of left thigh. 5 rows plied yarn possibly represent woven border	The relatively coarse matted wool twill and the ?diamond twill probably represent blanket and/or cloak. Function of other textiles not clear. The wide expanse of beads probably runs from shoulders to waist.
			wool	2/2 ?diam	10/Z x 7/S	Flat layer on latch-lifters 1108, outside matted wool twill	
			flax/hemp	tabby	12/Z x 10/Z	Crumpled on one face of latch-lifters	
			wool	tabby with fringe	16/Z x 12/S S-plied fringe	On knife blade 1110 in region of waist	
			flax/hemp (prob flax)	tabby repp	26/Z x 16/Z	On back of buckle 1110 and in association with buckle 1114, both in region of waist	
			leather/skin	narrow strap		Binding together shanks of latch-lifters 1108	
			not ident.	tablet, patterned	16/S-ply x 14/Z	Detached, in association with mount 1126 outside region of left thigh	

Gr.	Sex	Age	Dress Fittings etc	Fibre	Weave	Count/Spin	Position of Textile	Interpretation
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*Phase 3b [Grave 15]*

1145	(M)		<i>With textile</i> 1091-3 sword 1096 fe buckle	wool	2/2 diam	12-14/Z x 8-10/S, with tablet border parallel to S-system	In loose folds in several areas over sword 1091-3 on left side of body. Border, possibly closing border, 5 cords/8 mm wide, twists SZZZS, diag- onally across lower blade by left hip.	Diamond twill a cloak or blanket. Tunic or trousers of medium-weight tabby on back of buckle.
Body survived as stain; coffined			<i>Without textile</i> 1097 knife crossways at groin area Spear, shield, bucket	not ident.	tabby	16/Z x 12/Z	On back of buckle 1096 at right waist, in vertical folds	

*Phase 3b-4 [Grave 18]*

1159	(M)	>13yrs	<i>With textile</i> 1236 separate mineralised textile	wool	?	?	In folded layers 1236 region of left hip	
Fragmentary skeleton			<i>Without textile</i> 1231 buckle right waist 1234 knife diagonal left waist 1236 buckle on diagonal left hip 1183 spearhead at left head	not ident.	tabby repp	16/Z x 12/Z	Interfolded with wool textile 1236	

*Phase 4-6 [Grave 20]*

1165	(F)	-	<i>With textile</i> 971/972/973 fe keys and rings	?wool	?2/2 diam	15/Z x 15/S	On both faces of key and ring 971/2/3 in region of left hip	From comparison with other sites, the diamond twill is an outer gown and the neat tucks from a hip-length veil.
Body mostly absent				not ident.	?tabby	?	Neat tucks, 2.5 tucks per cm, on ring of large key 971/2/3	
				not ident.	?	22/S-ply x 12-14/Z	Detached from 971/2/3. Possibly border of 2/2 diam in region of left hip	
				not ident.	? border	fine Z x Z	Detached from 971/2/3. Sandwiched between ?border and tabby	
				not ident.	tabby	11/Z x 10/Z	Detached from 971/2/3 in layers with ?border and fine Z x Z	

Gr.	Sex	Age	Dress Fittings etc	Fibre	Weave	Count/Spin	Position of Textile	Interpretation
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*Phase 4 [Grave 21]*

Phase 1 [Grave 21]								
1188	?F(F)	30-40	With textile 1138 fe keys 1139 fe buckle	?flax/hemp	tabby	16/Z x 14/Z	On shank and loop of key 1138 in region of left hip	Belt fastens garment of wool diamond twill, over which there is a tabby repp, possibly a cummerbund (see text). The ?linen tabby may be from a hip-length veil, or a bag for the keys
Part of skull only				wool	2/2 diam	18/Z x 14/S	On back stretching out beyond edge of buckle 1139 in region of left hip	
			Without textile 1136 knife above keys in region of left waist	not ident.	tabby repp	18/Z x 14/Z	On back of buckle 1139, between 2/2 diam and metal	
			not ident.	?	relatively coarse Z x ?Z	On back of buckle 1139 closer to body than 2/2 diam		

*Phase 3b-4 [Grave 26]*

1189	?F/(M)	18-25	<i>With textile</i> 1186 fe large buckle 1232 spearhead	?wool	twill, ?2/2	8/Z x 8/S	On blade of spearhead 1232 beneath shield in region of head	Spear probably wrapped for burial
Skel fragmentary, tentatively identified as woman, though finds are male-gender			<i>Without textile</i> 1233 knife in region of left waist shield	not ident.	2/1 or tabby	16/Z x 16/Z	Around socket of spearhead 1232 and on blade, outside coarser twill	
				not ident.	?tabby	Z x ?	On back of large buckle 1186 in region of waist in folds running down body	

*Phase 4 [Grave 31]*

1195	(M/J)	>2 yrs	<i>With textile</i> 1135 fe buckle	not ident.	?tabby	12/Z x 12/Z	In layers and folds on front and sides of buckle 1135 in region of waist	Belted tunic or trousers of diamond twill.
Skel fragmentary			<i>Without textile</i> 1133 spearhead in region right head 1134 knife in region left waist	?wool	2/2 diam	12/Z x 8/S	On back of buckle 1135	

*Phase 4 [Grave 29]*

1214	J (M)	2-3 yrs	<i>With textile</i> 1105 tiny cu/a buckle	not ident.	?	fine, ? x Z	Remains of woven band in plate of small buckle in region of waist	
fragments only			<i>Without textile</i> 1104 knife at left waist spear and bowl					



Gr.	Sex	Age	Dress Fittings etc	Fibre	Weave	Count/Spin	Position of Textile	Interpretation
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*Phase 3b-4 [Grave 38]*

1216	(F)	-	<i>With textile</i> 1164 latch-lifters	not ident	?	14/Z x ?	In folds running lengthways down latch-lifters (position on body unclear)	Beads, buckle and latch-lifters not in usual position.
Body absent			<i>Without textile</i> 1169 beads x 133					
			1166 buckle 1329 ceramic vessel					

*Phase 3b-6 [Grave 44]*

1240	?M	18-25	<i>With textile</i> 1230 fe small buckle and knife	not ident.	?2/2	medium, Z x ?	On ?back of buckle 1230b with knife	
Teeth only				leather			In association with textile	

*Phase 4b-5 [Grave 41]*

1261	(F)	-	<i>With textile</i> 1165 fe large buckle 1181 fe keys and knife	flax/hemp	tablet, 2-hole, staggered, SSSSSSZ Z	14/Z2S x ?	On back of buckle 1165 in region of centre waist, running vertically down body	
Body absent			<i>Without textile</i> 1167 pin	not ident.	tabby repp	16/Z x 10/Z	On back of buckle 1165 in folds running across line of belt	
			1170 beads	?wool	? felted	?	On front of buckle 1165	
			1168 second group keys	not ident.	tabby	10/Z x 10/Z	On upper face of keys 1181 and on knife in region of thigh	
				wool	tabby	5/Z x 5/Z	Under keys 1181	
				prob flax	tabby	18/Z x 14/Z	On knife 1181 in region of thigh	

Gr.	Sex	Age	Dress Fittings etc	Fibre	Weave	Count/Spin	Position of Textile	Interpretation
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*Phase 4 [Grave 30]*

1267	(M)	16-25	<i>With textile</i> 1129 spearhead	?wool	tabby	6/Z x 4/Z	Coarse uneven weave on socket of spearhead 1129 in region right shoulder	Spear probably wrapped. Pin probably a 'cutlery pin'
Skel fragmentary			1131 fe buckle	?wool	2/2 diam	14/Z x 12/S	On front of buckle 1131 in region of right waist	
			<i>Without textile</i> 1130 knife crossways region waist 1132 fe pin with knife					

*Phase 3b-4a [Grave 32]*

1286	(M)		<i>With textile</i> 1152 fe buckle	not ident.	?	medium, Z x S	On back of buckle 1152 in region of left waist	
Body absent			1161 spearhead	not ident.	ords	Z-ply, 1.0 mm	At edge of buckle 1152	
			<i>Without textile</i> knife beside buckle shield and complete pot	not ident.	?	12-16/? x 12-14/?	On socket and blade of spearhead 1161 (?in region of right calf?)	

*Phase 4 [Grave 34]*

1325	(M)		<i>With textile</i> 1191 fe buckle	not ident.	tabby	16/Z x 14/Z	On back of buckle 1191 at waist	
Fragmentary skeleton supine			<i>Without textile</i> large knife at right thigh, spear	?wool	?2/2	fine, Z x Z	On front of buckle 1191 at waist	

*Phase 4 [Grave 81]*

2816	J (M)	3-8 yrs	<i>With textile</i> 1698 spearhead	?wool	2/2 diam	10/Z x 10/S	In loose folds on socket of spearhead 1698 in region of left head	
Skel fragmentary			<i>Without textile</i> knife and ceramic jar					

*Phase 5-6 [Grave 171]*

6101	?M	40-60	<i>With textile</i> None	leather/skin			In association with square plates 2391 at left waist, in line with buckle at right waist.	
Supine			<i>Without textile</i> Buckle, knife, belt-plate, lace tags					

Gr.	Sex	Age	Dress Fittings etc	Fibre	Weave	Count/Spin	Position of Textile	Interpretation
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*Phase 4a* [Grave 190]

6421	(F)	>13yrs	<i>With textile</i> 2413 plated disc brooch	flax/hemp	tabby	26/Z x 18/Z	Looping over pin near catch on back of brooch 2413 in region of chest. Either a selvedge or rolled edge beside catch.	
Fragmentary, prob supine			<i>Without textile</i> 2412 coin pendant 2430 beads casket and bucket	prob flax	cords	Z2Z and Z2S, <1.0 mm diam	Three cords, differently plied detached from brooch 2413	
				prob flax	tabby	fine, Z x Z	Detached from brooch 2413, possibly same as flax/hemp tabby. Includes a worked edge, where the textile has been rolled over a cord.	

*Phase 4b-6* [Grave 185]

6516	(F)	35-50	<i>With textile</i> 2506 fe small pin	not ident.	tabby repp	24/Z x 14/?S	All around pin 2506 at throat	
Supine			<i>Without textile</i> ?finger ring by head					

*Phase 4a-6* [Grave 191]

6520	(F)		<i>With textile</i> 2514 fe keys	not ident.	tabby open	fine, 12/Z x 8/Z	On keys 2514, towards one end of grave	Fine open weave suggests veil, scarf or sash
Body absent			<i>Without textile</i> none					

*Phase 5-6* [Grave 177]

6524	(F)	25-35	<i>With textile</i> 2488 fe keys <i>Without textile</i> knife	coarse fibre	tabby	12/Z x 12/Z	In folds over keys 2488 at left hip	
Skel fragmentary, supine								

Gr.	Sex	Age	Dress Fittings etc	Fibre	Weave	Count/Spin	Position of Textile	Interpretation
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*Phase 5-6 [Grave 188]*

Phase 3 - Grave 100								
6630	(F)	-	With textile 2512 fe+cu/a complex	not ident.	tabby repp	26-28/Z x 12/Z	On fe connecting rod in complex 2512 in region of waist. Dominant system runs down object (across the body)	
Body absent								
			Without textile None	?wool	tabby	fine, Z x Z	On another fe rod in complex 2512	
				?wool	2/2 ?diam	14/Z x 10/S	On shank of key in 2512 and possibly outside tabby repp on connecting rod	
				not ident.	fringe	S-plyed Zs	Associated with diamond twill on 2512	

*Phase 4-5 [Grave 205]*

6673	(M)	-	<i>With textile</i> 2661 spearhead	wool	2/2 diam	12/Z x 10/S	Loose fold on socket spearhead 2661 to left of head	The wool diamond twill may be a blanket or cloak. The pelt is from a small mammal of the rabbit/hare/squirrel type. It may be from a hat, hood or shoulder cape
frags only			<i>Without textile</i> 266 buckle at waist large knife	fur			In association with diamond twill on socket of spearhead 2661	

## Textiles and their use in costume: Cemetery East of Trackway

Gr.	Sex	Age	Dress Fittings etc	Fibre	Weave	Count/Spin	Position of Textile	Interpretation
Phase 4-6 [W17]								
1122	J	4-6yrs	With textile 11 fe keys	?flax/hemp	tabby	wa/12/Z x we/8/Z	On one face of keys 11 (position not recorded), topmost of four layers of textile; selvedge c.7 mm wide.	
Body absent			Without textile two glass beads	not ident.	?	18/Z x 18/Z	On both sides of keys 11 in several layers.	
Phase 5-6 [W18]								
1124	?M	25-45	With textile 391 fe key	not ident.	2/2	16/Z x 14/Z	Along one face of rod 391	
Skel fragmentary				not ident.	cords	Z2S, 1.0 mm	Diagonally across rod 391, ?fringe	
				not ident.	?	medium-coarse, matted	On lower end of rod 391	
Phase 4-6 [W83]								
1291	?F	30-45	With textile 30 small cu/a buckle	?plant fibre	?	12/? x ?	Remains of textile strap on small cu/a buckle 30 (position not recorded)	
Body absent			Without textile knife					

## Eastern Cemetery

Gr.	Sex	Age	Dress Fittings etc	Fibre	Weave	Count/Spin	Position of Textile	Interpretation
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### Phase 2 [W60]

1453	(F)	25-35	<i>With textile</i> 43 bow brooch 78 bow brooch 44 cu/a buckle 46 knife 105 quatrefoil brooch 119 quatrefoil brooch  <i>Without textile</i> extensive beads 2nd knife	(?wool)	2/2 diam	20/Z x 20/S	On back of bow brooch 43, crossways in region of waist, possibly with tablet border running across line of pin.
Fragmentary skel				flax/hemp, partially processed	threads	2 Zs, 0.8 mm diameter	On back of bow brooch 78, crossways in region of waist. Threads tied to wire spring.
				coarse flax/hemp	tabby repp	18/Z x 10/Z	On knife 46 at left waist, outside leather/skin sheath
				?wool	?tabby	medium coarse, ? x S	On front of buckle 44 in region of centre hips
				prob flax	?	fine	Pierced by pin of quatrefoil brooch 105 in region of neck, and on pin of its pair 119 lower down chest.
				probably flax	threads	4 or 5 x Zs	Knotted in three half hitches around spring of quatrefoil brooch 105 and traces similar on it pair 119
				not ident.	cords	4 or 5 x S-ply	Behind threads on brooch 119 on chest

### Phase 3 [W57]

1634	?F(F)	18-25	<i>With textile</i> 318 fe latch-lifters	not ident.	?	14-16/Z x 14-16/?S	In thick folds on and around latch-lifters 318 by left knee	
Fragmentary skel			<i>Without textile</i> 264-6 beads knife, ?box fittings					

Gr.	Sex	Age	Dress Fittings etc	Fibre	Weave	Count/Spin	Position of Textile	Interpretation
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*Phase 2 [W40]*

1762	(F)	25-40	<i>With textile</i> 302 square-headed brooch	coarse flax/hemp	wa-faced band	wa40/S-ply x 12(?prs)/S-ply	Skewed across line of pin of brooch 302 at left waist: prob tablet-woven	
Fragmentary			<i>Without textile</i> 296 square-headed at upper waist 327 bird brooch 301 silver disc brooch 303 buckle left waist beads, knife					

*Phase 2 [W41]*

1767	(M)	20-30	<i>With textile</i> 304 cu/a buckle	not ident.	tabby	20/? x 20/?	On back of buckle 304 in region of left waist	
Fragmentary skel			<i>Without textile</i> spear, sword, shield					

## Textiles and their use in costume: Western cemetery

Gr.	Sex	Age	Dress Fittings etc	Fibre	Weave	Count/Spin	Position of Textile	Interpretation
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### Phase 3b-6 [Grave 102]

3041	(F)	13-18	With textile 1848 fe keys and chain 1849 fe key/latch-lifter complex	not ident.	tabby	medium-coarse, Z x ?	In close folds on keys and chain 1848 at one end of the grave	
Fragmentary skel				?wool	?	medium, Z x S	On all objects of the key/latch-lifter complex 1849 at same end of grave	

### Phase 3 [Grave 112]

Phase 3 (Grave 112)								
3741	(F)	15-25	With textile 1966 gold thread Without textile 1967 buckle	gold strip	brocading thread	0.8-1.2 mm wide	Some areas of brocading, others appear to be loose strip, probably at back of head	Possibly a hair ornament
Teeth; only one end of grave recovered								

### Phase 3 [Grave 113]

3747	(F)	20-30	<i>With textile</i> 1977 square-headed brooch 1978 square-headed brooch 1987 Kentish disc brooch  <i>Without textile</i> 1986, 2023 amber beads	?wool	matted	?	On back of brooch 1977 in region of waist, around pin hinge	
				not ident.	tabby repp	20/Z x 16/Z	Detached from brooch 1977 at waist	
<i>Late Style IV</i>				not ident.	cord	?	On back of brooch 1987 in region of throat, around pin catch	
				not ident.	?cords	?	Possible cords around pin catch of brooch 1978 in region of pelvis	

### Phase 2-6 [Grave 119]

3757	?M	14-18	With textile 1992 fe buckle Without textile lozenge and knife	not ident.	?	medium, Z x ?	On front of buckle 1992	



Gr.	Sex	Age	Dress Fittings etc	Fibre	Weave	Count/Spin	Position of Textile	Interpretation
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*Phase 3 [Grave 117]*

3762	(F)	18-25	<i>With textile</i> 2007 radiate-headed brooch 2016 cu/a buckle 2018 fe shears 2048 fe weaving batten 2053 Kentish disc brooch  <i>Without textile</i> 2214 etc, glass and amber beads probably running from neck to lower chest 2085 cu/a mount and 2100 quartz crystal ball in region of left hip 2015 and 2087 ag wire and disc in region of right knee Box and contents at feet	flax/hemp	? tabby ?repp	16-20/Z x 12-14/Z	On back of crossways brooch 2007 in region of waist and on front. On one face of weaving batten to right of waist.	Based on comparable graves at other sites it seems likely that the warp-faced band running vertically across the foot of the radiate-headed brooch at the waist probably formed the front opening on the ZZ garment that the brooch fastened: in which case it has rucked up on to the front of the brooch. The relatively coarse tabby repp is likely to be a cummerbund or coarse inner garment fastened by the belt. The wool diamond twill on the weaving batten represents an outer garment, a jacket or cloak. The cords on the brooch at the neck may be loop-fasteners for the fine inner dress clasped by the brooch, or bead strings.
body absent				not ident.	?	14-16/Z x 14-16/Z	Pierced by pin of crossways brooch 2007 in region of waist.	
<i>Late Style IV</i>				not ident.	tabby repp	?/Z x 8/Z	On back of buckle 2016 in region of waist	
				not ident	warp-faced ?tablet band	28/Z x 16/?	On front of brooch 2007, running across foot (i.e. vertically down body)	
				wool	2/2 diam	14/Z x 12/S	At edge of weaving batten in region of right waist, outside tabby repp. Large pattern repeat	
				not ident.	cords	Z2S, 0.8 mm diam	Several cords, in pin catch, along pin, and looping over brooch rim, on Kentish disc brooch 2053 (position in grave not recorded)	
				?	?	?	Traces of textile worn inside cords (closer to body) on back of Kentish disc brooch 2053	
				not ident.	?	coarse, S or S-ply in one system	Traces coarse textile on shears 2018 above head	
				not ident.	?	?	Fine textile on shears 2018	

*Phase 3b-4a [Grave 121]*

3779	?M	20-30	<i>With textile</i> 2004 spear ferrule  <i>Without textile</i> Sword, spearhead	?wool	?	8/Z x 8/S	On spear ferrule 2004 in region of left foot	
Skel fragmentary, supine								
				not ident.	?	16/Z x ?	Outside ZS textile on ferrule 2004	

Gr.	Sex	Age	Dress Fittings etc	Fibre	Weave	Count/Spin	Position of Textile	Interpretation
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*Phase 3-6 [Grave 123]*

3824	?F	45-100	<i>With textile</i> 2021 fe small buckle	not ident.	tabby	10/Z x 10/Z	On back of small buckle 2021 at waist	
Fragmentary, supine			<i>Without textile</i> 2020 knife					

*Phase 3 [Grave 127]*

3944	(M)	>18yrs	<i>With textile</i> 2065 spearhead	not ident.	2/2	9/Z x 7/Z	Detached from spearhead 2065, in region of left head	
Fragmentary skel			<i>Without textile</i> sword, shield, knife					

*Phase 4 [Grave 138]*

4597	(?F)		<i>With textile</i> 2135 & 2139 fragments of fe pin	not ident.	?	12/Z x ?	Pierced by pin 2135/2139 on chest (pin fragments disturbed)	
			<i>Without textile</i> 2136/37/38/40 knife and miscellaneous fe objects on chest and at left hip					

*Phase 2 [Grave 141]*

4643	(F)(J)	-	<i>With textile</i> 2133 ag square-headed brooch	flax/hemp	?	26/Z x 16/Z	Pierced by pin of brooch 2133, possibly in region of lower waist	
Small grave cut			2350 fe small key	not ident.	tabby repp	16/Z x 7/?	On one face of key 2350 (position in grave not recorded)	
			<i>Without textile</i> 2165 knife, ? left upper arm 2167 button brooch immediately above square-headed					

Gr.	Sex	Age	Dress Fittings etc	Fibre	Weave	Count/Spin	Position of Textile	Interpretation
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*Phase 4-5 [Grave 151]*

Phase 15 (Grave 15)								
4677	?M(F)	20-30	With textile	not ident.	?	?	Poorly preserved wrapper around keys	
Fragmentary skel			2158 keys				2158 and knife 2159 in region of waist	
			2159 knife	not ident.	?	medium-fine, Z x ?	On front of small buckle 2178 in region of hips	
			2178 fe buckle					
			Without textile					
			2162 second set keys + buckle					

*Phase 2-3 [Grave 152]*

4684	(?F)	-	<i>With textile</i> 2163 fe pin	not.ident.	?	?	Twisting round shank of pin 2163, but no details could be recorded	
Body absent								

*Phase 3 [Grave 154]*

4688	(M)	30-45	<i>With textile</i> 2221 fe+cu/a buckle	not ident.	?	10/Z x 8/S	On one face of buckle 2221 in region of left waist. Wood on back may be from spear shaft. Leather/skin thong present.	
Fragmentary skel			<i>Without textile</i> spear and knife					

*Phase 1b-2 [Grave 155]*

4692	(F)	-	<i>With textile</i> 2170 cu/a buckle	coarse flax/hemp	tabby	18/Z x 12/Z	On back of cu/a buckle 2170 in region of waist	
body absent			<i>Without textile</i> beads, knife, tweezers					

*Phase 5-6 [Grave 156]*

4699	?M(F)	20-30	<i>With textile</i> 2157 key complex + knife	not ident.	?2/2	fine, Z x Z	On knife in key complex 2157	

Phase 4 [Grave 157]

4707	(M)	-	With textile 2148 spear	plant fibre	tabby	16/Z x 8/Z	Along spearhead 2148, to right of head	
Body absent				animal pelt		coarse	On socket outside textile on 2148; feather in association	
			Without textile buckle, knife	leather	strap	>22 mm	Belt strap curved to fit buckle loop 2171 in region of waist	

Phase 4-5 [Grave 172]

Phase 1-5 [Grave 1-2]								
6202	(F)		With textile 2403 fe keys  Without textile Long knife and buckle plate	not ident.	?2/2	14/Z x 12-14/S	On and around keys 2403 region left thigh	
				not ident.	?tabby	fine, Z x ?S	Detached from keys 2403	

Phase 4 [Grave 173]

Phase 1 (Start 175)								
6206	(M)	17-20	With textile 2400 very small buckle Without textile Spear, knife	not ident.	tabby	medium-fine	Imprint on front of buckle 2400 at left waist	
Body absent								

Phase 3b [Grave 174]

6231	(M)		With textile 2404 fe buckle Without textile 2401 fe ring outside left waist spear	not ident.	?	medium	On back of buckle 2404 at waist	
				not.ident.	?	fine	On front of buckle 2404 at waist	