

ANCIENT MONUMENTS LABORATORY

REPORT

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TITLE	Spong Hill, Norfolk. The textiles	

The Textiles

Elisabeth Crowfoot and Julie Jones

Fibres and spinning

The preservation of fibres in the Spong Hill cemetery was poor (Appendix , H.M.Appleyard and Julie Jones). In six cases vegetable fibres were identified, one certainly flax, and possible animal fibres in five; although from the evidence of other cemeteries these were probably all sheep's wool, the fibres were too friable, and too heavily obscured by mineral deposits for more definite identification. Samples from one grave (38), showing the spinning direction of the threads and a clear weave structure, were found to be completely replaced by these deposits, as in an "earth replacement" noted at Sewerby, Yorkshire. In all the other textile fragments preserved the fibres had been replaced by metal oxides from the objects with which they had been in contact.

The spinning, in flax and in wool, is Z throughout, with only four exceptions, twills from Graves 24,39,57 and 58, where it is Z in one system, S in the other. No selvages are preserved on these fabrics, but in Anglo-Saxon twills with mixed spinning the Z-spun yarn is normally the warp.

Weaves

The weaves are those generally found in Anglo-Saxon cemeteries, tabby (plain) weave, four-shed and three-shed twills, and tablet-weaves. Tabby weaves (fig.1.a) survive in ten graves. One of these (Grave 38.8) has been identified as flax, and most of the others, from their counts and the soft folds in which they are held, are probably also linen from headveils and shirts. Two possible exceptions, rather coarser oxidised remains, are more likely to be wool, from a woman's sleeve (Grave 5) and perhaps from a cloak (grave 58).

Twill weaves predominate, as in most other cemeteries. Many, as far as can be seen from such small fragments, were probably simple four-shed 2/2 constructions (fig.1.b), but in possibly six examples these have had either chevron (herringbone) reverses, or broken diamond (lozenge) patterns, though they vary in style and quality. This certainly applies to the two with mixed spinning, though both would have been woollen fabrics, perhaps, from their position on the brooches, cloaks. The coarse twill in Grave 39 is a loose weave, liable to pull diagonally, with only one reverse visible on the fragments that survive, which may well have been a simple wide chevron pattern (Cf, Bruce-Mitford 1975, SH 2,fig.327). In the

finer fabric from Grave 24(c) the pieces are too small and deteriorated for the pattern to be clear, though some reverses suggest a broken diamond.

Among the twills with **Z** spinning in warp and weft, the regular broken diamond from the Grave 40 shield grip could be of either fibre, but two others have been identified as probably flax. Replaced pieces from an annular brooch in Grave 12 show a close weave, with uneven spinning and a high, nearly even count, and chevron reverses (fig.2); in one area damaged threads suggest this may have included broken diamonds. The fragment on the pair to this brooch, identified as ?flax, has no reverses, but its similar position and appearance suggest both come from the same fabric, perhaps something like the flax twill with a "workbox" from Kempston, Bedford, where the diamonds have a large adjoining area of chevron twill. The replaced Grave 12 fragment shows a fragment of tubular selvedge (fig.3), a practical and hard-wearing type of side-edge which appears first in Europe in the Danish Bronze Age and later moss finds of c.400 A.D. (Hald 1950, 155-157), and later in a number of Anglo-Saxon cemeteries, on flax weaves at Wakerley, Northants, and Barrington and Haslingfield, Cambridge, on wool at Broomfield Barrow, Essex, Wakerley, and Sewerby, Yorkshire, and replaced at Bergh Apton and Fonaby (Crowfoot, E 1978, 106; Crowfoot, E 1981, 96). This type of selvedge appears also on the best preserved broken diamond twill (Grave 24 (a), fig.4), though with a wider tubular edge; the diamond pattern is identical with that in Grave 40, a large even version with the centre most commonly found in Anglo-Saxon twills (Bruce-Mitford 1975, SH 1, SH 9, SH 12, 445, 447; Crowfoot, E 1967, 21; Crowfoot, E 1969, 51; Crowfoot, E 1978, 104; Crowfoot, E 1981, 97; Crowfoot, G.M. 1951, 31). The remains of three or possibly four twills in Grave 24 are confusing - (c), with **Z/S** spinning, is clear on two of the brooches, (b) present only at waist-level, has noticeably coarser yarns than those in the other fragments; (a), again at the waist, and the fragments (d), on the brooches, both have variable counts and rather different appearances, but it is possible that all belong to the same flax twill.

One fragment of fine three-shed twill lies in folds on the knife from Grave 31, so that areas showing both sides of the weave, the 2/1 (warp face) and 1/2 (weft face) are clear (fig.1.c,d). The three-shed construction has been regarded as unsuited to the warp-weighted loom in use among the Anglo-Saxons (Hoffmann 1964, 251-253), and in Scandinavia it does not seem to appear till the Viking period. On the Continent however it has a much earlier history, with Iron Age finds (Hundt 1964, 180f;

Schlabow 1976,81). The first example in England comes from a Roman hoard of the 1st century A.D. from Corbridge (Wild 1970,101). But the distribution in the Anglo-Saxon period, with a variety of styles and qualities in flax and wool, seems to suggest local production rather than imported goods (Bruce-Mitford 1975,446,450; Crowfoot,E.1966,29; Crowfoot,E.1978,105; Crowfoot,E. 1981,97-8; Crowfoot,G.M.1952,190; Crowfoot,G.M. 1953.61, and unpublished) and this perhaps may imply the use of a two-beamed loom (Wild 1970,69ff.).

Tablet-weaves have been found in six graves. In one, Grave 42, this appears to be a border, made with four-hole tablets on a twill weave; the edge loops are missing, but its width may have been no larger than the four twists that survive. It was probably a side-border, since the threads appear to enter the twill weave uncrossed (Henshall 1959, 18-21,fig.8; Crowfoot,E.1967,38,fig.6).

The other tablet-weaves are patterned braids that would have been woven separately and then sewn as decoration on men's and women's upper garments. Two varieties of pattern technique have been found in Anglo-Saxon graves, and both are represented here. In four graves (31,38,45,46) the braids would have had a simple edge of four-hole twists, but the centre with an in-woven pattern of which the diagonal lines are occasionally clear, though all the Spong Hill examples are badly damaged. These designs would have been emphasised by the use of colours as can still be seen in some fragments, purple (or red) and blue, with yellow or white, from Fonaby (Crowfoot,E. 1981,98-9). Replaced examples clearly in the same technique have been recorded from Mucking, Portway East, Hampshire, and Bergh Apton (Crowfoot,E. 1978, Grave 37). The braid in the wrist-clasps from Grave 5 is very different, with four-hole twists lying in chevrons throughout, decorated with brocading or embroidery, the pattern weft seen in one area as a paired thread passing over and under the twists, and in others as a thread wrapping round two twists of the warp as in a soumak weave (fig.5). Possible brocaded patterns on tablet-weaves have been noted from Bergh Apton (Crowfoot,E.1978,106) and on a braid from a 6th century brooch from Bekesbourne, Kent.

Miscellaneous

On some objects replaced unwoven threads can be seen, parallel S-plyed threads on a cruciform brooch from Grave 22, that may possibly come from a fringe, and a fragment of 3-plait on an annular brooch from Grave 14. Other threads, going round the arms of the florid cruciform brooch in Grave 2 were probably used to fasten on the side pieces, as in the coarse vegetable, i.e. flax, plyed threads on a cruciform brooch at Wakerkey (Grave 74).

Costume

The arrangement of the brooches in women's burials, a smaller pair lying in front of the shoulders, and a large central brooch above or between them, is particularly clear in the plans of Graves 14, 22, 24, 26, 38 and 39. As with many Anglo-Saxon graves in eastern England, particularly those from Fostonby, Lincolnshire, and Sewerby, Yorkshire, this arrangement suggests a woman's costume with features in common with the Pannonian dress of the early centuries A.D. (Garbsch 1965, 11, pls. 1, 8, 13, 16.1) and perhaps that shown by Charlotte Blindheim as an interpretation of the Viking brooches and textile remains from Birka (Blindheim 1945, 143ff. fig. 3) - a long-sleeved underdress, and an overdress of more solid fabric, either with bands over the shoulders, or simply a rectangle of woollen cloth, folded and caught on the shoulders by the pair of smaller brooches. The large brooch would probably have fastened the cloak or blanket wrapped round the body, and a separate headcloth or veil is suggested by the tabby weaves, often in soft folds on the front of the brooches or tucked in behind them (see Graves 12, 14, 22, and 42). The tablet-weaves in six graves point to decorative details, that in Grave 31 perhaps a belt, those from the brooches of Graves 38, 42, 45 and 46 from braids decorating the neckline or top edge of the overdress, and that in the wrist-clasps of Grave 5 a braid cuff, a feature shown clearly on the underdress in the Pannonian reliefs, and clearly preserved in other Anglo-Saxon examples (Crowfoot, G.M. 1951, 27ff.; Crowfoot, G.M. 1953, 189ff.).

Spong Hill

Textile Catalogue

Note: The abbreviation "replaced" is used for "fibres replaced by metal oxides". The spinning direction of yarns is indicated by the letters Z and S, the probable warp thread being placed first. Overall measurements of best fragments are given in cms, and weave counts in threads per cm, except where otherwise stated.

Grave	Number	Object	Position	Fibre	Spin	Weave	Count	Measurement	Comments
2	1	florid cruci- form brooch	round arms of cross	replaced	Z, Sply	-	-	-	threads, ?fastening on side pieces
	2	small-long br.	back	replaced	Z/Z	2/2 twill	-	-	scraps, deteriorated
	3	annular brooch	back	replaced	Z/Z	2/2 twill	-	-	as above
	8	florid cruci- form brooch	pinhead	replaced	Z/Z	2/2 twill	16-18/14-16	5.0 X 3.5	even spinning, weaving
3	2	annular brooch	along pin	replaced	Z/Z	2/2 twill	c.8/4 on 5 mm	1.0 X 0.5	crushed patch weave, coarse-fibred threads lying above
5	6	small-long brooch, R	back front	(a) replaced deteriorated	Z/Z Z	2/2 twill -	9/8 -	5.3.0 X 4.0 -	small area clear, under ?skin scraps, fibres
	6a	small-long brooch, L	back	replaced	Z/Z	?twill	-	-	coarse, probably as on 6; ?skin
	6b	wrist clasps	detached back	(b) replaced (c) deteriorated	Z/Z Z/?Sply	tabby 4-hole tablet, brocaded	10/8 10 twists, 8 wefts	c.1.0 X 1.0 1.0 X 0.8	rather open weave twists in chevrons, Z,S, pattern brocaded (fig.5,p.3)
11	2	annular brooch	back	replaced	Z/Z	-	-	-	traces, weave not clear
12	2	annular brooch	front,back other side	(a) replaced	Z/Z	tabby	15/12	1.5 X 1.7	in five layers or folds
	6	annular brooch	of pin back,face	(b) bast ?flax (c,?b) replaced	Z/Z Z/Z	2/2 twill 2/2 chevron twill, tubular selv.	18/16 18/17	1.5 X 2.7 c.1.2 X 1.0	underneath weave (a) uneven spin, close weave, one very coarse thread; see pp.1,2; weave and selvedge, figs.2,3
13	3	?knife	under leather	replaced	Z	-	-	-	?lining or threads inside leather sheath
14	2	the ring	over most of	replaced	Z/Z	2/2 twill	15-16/12-14	0.8 X 1.4, 1.2 X 1.5	clearest areas, spinning and weaving even
	3	annular brooch	front,back	(a) replaced	Z/Z	2/2 twill	16/12-13	3.0 X 2.0, 2.5 X 2.0	folds both ends pin
			back	(b)replaced	Z	3-plait	4 threads per unit	L.1.7,w.0.7	lying across (a)
	4	annular brooch	back	(a) replaced	Z/Z	2/2 twill	16/14	-	folds as on three, scraps
	5	small-long br.	back	(c) replaced	Z/Z	tabby	12/10	c.2.2 X 1.8	folds in lump

Grave	Number	Object	Position	Fibre	Spin	Weave	Count	Measurement	Comments
18	3	Square-headed brooch	back (a)	replaced	Z/Z	tabby	-	-	tiny fragments, too small for count, (a) and (b)
			back (b)	replaced	Z/Z	2/2 twill	-	-	
	6	small-long brooch	back (?c)	replaced	Z/?	-	-	-	confused threads, one system not clear
19	2	Fe ring	lumps	replaced	Z/Z	2/2 twill	c.10/10	1.0 X 1.0	very solid spin, one system thicker than the other
22	3	cruciform brooch	front (a)	replaced	Z/Z	tabby	20/14	1.0 X 1.2	fragments lying side by side, ?from fringe
			in knob, (b)	replaced	Z, Sply	threads	-	-	
			and on pin front (c)	replaced	Z/Z	?twill	-	0.7 X 0.5	
	4	small cruciform brooch	under phone fragments (b)	replaced	Z/Z	2/2 twill	11/15 (C/)	-	scraps, coarser than (a)
	6	small cruciform brooch	on pin (c)	replaced	Z/Z	2/2 twill	16/15 (8/7-8 on 5 mm)	-	?fringe or string scrap
8	9b	Ae buckle latch lifter	on Fe pin (d)	replaced	Z/Z	2/2 twill	12/12 (6 on 5mm)	1.0 X 0.8	even spin, weave
			patches	replaced	Z/Z	?twill	-	-	
24	4a	girdle hanger	behind cross end (a)	replaced	Z/Z	2/2 broken diamond twill	c.14/14	c.2.5 X 2.2	in folds (see p.2, fig. 4)
	4c	Fe ring	one side (b)	replaced	Z/Z	2/2 twill	c.12/12	0.8 X 1.1	coarser threads, no sign of reverses
	4d	girdle hanger	on all bits (a)	replaced	Z/Z	2/2 broken diamond twill	18/16	c.4.0 X 4.0	in folds, hard to see reverses
	5	square headed brooch	behind pin head (a)	(b) replaced	Z/Z	2/2 twill	12/12	3.5 X 1.8	no reverses
			(c)	replaced	Z/S	2/2 broken diamond or	7/6-7	c.1.5 X 1.2	(Pl.) very even spin, weave, reverse.
	6	annular brooch	detached (c)	replaced	Z/S	chevron twill	-	-	tiny scrap, centre damaged
			back, pin (d)	replaced	Z/Z	2/2 twill	-	c.2.3 X 2.3	fields held by and below pin
			detached (d)	?flax, very deteriorated	Z/Z	2/2 twill	13-14/12	1.5 X 0.7	even spinning, weaving
	7	annular brooch	under pin (d)	replaced	Z/Z	2/2 twill,	-	c.1.4 X 1.3	traces, with fragments
			and detached	(d)	replaced	Z/Z	tubular selvage	?15-16 warps	L.1.8, 0.9
against front (d)			(c) replaced	Z/S	2/2 broken diamond or	c.16/16	c.2.5 X 1.0	two adjoining fragments, very deteriorated	
7	annular brooch	back, ring (d)	replaced	Z/Z	2/2 ?broken diamond twill	(estimate)	c.16/16	-	not (a); same quality as (c) but different spin and missing threads (see p.2)

Grave	Number	Object	Position	Fibre	Spin	Weave	Count	Measurement	Comments
26	4a	knife	near tip	(a) replaced	Z/Z	2/2 twill	12/12	1.2 X 1.0	even spin, weave; appearance suggests flax
	5	cruciform brooch pin hinge	(b) replaced		Z/Z	tabby	10/10	1.8 X 1.2	fine threads, open weave
	6	disc brooch (Roman)	pin hinge	?(a) replaced	Z/Z	twill	c.8(4 on 5mm)	-	deteriorated, fragments, with "skin" over
28	4	Fe buckle	both sides	replaced	Z/Z	?twill	-	-	coarse threads, deteriorated folds
29	1,2	annular brooches	detached	replaced	Z/Z	twill	-	-	small fragments, weave confused
	6	Fe fitting	one side	replaced	Z/Z	2/2 twill	12/10-11	1.1 X 2.0	coarse spin, rather uneven weave
31	8	near knife	detached (b)	replaced	-	?tablet weave	-	-	see 9 and 12
	9	dagger	under blade and tang under (a) and opposite edge near hilt	(a) replaced (b) replaced	Z/Z Z, S/Z, Sply	2/1 twill tablet 4-hole, patterned	c.18/16 (9/8 on 5mm) 9 twists, 8 wefts, per 5 mm	2.1 X 0.8 1.3 X 0.8, 0.6 X 0.8	other scraps; folded back on ?hilt to show 1/2 side of weave (fig. 1.c, d.) pattern with diagonal lines, area underneath twill
	12	Fe knife	one side (b)	replaced	Z, S/Z, Sply	tablet as above	c.18/11 (9 on 5mm)	c.1.2 X 1.0	very damaged, but Z and S twist and plyed wefts clear; folds ?fine textile lapping edge
32	2	Buckle	underneath, and fragments	replaced	Z/Z	2/1 twill	c.14/14 (7/7 on 5mm)	1.9 X 1.4 1.0 X 1.0	parts clear, uneven spinning, even weave
36	1	shield grip	detached scrap	replaced	Z/Z	2/2 twill	c.6/6 on 5mm	1.3 X 1.8	even spin and weave
	3	spearhead	along blade, and folding edge in one area	replaced replaced replaced	Z/Z Z	2/2 twill threads	16-18/12 12-14/12 -	1.2 X 1.5 1.0 X 3.0 1.3 X 1.3	one side; probably same weave threads closer packed in parts lying parallel, very few across ?torn edge
37	7	Fe and Ae scraps	?pin	replaced	Z/Z	2/2 twill	9/c.9	c.1.0 X 1.0	scraps in folds on most pieces, even spinning
38	1c	Ae buckle	underside	(a) replaced	Z/Z	2/2 twill	4/4 on 5 mm	c.7 X 7 mm	coarse yarns, threads against leather of belt
	2	Fe knife	on earth and inside sheath	(a) ?replaced	Z/Z	2/2 twill	9/c.8 (on 5 mm) c.10/10	0.9 X 0.5 1.8 X 0.7	fibres (p. 10) coarse, fragment mixed with grass
	4b	Fe rings	patches	(a) replaced	Z/Z	2/2 twill	c.10/10	-	very similar to above
	7	square headed brooch	front round bow, catch	(b) replaced replaced	Z/Z Z	tabby threads	14/12-14 (est.) -	1.8 X 0.7 -	mass small folds, soft, gathered by pin coarse, round bow under (b)

Grave	Number	Object	Position	Fibre	Spin	Weave	Count	Measurement	Comments
(38)	8	annular brooch	detached (b)	flax	Z/Z	tabby	14/14, 16/13	0.7 X 0.5	uneven spin
			detached (c)	replaced	Z/Z	2/2 twill	est. 14/14	0.4 X 0.5	even spin and weave
			back, pierced (d)	replaced	Z/Z, Sply	tablet	10 twists	1.6 wide	broken twist at edge; twists edge
			by pin, under			weave, 4-hole,			SZSZ, centre diagonal pattern
			fragments (b)			diagonal			(p. 3) braid.
			under (d) (c)	replaced	Z/Z	2/2 twill	-	-	traces under braid
	9	annular brooch	detached	replaced	Z, Sply	thread	-	L. 1.0 cm	
39	1	annular brooch	back, pinhead & detached (a)	replaced	Z/S	2/2 chevron twill	9/9	c. 4.0 X 2.0	lump; weave loose, pulled; S yarn variable, some thicker
	2	annular brooch	detached (a)	replaced	Z/S	2/2 chevron twill	9/9-10	3.5 X 3.5	as above, some S threads damaged; reverse 2 cm from edge (p. 1)
	6	Fe buckle	on pin underneath (b)	replaced	Z/Z	2/2 twill	14/12	3.0 X 2.0	even spin, weave; folds
	7	annular brooch	under pin above (b)	(c) replaced	Z/Z	? tabby	c. 14/14	2.0 X 1.2	tight folds, appearance suggests flax
			(a) replaced	Z/S	2/2 twill	13-14/12	2.5 X 3.0	-	other confused scraps
									deteriorated traces
40	4	shield grip	on handle	replaced	Z/Z	2/2 broken diamond twill	12/12	3.5 X 2.3, 4.5 X 4.5	even spinning, weaving (fig. 4) larger area small scraps
42	5	small-long brooch	front (a)	replaced	Z/Z	2/2 twill	16/14	1.4 X 1.9	regular spin, weave
			back, and (b)	animal (wool)	Z/Z	tablet-weave 4-hole	4 twists (4 mm)	L.c. 1.1 cm	twists border SZSZ; on detached fragment, 4 mm of twill joining, i.e. starting or ending border on twill (a)
	6	small-long brooch	back, front, under wood (a)	animal	Z/Z	2/2 twill	15/14, 13/12	3.0 X 2.5 6.0 X 5.0	thick layer, deteriorated; c. 6 layers or folds
			against bow & on head (c)	deteriorated	Z/Z	tabby	c. 14/13 (est.)	-	tiny fragments, open weave
45	1	annular brooch	behind pin (a)	? animal	Z/Z, Sply	tablet-weave	-	1.5 X 0.6	very deteriorated area
			detached, from pin (b)	replaced	Z/Z	2/2 twill	c. 12/12	1.0 X 0.7	even spin; tablet twist on one side
	2	annular brooch	below pin (a)	replaced	Z/Z, Sply	tablet, 4-hole, diagonal	c. 18 twists, 10 wefts	c. 1.0 X 1.0	with break in middle; pattern diagonal (p. 3, 4), braid
	8	brooch	underneath and on soil (b)	replaced	Z/Z	2/2 twill	c. 12 X 12	1.7 X 1.7	not clear, fragments and traces, impressions on soil, broken thread
46	1	equal-armed brooch	pinhead, and on pin (a)	replaced	Z/Z, Sply	tablet-weave, 4-hole, diagonal	14 twists c. 10 wefts	1.4 X 1.3, 1.2 X 1.3	pattern weave broken down centre diagonal, damaged (p. 3, 4) braid
	2	equal-armed brooch	pin catch (a)	replaced	Z/Z, Sply	tablet	-	-	traces, as on 1

<u>Grave</u>	<u>Number</u>	<u>Object</u>	<u>Position</u>	<u>Fibre</u>	<u>Spin</u>	<u>Weave</u>	<u>Count</u>	<u>Measurement</u>	<u>Comments</u>
(46)	3	cruciform brooch (1,2,3)	detached	(a) replaced (b) replaced	Z/Z, Sply Z/Z	tablet-weave 2/2 twill	- 14-15/c.12 (6 on 5mm)	- 1.0 X 0.6, 0.6, X 0.6	damaged lumps hard even spin and weave, appearance suggests flax
49	2	shield grip	one piece	(a) replaced	Z/Z	2/2 twill	9/8(4 on 5mm)	c.1.1 X 1.5	coarse threads, weave rather open
			another	(b) replaced	Z/Z	2/2 twill	c.16/14	c.3.5 X 2.8	very close even spin, weave, unlikely to be part of (a)
	3	spearhead	tip and edge	(a) replaced	Z/Z	2/2 twill	10(est)/7-8	c.4.5 X 1.0	fragments, some detached
51	6	metal fragment		replaced	-	?twill	-	-	very deteriorated
57	7	cruciform brooch	from pin against back	?(a) replaced (a) animal	Z/S Z/S	2/2 twill 2/2 twill	- 14/12-14	- 2.5 X 1.5, 1.3 X 1.0, c.2.3 X 1.8	small fragments, pulled bias lying with leather; pulled to look almost like tablet weave layers jammed together; may possibly have reverses deteriorated weave?(p.10)
	9	annular brooch	against from pin	(a)(b) vegetable (c) replaced	Z Z/Z	- 2/2 twill	- 13/12(6	- 1.2 X 0.7	in folds as pinned
	10	annular brooch	detached	?(c) ?carbonised	Z/Z	twill	-on 5 mm)	-	lumps with very deteriorated fabric adhering
58	3	cruciform brooch	back, against metal	(a) animal	Z/Z	2/2 twill	est.c.16/16	1.3 X 1.0, 2.0 X 1.5	crushed fabric, slightly pulled diagonally
			on pin	(b) ?flax	Z/Z	2/2 twill	-	-	small areas, even, closer weave
	4a	?knife	blade	?(a) replaced	Z/Z	2/2 twill	est.c.12/12	1.5 X c.1.0	
	4b	ring	on metal	(c) replaced	Z/S	2/2 twill	c.10/8 (5/4 on 5mm)	1.3 X 0.7	coarse open weave; deteriorated fragments from this or (a)
				replaced	Z	threads	-	L.1.5 cm	coarse threads lying side by side, ?fringe
	6	annular brooch	soil around	(d) replaced	Z/Z	tabby	c.10/8 (5/4 on 5mm)	0.5 X 0.5	clearest area, even spin, weave

Appendix . Fibre Analysis

H.M.Appleyard, F.T.I., and Julie Jones

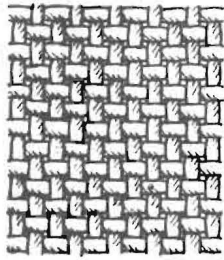
.. A sample from Grave 12.2 (twill) was examined after excavation by Julie Jones, and identified as a bast fibre, possibly flax. Samples from six later graves were analysed by H.M.

Appleyard, F.T.I., who reported as follows:-

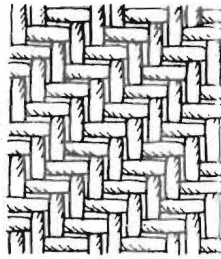
- Grave 24.6. Two samples examined from weave (a) were of vegetable fibre but in very poor condition, from what can be seen almost certainly flax.
- 24.7. Fibres in even worse condition, but again probably flax.
- Grave 38.2.(a) Two samples examined appear to be completely replaced by mineral deposits, no sign of fibres could be found.
- 38.8.(b) Vegetable fibre, with the narrow lumen and general appearance of flax.
- Grave 42.5.(b) (Tablet weave) This is animal fibre, but there is far too much degradation and too little evidence of scale structure to say more.
- 42.6.(a) (Twill) Fibres probably of animal origin, but specimen very brittle and a considerable amount of mineral deposit.
- Grave 45.1.(a) (Tablet weave) Sample very brittle and friable, with much deposits, fibres very bad, but fragments consistent with animal fibres.
- Grave 57.7.(a) (Twill) These are animal fibres, but their condition is such that it is not possible to say what type, though some are fairly coarse and medullated.
- 57.7.(b) (?Textile against a) In very bad state, deposits and some seeds, but almost certainly some vegetable fibre.
- Grave 58.3.(a) (Twill) A few very small fragments of badly degenerated animal fibres, and vegetable matter similar to some grasses.
- 58.3.(b) (Twill) Fibres again in very poor state, but looking like flax.

Bibliography

- Blindheim,C. 1945. "Vernesfunnene og kvinnedrakten i norden i Vikingtiden", Viking 1945. 143-162.
- Bruce-Mitford,R.1975. The Sutton Hoo Ship Burial. I.
- Crowfoot,E. 1966. 'The Textiles' in P.Hutchinson, "The Anglo-Saxon Cemetery at Little Eriswell,Suffolk", Proc. Cambridge Antiq.Soc. LIX,29-32.
- Crowfoot,E. 1967. 'The Textiles' in H.E.R.Davidson and L.Webster, "The Anglo-Saxon burial at Coombe, Kent", Medieval Archaeol.XI, 37-9.
- Crowfoot,E. 1969. 'Textiles' in P.J.Tester, "Excavations at Fordcroft, Orpington", Archaeol.Cantiana LXXXIV. 50-3.
- Crowfoot,E. 1978. 'VI. The Textiles' in Barbara Green and Andrew Rogerson, "The Anglo-Saxon Cemetery at Bergh Apton, Norfolk", E.Anglian Archaeol. 7, 98-106.
- Crowfoot,E. 1981. 'IV.The Textiles' in A.M.Cook, "The Anglo-Saxon Cemetery at Fonaby, Lincolnshire", Occ.Papers in Lincolnshire History and Archaeology 6. 89-101.
- Crowfoot,G.M. 1951. 'Textiles of the Saxon period in the Museum of Archaeology and Ethnology', Proc.Cambridge Antiq.Soc. XLIV, 26-32.
- Crowfoot,G.M. 1952. 'Anglo-Saxon tablet-weaving', Antiq.J.XXXII,189-90.
- Crowfoot,G.M. 1953. 'Textiles' in E.T.Leeds and H.Shortt, An Anglo-Saxon Cemetery at Petersfinger, near Salisbury, Wilts. 61.
- Garbsch,J. 1965. Die Norisch-Pannonische Frauentracht im 1.und 2. Jahrhundert.
- Hald,M. 1950. Olddanske Tekstiler
- Henshall,A.S. 1959. 'Textiles on the back of a brooch from Blewburton Hill, Berks', Berkshire Archaeol.J.LVII.17-21.
- Hoffmann,M. 1964. The Warp-weighted Loom, Studia Norvegica 14.
- Hundt,H.-J. 1964. 'Eine leinenwickelte Schwertscheide der Hallstattzeit', Mainfränkisches Jahrbuch für Geschichte und Kunst 15. 180-
- Schlabow,K. 1976. Textilfunde der Eisenzeit in Norddeutschland. Göttinger Schriften zur Vor- und Frühgeschichte 15.
- Wild,J.P. 1970. Textile Manufacture in the Northern Roman Provinces



1 a.



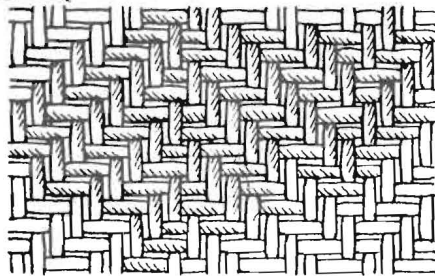
b.



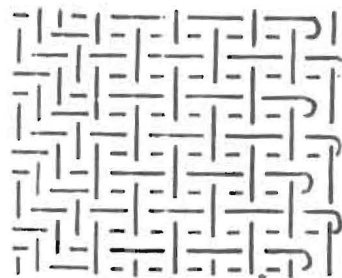
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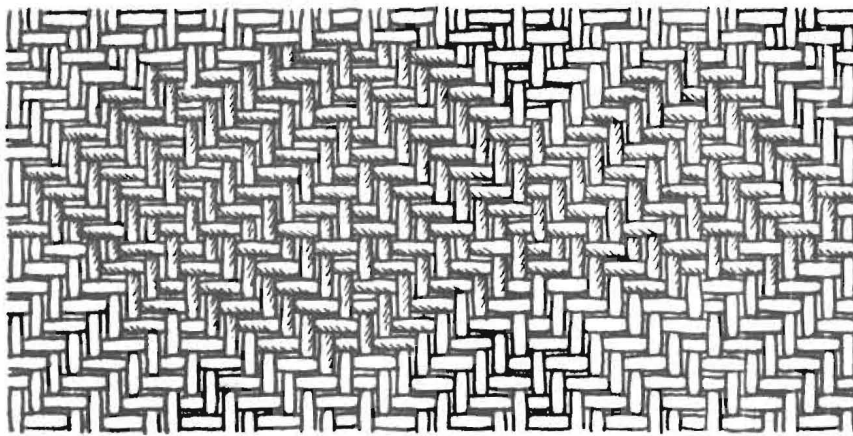
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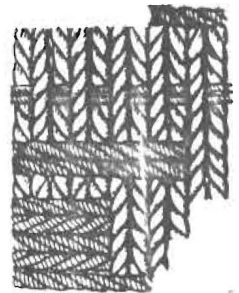
2.



3.



4.



5.

1. Weaves: a Tabby weave. b Four-shed 2/2 twill.
c Three-shed twill, 2/1 (warp face), d 1/2 (weft face).
2. 2/2 twill with chevron reverses. The shaded portion shows the area preserved in Grave 12.6 (p.2).
3. Diagram of tubular selvedge, the edge tube flattened to show passage of weft; on 7 warps, as in Grave 12.6.
4. Broken diamond twill, Graves 24 and 40. The shaded portion shows the best area preserved (Grave 24).
5. 4-hole tablet-weave, twists in chevrons, with brocaded pattern as in Grave 5.6 (p.3).