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Irish Viking Age silks and their place in Hiberno-Norse society

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The context: From the beginning of the ninth century AD people from Scandinavia, many from present-day Norway began to settle in Ireland. They founded the modern Irish cities and towns of Dublin, Waterford, Cork, Limerick and Wexford and developed lively and successful trading settlements that flourished until the Anglo-Norman invasion in 1169 AD. We know from the literature that the Irish prized and used silk cloth at that time but at present excavations have not disclosed any remains of silk in what can be identified as specifically vernacular contexts.[1] The situation is different for the Viking Age settlements. In particular Dublin and Waterford over the last twenty-five years or so have yielded up enormously rich organic remains including textiles that have illuminated in an amazing way the lifestyle of these incomers.[2] They were enthusiastic traders and their wealth was well known in Ireland. Probably slave-trading played a major role but there was also much commerce in silver, furs, perhaps foodstuffs, silk and other cloth. An Irish account of the sack of Viking Limerick by local people in The Wars of the Gaedhil with the Gaill contains this passage. 'They followed them also into the fort and slaughtered them…They carried off their jewels and their best property, and their saddles beautiful and foreign; their gold and silver; their beautifully woven cloth of all colors and of all kinds; their satins and silk cloth, pleasing and variegated, both scarlet and green, and all sorts of cloth in like manner. They carried away their soft, youthful bright, matchless girls; their blooming silk-clad young women; and their active, large and well-formed boys.….everyone that was fit for a slave was enslaved.'[3] It is interesting that

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[1] Jeffery Gantz, *Early Irish myths and sagas* (Harmondsworth: Penguin, 1983).
[2] Medieval Dublin Excavations 1962-81, Royal Irish Academy, Dublin: G.F.Mitchell, *Archaeolgy & Environment in Early Dublin* (1987); James T. Lang, *Viking-Age Decorated Wood* (1988)*;* Patrick Wallace, Andrew Halpin, Arne-Emil Christensen, Joseph McDonnell and Spencer Brian, *Miscellanea 1*; Patrick Wallace, *The Viking Age Buildings of Dublin*, vol. 1, parts 1 and 2 (1992); Sean McGrail, *Medieval Boat and Ship Timbers from Dublin* (1993). Thomas Fanning, *Viking Age Ringed Pins from Dublin* (1994). Geraghty, Siobhán, *Viking Dublin: Botanical Evidence from Fishamble Street* (1996). Patrick Wallace, "The archaeology of Viking Dublin" in *The comparative history of urban origins in non-Roman Europe*. ed. H. B. Clark and A. Simms (Oxford: BAR International 255, 1985) 103-45. Patrick Wallace, *The Viking Age buildings of Dublin*. (Dublin, National Museum of Ireland/Royal Irish Academy 1992). *Late Viking Age and Medieval Waterford, Excavations 1986-1992*, ed. M. Hurley, O. Scully with S. McCutcheon (Waterford: Waterford Corporation, 1997).
[3] J.H. Todd, (ed. and translated) *The Wars of the Gaedhil with the Gaill, or the Invasion of Ireland by the Danes and other Norsemen* (London:Rolls series, 1867), 51.

there are so many references in the passage to silks and beautifully woven cloth; they must have made a deep impression on the Irish fighters and chroniclers.

The material: Finds of silk from Dublin are far less numerous than those of wool; this is a pattern that is repeated in excavations in other Irish towns, and indeed in Europe generally at this time. There are however remains of compound weave cloth, of tablet woven braids, thread, ribbons, cords and filets.[4] Three types of plain silk cloth were found, some were made up into bands, scarves and caps.[5]

There are at least twenty-five fragments of weft-faced compound twill of 2/1 construction, with paired Z-twisted main warps, single Z-twisted binder warps and untwisted wefts. Many are made with red or natural color silk probably patterned, and survive in narrow strips that seemingly were used to trim other garments.
Four tablet woven braids use gold metal thread with a silk core as does one silver braid. A second silver braid does not seem to have a silk core but some of the brocading was executed in silk.
Silk thread to be used for sewing or embroidery was found; some in a small amount tied to a cylindrical needlecase. Other lengths were wound around thin pieces of wood or in small skeins. Thread was made up into plyed and plaited cords. At least seven knotted filets or hairnets were found. What may be the earliest example of sprang made from silk was found in Dublin in single S-twisted silk thread with alternate rows of 1/1 and 2/2 interlinking. This example of interlinked mesh sprang has a finished width of 130mm.

Bands, scarves and caps: The plain silk items, together with similar pieces in wool, all in tabby weave, make up very interesting, cohesive group of finds. For example, Viking literary sources record that headbands were worn by men as well as women. When Skarp-Hedin in Njal's Saga rides to the Althing 'his hair was well combed back and held in place by a silk headband. He looked every inch a warrior'. Earlier in the same saga Gunnar was given by King Harold Gormsson in Haithabu 'his own robes, a pair of gold embroidered gloves, a headband studded with gold and a Russian fur cap'.[6] One find

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[4] Frances Pritchard, "Silk braids and textiles of the Viking age from Dublin" in *Archaeological textiles NESAT* 3 ed. L. Bender Jorgensen *et al*. (Copenhagen: Archaeologisk Institute, Copenhagen University, 1988) 149-61. The analyses of silks in the two following paragraphs were carried out by Frances Pritchard. Elizabeth.Wincott Heckett, "The textiles" in *A Viking pit, High Street, Dublin,* ed. D. Murtagh, forthcoming.
[5] These finds are the subject of the forthcoming publication (Spring 2003) of *Viking Age headcoverings from Dublin*, Elizabeth Wincott Heckett, (Royal Irish Academy) in the series on the Medieval Dublin excavations 1962-81 as quoted in Note 2. Elizabeth Wincott Heckett, 'Some Hiberno-Norse Headcoverings from Fishamble Street and St. John's Lane, Dublin' *Textile History* 18(2) (1987): 159-74. Elizabeth Wincott Heckett, 'Some Silk and Wool Headcoverings from Viking Dublin; uses and origins - an enquiry' in ed. P. Walton and J. P. Wild *Textiles in Northern Archaeology* NESAT III York, 1987, 85-96, (London: British Council for Archaeological Research, 1990).
[6] Magnus Magnusson and Herman P·lsson, *Njal's saga* 14th ed. (Harmondsworth: Penguin, 1982), 248, 91.

from Dublin, DHC24 is a complete, short band in very good condition with the ties found in the same bundle. This could certainly be worn as a headband.

The largest silk scarf (DHC17) was dyed purple and could almost be worn as a wimple. The Queens in the 12th century Lewis Chess set, believed to be Norwegian and found in Scotland in the nineteenth century, give us an interesting glimpse of how the purple silk might have been worn. They seem to be wearing short veils under their crowns.[7] Another somewhat shorter scarf, DHC12, dyed blue with woad, could have been worn in a variety of ways around the head or shoulders, as a cap or band.
It can be seen that the caps are made to a well-understood pattern; a person setting out to make a cap had a clear internal concept of how this must be done and, with minor variations, kept to that construct. (Fig. 1) The wool caps were made from narrow pieces of material whose average width of *circa* 160 mm is established by the existence of both selvedges in six out of seven examples. However the silk caps were made from wider material that was specifically cut down to the necessary pattern. This may well mean that the first caps sewn to this pattern were made from wool cloth that was purpose woven to the particular width required. There are twelve caps of which three are in silk and nine in wool. There are also four remnants (one silk and three wool) which may perhaps be recognized as caps by comparison with the complete pieces.

The caps whether in silk or wool were made to conform to this same basic pattern with certain variations in length, width and sewing techniques. The preferred mode of construction was for the front edge of the cap to be rolled, or folded and sewn, or for a cord to be over-sewn onto that selvedge. Then the bottom edges were doubled folded to form a hem, *c.* 5mm wide, and hemstitched. The two back edges were over-sewn together from the outside after the cloth had been neatly turned inwards to a depth of between 2mm and 25mm. The over-sewing from the outside may not continue to the top of the cap but may change to a running stitch to make a dart curving inwards from about 50-100mm below the peak. This shapes the cap to the contours of the head. The stitched curve is absolutely typical of the cap pattern. The fabric in the peak was not turned inwards to produce a rounded effect on the head. Generally the running stitch seems to have been on the outside of the fabric leaving the peak of the cap standing up and visible to other people.
There are variations within this basic pattern; for example, in DHC32 the back of the cap has been over-sewn on the outside right up to the peak, and the curve dart stitched in afterwards with a running stitch. In DHC40 stitch-holes can be seen marking out the typical curve (the sewing threads have disintegrated). However there are no stitch holes where the back edges would have been sewn together although these have been carefully finished by being individually rolled and sewn. This suggests the back was never sewn together. Ties were sewn to the two front bottom edges of the caps although none are still there. The fabric in these areas, however, is pulled forward from ribbons or braids having been tied in place. As already noted, among other textile remains from Fishamble

[7] Neil Stratford, *The Lewis chessmen and the enigma of the hoard* (London: British Museum Press, 1997) 47.

Street/St John's Lane and the High Street pit there are narrow strips of braid and many silk ribbons which could have served as ties.[8]

Three different types of silk were used; the yarn could be Z/Z twist, Z/no twist, or have no twist in either weave system. Of the three silk caps DHC37 and DHC39 were made of Z/no twist, DHC40 of Z/Z twist yarn. There is only one selvedge on two of the caps (one Z/Z and one Z/no twist) and none on the other. DHC37 has the edges doubled folded into hems 2mm x 2mm, the front using the selvedge, the back being cut and sewn. It may be that the present length of 390mm does not represent the original since there is no stitching or hemming at the possible lower ends of the cap. The second cap, DHC39 (Pl.) of Z/no twist yarn has double patches reinforcing the tie area; a selvedge occurs on one of them but not on the cap itself. Only one side of the cap still exists to the bottom edge but the back top section has survived showing the characteristic shaped dart sewn from outside, leaving unsewn the back edges of the cap above the curve. The front edges are finished with a double hem of 3mm x 3mm, the back edge has a single folded hem with the raw edge caught down by hem-stitching.

The Z/Z twist silk of DHC40 (Figs. 2 and 3) is a light-weight veil-like weave which does not seem to be suitable for daily wear or to stand the strain of being tied firmly under the chin. Perhaps this cap was worn on dressed hair and pinned in place, or tied loosely at the back of the head. It has been darned in one spot in an irregular, criss-cross fashion and there seem to be stitch holes on the fabric perhaps from a patch. A tie that has been knotted back onto a frayed strand of the cap was made from a strip of the same cap material, folded and stitched and then attached about 140mm from the top. This depth between the cap top and the tie would not be big enough for an adult's head. The original cap size of 270mm would have been sufficient. This shows that the first wearer was an adult and later, when it was much worn, it was re-used by a child. There is a vivid contrast between the fineness of the silk fabric and the 'make do and mend' quality of the later repairs and adaptations.

Similar silk caps have been found in Viking Age York and Lincoln, England and just possibly in Danish London. These headcoverings, together with unused silk sewing thread and sewing implements found in Dublin, Waterford and York have also yielded much information on Hiberno-Norse sewing practices and technology. This has enabled comparisons with sites like Haithabu, Germany, Viborg, Denmark and York so that a clearer picture of skill levels the repertoire of techniques is emerging.[9] There is evidence of sewing on eight silk pieces. Many different sewing techniques were used. The sewing skills used in the headcoverings were not the only ones current in Viking Age Dublin.

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[8] Frances Pritchard 1988, 157. Wincott Heckett, Elizabeth "The textiles" in *A Viking pit, High Street, Dublin,* ed. Declan Murtagh (forthcoming).

[9] Mytte Fentz "En hørskjorte fra 1000-arene" in *Viborg Søndersø 1000-1300 Byarkaeologiske undersøgelser 1981 og 1984-85*, ed. J. Hjermind, M. Iversen and H. Krongaard Kristensen (Højbjerg: Jysk Arkaeologisk Selskab/Orhus: Aarhus Universitetsforlag, 1998), 249-66. Inge Hägg *Die textilfunde aus der Siedlung und aus den Gräbern von Haithabu. Berichte uber die Ausgrabungen in Haithabu, Bericht* 29. (Neumünster, Karl Wachholtz Verlag, 1991), 104-10. Penelope Walton, *Textiles, cordage and raw fibre from 16-22 Coppergate, the archaeology of York* 17/5. (London: Council for British Archaeology, 1989), 404-11.

Other pieces show techniques suitable for fabrics of heavier weight intended for different purposes. There was therefore a repertoire of sewing skills from which people chose the one that suited their purpose.
The types of hems are rolled, folded and over-sewn. The rolled hem is still generally used today as a finish on silk scarves since it gives the finest edging possible on a light material. On the Dublin pieces the selvedges have been lightly rolled and carefully sewn often with a whip-stitch. A narrow hem size was chosen which ranged between 2mm and 5mm and probably reflects the different properties of the cloth. Oversewing a hem from the outside is chosen to close the back of a cap and is also used to join two narrow pieces of material together along the selvedges to make a bigger piece. Running stitches are used to sew the curved darts on the caps. They are stitched from the outside through the two thicknesses of folded cloth making up the cap.

Stitch size and type; On the silk pieces there is a higher number of stitches per centimeter than the wool, with a smaller average stitch size (between three and six per centimeter, stitch size between 1mm and 2mm). This is probably a function of the fabric being sewn; it may also reflect a greater degree of care being taken with a precious material.

Piecing of fabrics: DHC38 is interesting since it is constructed or patched together from five different pieces of silk. Three parts have been pieced together to form a rectangle and two patches added to cover worn areas. In another example, DHC59 can be described as almost a sampler of sewing techniques, although it cannot be identified as a particular type of headcovering. Two narrow strips probably from the same long thin off-cut appear to have been cut in half and pieced together selvedge to selvedge with two different methods, over-sewing and flat fell seaming. The two outer sides of the fabric have been further extended by flat fell seaming cloth onto them. Although only tiny remnants of these extensions remain the flat fell seaming and shreds of silk can be seen clearly. The other two edges are hemmed using two different hemming techniques. One edge and part of the second were double folded and hemmed, the second part of one end was rolled and whip-stitched. On one corner of this piece the hem has been turned under at a 45^{o} angle to neaten the two edges and form a mitered corner.

Sewing thread: Both wool and silk sewing thread was used on the textiles. In DHC31 (wool cap) a silk thread has been used, and also possibly in one other piece, DHC42. Seven of the silk pieces were sewn with silk thread. The silk threads are both single and double stranded (S-plied).

Some of the sewing techniques are complex. The skills displayed on the textiles are still known and employed today. For instance, as we have seen, flat fell seaming which produces flat, strong joins with no raw edges in material was used. It is still current today for shirts and jeans, clothes that take a lot of hard wear at the seams. Flat fell seaming, piecing cloth and mitering corners are advanced techniques. In general the work on the Dublin pieces gives a clear impression of competence, skill and the ability to draw on the most suitable method for the task in hand.

It is clear that the people making these clothes were not novices. Many other types and variants of seams were employed underlining the fact that the art of dress making in northern Europe was certainly well established by the tenth century if not long before.

Waterford City: There are eleven silk items from Waterford.[10] These consist of two rich compound weave silks, two knotted mesh filets and seven braids (E527:478:6, *samitum;* E435:1160:6, *lampas*;). Tablet weaving and plaiting were used to make cords for various uses, including perhaps an archer's bowstring (E343:5368:285). The delicate hairnets are beautifully knotted and have survived surprisingly well (E527:1648:2 and 1667:2).

Dunmore Caves, Co. Kilkenny: A very recent find in Dunmore Caves, Co. Kilkenny is a small but important Viking Age hoard containing a scrap of fine weave, colored silk not yet analyzed, ornamented silver and intriguing silver wire pendant dress or head ornaments. It seems likely that the silk only survived through interaction with the silver.

Silk roads, other roads - trade and economy

There were several routes by which silk thread and cloth may have come to Ireland. One of these would be the sea route from Norway round the outer Scottish islands like the Hebrides and the Orkneys where there were Viking settlements to Dublin; trading then went on to Iceland. In Scandinavia well-known trade routes ran from centers like Haithabu, Birka and Kaupang to the eastern Baltic, and then down through Novgorod and Kiev to Byzantium. The compound silks found in Dublin and Waterford may very well have come from there.

Other trade roads linked Dublin with Chester and York. Anglo-Saxon coins found in Dublin point to trade with England, and there were historic ties between the Norse kingdoms of York and Dublin. As noted above, similar types of silk have been found in Dublin, York and London so it is likely there was interaction between these centers. In the eleventh century the Norse rulers of Dublin went on pilgrimages to Rome, and may well have brought back luxury goods with them. 'Souvenirs' of such visits have been found in Dublin. When they were traveling they may also have visited the fairs at places like Pavia in Northern Italy.[11]

As noted the Irish were using silk materials too in their churches, and for clothing. There is a reference to a market in the twelfth century in Dublin in what is now known as the Cornmarket. The twelfth century *Life of St. Kevin* contains an allusion to a market held in the monastic site of Glendalough to the south of Dublin.[12] In the *Oenach Carmain* text (305) describing the triennial fair of Carmun it is said that there were three markets taking place over seven days, one of which is one of which is '*margad mór na nGall*

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[10] Elizabeth Wincott Heckett "Textiles, cordage, basketry and raw fibre" in *Late Viking Age and Medieval Waterford, Excavations 1986-1992*, ed. M. Hurley, O. Scully with S. McCutcheon (Waterford: Waterford Corporation, 1997) 743-61.

[11] Chris Lynn "Some fragments of exotic porphyry found in Ireland" *Journal of Irish Archaeology* 2, 192 (1985): 25-31. Kenny, J. *The sources for the early ecclesiastical history of Ireland. Records of civilization, sources and studies*, 11. (Dublin: Padraic Ó Tailliuir/ New York: Octagon Books 1979).

[12] C. Doherty "Exchange and trade in early medieval Ireland" *Journal of the Royal Society of Antiquaries of Ireland* 110 (1980): 67-89.

ngrécach/i mbíd ór is arddétach' (the great market of the Greek foreigners where were found gold and fine raiment/cloth).[13] Perhaps such luxuries were not always traded through the Norse, although they may have attended the markets.

It seems that the Vikings were quite at ease moving through different *milieux* and traveled widely between them. For example, Harald Haardraade served in the imperial Varangian Guard in Byzantium, married a daughter of Yaroslav, king of Kiev in Russia and died in England at the Battle of Hastings fighting for the Saxons in 1066 AD. There were many others like him. The silk remains from Viking Age Ireland open a window through which we glimpse their world in many of its different and intriguing aspects.

Figures

1. Pattern for cap construction*
2. DHC 40, silk cap (textile)*
3. DHC 40, diagram of construction*
4. Silk filet, Waterford City (author's photograph)

*Figures 1, 2 and 3 are by kind permission of the Royal Irish Academy, Dublin from its forthcoming publication, *Viking Age Headcoverings from Dublin*, Elizabeth Wincott Heckett (Spring 2003).

[13] Fergus Kelly *Early Irish farming*. (Dublin: School of Celtic Studies, Dublin Institute for Advanced Studies 1997), 459.

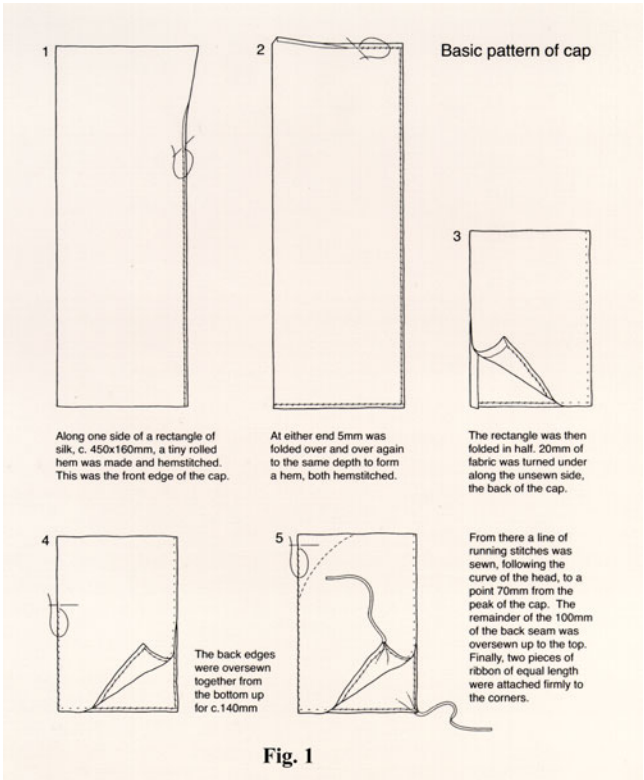

Fig. 1

Fig. 2

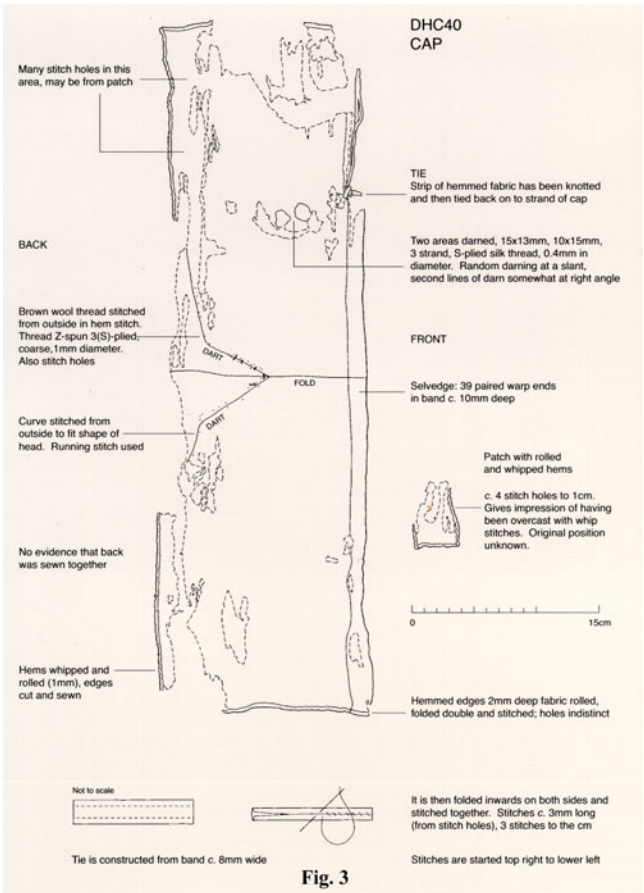

Fig. 3

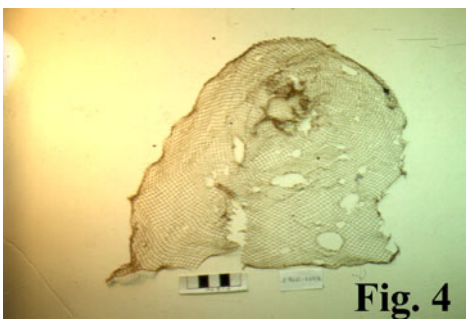

Fig. 4