Viking settlement in South-East Ireland

In 2007, the "Sea-Stallion of Glendalough", sailed from Roskilde harbour to Ireland around the coast of Scotland. This boat is a reconstruction of an original Viking long boat, known as Skuldelev 2 which was found scuttled, along with others, in a Danish harbour in the late 1950s. The reason for the 2007 voyage was to mark the original ship's origins; as many people are aware, studies of the tree-rings in the oak planks showed conclusively that it had been built in Ireland sometime after 1039 AD. What is less well known are the specifics of the t-values of the planks which gave rise to this conclusion; Dublin t-values are 11.04 while those from Waterford show t-values of 10.60. To quote the world's foremost expert on Viking ships and the man ultimately responsible for the Roskilde project, Ole Crumlin Pedersen:

> "on the basis of the analysis it can be concluded that the trees used in building the ship had grown in the area around the Irish Sea and probably in the area around the Irish Sea or in the region between Dublin and Waterford; that is south-east Leinster in Ireland."

Thus, when the Irish media claimed the boat to be that of Dublin Vikings they were simply making generalisations based on the well-known existence of the Viking settlement of Dyflin (*Dubh Linn – Black Pool*) on the shores of the Liffey – a trading settlement which has produced many Viking ships' timbers in excavations over the last 40 years. In reality, the science tells us that the ship was built further south. Approximately twenty-five years later, in the 1060s, the ship was repaired with trees which grew somewhere in Ireland, Wales or England – we cannot, unfortunately, tell which. It eventually ended up being sunk to reinforce a barrier made of wrecked ships across the entranceway into a Danish harbour, perhaps some time in the 1070s or later.

The "Sea Stallion" was the Porsche or the Jaguar of its day: low, long, expensive and very, very fast. It was not your common or garden vessel designed for multiple purposes and put together by the local community from a mixture of newly cut trees and re-used timber off older ships – intended for a bit of fishing, a bit of trading, and maybe the odd longer trip as well. The Sea Stallion, in contrast, was a royal vessel designed for use by the military élite of eleventh-century Europe. With its full crew of 60 rowers, along with helmsman and look-outs, it was designed primarily to move people from place to place at speed; the rowers were seated just over two feet apart along the entire length of the ship. There was nowhere to sleep apart from your bench; there was no hold to carry goods and, like a modern racing eight, it was simply designed to skim across the top of the water at maximum velocity. As a norm, it would not travel at night; the sail would be lowered and might serve as a cover to keep off the worst of the chill but if necessary the oarsmen could spell their rowing partners

in a constant rotation. Like a rowing eight, also, the ship is not particularly seaworthy in stormy conditions and one can understand why the Irish poet rejoiced in tempestuous winter seas: longships were designed primarily to move along the coastline in the summer fighting season and boats sailing through the North Atlantic rollers to places like Iceland and Greenland were, of necessity, rather sturdier in construction and profile than the Sea Stallion. Once boat building of this type was introduced to Ireland and its advantages were appreciated, it quickly became naturalised – as late as 1222, Henry III issued orders to the men of Waterford, Limerick, Drogheda and Dublin to provide Scandinavian-style war galleys for his use.

The data from the Sea Stallion voyage is still being analysed by the Viking Ship Museum in Roskilde; prior to the journey, archaeologists and seamen had posed questions such as "how fast can the ship travel at various angles to the wind in various wind strengths", "how long does it take to raise the sail" and and "how do the oars benefit the ship's performance"? To some extent the answers to such questions must always be hypothetical for they depend ultimately on the skill, strength and experience of a particular crew. For what its worth, however, it has been suggested that with a following wind and a fresh crew of oarsmen, the journey from Roslare to Pembroke may have taken as little as five to six hours. These ships thus revolutionised communications as well as transport; they had the same cultural impact on medieval Europe as the introduction of mobile phones has had in the modern era.

Viking ship technology was not, of course, limited to warships. In fact, the excavated ship timbers from Waterford (mid eleventh to thirteenth century) predominantly reflect trading vessels – deeper hulled vessels propelled entirely by sail and manned by a crew of only four or five men. This, in turn, had an impact on the technology used; so, for example, the yard for the sail would be raised by a windlass arrangement whereas on the warships there were enough bodies available that they could raise it entirely by hand. Waterford has also produced small boats intended entirely for river use; it seems as if many of the trading ships simply anchored in the middle of rivers such as the Suir and goods were then ferried ashore. Analysis of the timbers of these Irish boats make it clear that, while they are all built by men working within the Scandinavian tradition, the actual oak as well as the pine and ash (used for planking) grew on Irish soil. Good trees were very valuable: a story in *Cogadh Gaedhel re Gallaibh* tells how the king of Leinster gave three tall pines for masts as a token of his submission to Brian Boru at Killaloe.

By the time these ships were being built, Vikings and Viking ship-builders were well established in Ireland and their colonies were an integral part of a maritime trading empire. One of the features of the Waterford excavations, for example, are the extensive remains of pottery. From the later eleventh century, there was a major trade in cooking wares from Normandy, Cornwall and south-west England, especially Bristol. For the rich, there were also more exotic jugs for wine and pottery drinking horns from rather further afield such as the Low Countries, Germany and the Saintonge region of south-west France. In return, Irishmen

and naturalised Vikings could export, among other things, vast quantities of fish which they were catching on a commercial basis. In 1171, for example, two men from Gloucester claimed they had spent 480 ounces of silver buying herring in Wexford in order to feed Henry II's army.

The exact locations of the Viking settlements in Ireland are often a matter for debate. From the placenames involved we can be sure that settlers speaking Old Norse established themselves at urban sites such as Waterford, Wexford, Arklow and Wicklow. The names of these towns all seem to relate to their physical characteristics ; Waterford (*Vedrafiord*, *Watreford*) has been interpreted as *Ueðar-fjörðr* "windy arm of sea" while Wexford (*weiseford*, *veiseford weyseford*) has been understood as *Ueigs fjörðr* or marshy –fjord. Arklow and Wicklow both end in the element *ló* meaning sea-pasture, belonging to Arnkel and Víkingr respectively. Other placenames have the element *aurr/eyrr* which is a pebbled beach or promontory – thus Cahore, Carnsore and Greenore. Islands such as the Saltees (salt-island), Dalkey (thorn-island) and Lambay (lamb-island) end in Norse *Øy* while Tuskar rock and Skerries both have the element *sker* - a rock isolated in the sea.

Windgate (on the side of Bray Head) seems to incorpate both Old Norse *wynd* (lane) and *geata* or way ; Windgap in Waterford (which is still locally pronounced as whine-d gap) may have similar origins. Outside Dungarvan we find not just Helvick Head (*Helvickeshead*) either Port of the Cave or Port of Flagstones but also, to its south the Irish placename *Ceann an Bhathala* which seems to relate to *vadill* or sea-ford. Within a kilometre, there is also Ballynagaule (townland of the Foreigners) and five kilometres to the west is Killongfort or the church of the ship-place. (*Longphort* is the term used by Irish annalists to describe the earliest defended fortifications established by raiders in the mid ninth century).

In the same general area we also find townlands such as Terrysstang from Old Norse *stang* meaning a pole (a term which is used in land-measurement in England) and, across the border in Cork, Dunkettle from the Old Norse name *Kettill.* Ballyhetterick (in the parish of Clonmel) is the townland of Sitric; Assagart (in Kilgarvan) may be a *Ás's gardhr* or enclosed land belonging to a man or god named Ás; Arnestown in Ballingly may be based on the Old Norse name Árni and so forth. The problem with personal name elements is to distinguish between placenames representing the original Norse settlers in Ireland and those which instead represent later English and Norman arrivals since both those countries had also been colonised by Scandinavians and had adopted many of the same names. It is only when we have early sources – such as the *Song of Dermot and the Earl* - where we can be sure that the name represents the pre-Norman situation. One such name is however, Leinster itself, recorded in the *Song* as Leynestir. The word is made up of two Irish words: *Laigin* (or Leinstermen) and *tír* (country) but instead of being in the Irish word order such as Tyrconnell or Tyrone, it is instead put together by people who put it the other way around: the Leinstermen's *tír*. This is clear evidence that there were relatively large numbers of speakers who were thinking in Old Norse in Ireland, possibly adulterated with Old and Middle English, before the Norman colony was established. (The Waterford barony of Gaultiere is constructed in the same way: Gailltír or Foreigner's land and within that barony we find Ballygunnar – from Norse Gunnarr and Ballymaclode which seems to refer to the Norse Hebridean name Mic Leoid or McLeods). Owing to a lack of Old Norse language experts working in Ireland, the whole question of Norse elements in Irish placenames is severely under-researched and it is quite possible that our entire picture of Norse colonisation in Ireland could be transformed with further work.

On rare occasions, Irish historical sources also refer to Vikings living outside the major urban settlements. A collection of poems called *Lebor na Cert* or the Book of Rights was put together by someone who was clearly a follower of the O'Brien kings of Killaloe in Co. Clare sometime around the year 1100. These include two poems on Leinster; one detailing the gifts made by the O'Brien kings to the Leinster leaders; the other, describing what Leinster kingdoms needed to pay the O'Briens as tribute. This text makes it clear that the Viking settlers were completely incorporated into the local taxation system:

> Upon the Foreigners is charged the first part of this rent, seven hundred flitches of bacon, seven hundred boars, seven hundred wethers, seven hundred oxen, seven hundred cows, and seven hundred cloaks, that is from the Foreigners…
>
> Those rents are paid every third year, besides the chief rent of the king of Ireland, as we have said above….

The accompanying poem makes it clear that the Foreigners were living within the territory of the Uí Cheinnselaig or Kinsellas who ruled the southern part of Leinster from their fortress at Ferns:

No rent—a fair compact—
is due from the valiant Uí Chennselaig,
but only from the sturdy stranger-families
that use their grass and land

This poem illustrates the point that archaeologists such as John Bradley have been making for many years. Archaeological investigation in our cities has made it clear that many Vikings lived cheek by jowl in tightly clustered settlements by the coastal river mouths in settlements defended and cut off by major fortifications made of earth and stone. At the same time, they must have had access to the surrounding countryside in order to build their houses and provide themselves with food. In Waterford for example, the excavations of the late 1980s produced over 700 fragments of leather footwear as well as clear evidence for workshops manufacturing objects from animal bone, antler and horn. In Dublin, palaeobotanical analysis has shown that the city folk enjoyed eating sloes, hazelnuts, apples, plums and beans as well as eggs, meat, fish and cereals. They also slept on beds of heather and fern and their floors were covered with rushes. Such goods needed to be transported in from the surrounding countryside. The question is: did the Vikings march out and take what they needed at sword-point? Or did many of them have relatives and friends living in the countryside who could provide the supplies needed for the towns in a more normal trading environment? The Icelandic writer Snorri Sturlson refers in the early thirteenth century to *Dyflin ok Dyflinnarskíri* "Dublin and the Dubliners' shire" which seems to imply that the city had some form of hinterland under its immediate control and ongoing work by Paul Holm in TCD is attempting to define the parameters of this region.

An exciting feature of the finds from the newly discovered site at Woodstown in County Waterford is the indication that there, at that site, agricultural and other goods were apparently being exchanged in a commercial setting with silver being used as part of the transaction. The Woodstown site is a large enclosed area by the banks of the river Suir, just south of the WIT campus at Carriganore. The site was discovered in 2004 as part of the works undertaken in advance of the city bypass. In the course of investigating an area for culverting, archaeologists stumbled across a fortified bank (apparently planted with gorze or thorn-bushes) and outer ditch. Immediately outside of this, close to a causeway leading across the ditch, was the burial of a Viking warrior together with his weapons. These included a battle axe, a spear, a shield and a sword of ninth-century type with a very worn edge which may indicate that it was an heirloom at the time it was buried. The spear was of a type which has been found in Dublin (the socket was ornamented with engraved rings) and similar weapons are described in Irish sagas as being the highly valued possessions of contemporary warriors. The area inside the ditch has yet to be examined in detail (only 8% of the site was investigated) but geophysical survey has shown up extensive activity within the two fields enclosed by the line of the bank. Detailed examination of the soil thrown up from the herring-bone system of trenches cut by JCBs at 45m intervals has produced nearly 5000 finds.

Amongst these were 208 lead pan weights, 30 pieces of hack silver, a couple of small nodules of molten silver and one complete silver ingot as well as items of jewellery such as ring pins and arm rings. In Dublin graves of ninth-tenth century date as well as elsewhere, we find little portable scales which could be carried in a pouch on one's belt. Using the weights (whose average weight peaked at 11 gms and 22 gms), one could use these to measure out the amount of silver one wanted. This could also be carried around in a pouch but what many Vikings in Ireland did was to flatten the ingots out with a hammer and make them into simple armrings decorated with stamped designs. The jewellery which ornamented your sword arm was thus also your bank account.

208 weights is an enormous number and, proportionately, there are far more weights in Woodstown than has been discovered in forty years of excavations in Dublin. Clearly there were many people exchanging things for silver in rural Waterford. 11 and 22 gms convert to 0.4 and 0.8 of an ounce of silver and Brehon law tracts indicate that an ounce of silver was a valuable commodity in early Ireland. The Brehon lawyers identify the cost of life in Ireland in considerable detail and their smallest unit is half a *screpull* or a piece of silver worth 1/48 of an ounce. This was the cost of a fleece of white wool or a non-broody hen (*cerc cen rún* – hen without a secret) or the honour price which was payable to a young leather-worker who was still being trained by a master craftsman.

A full ounce was considered the price of a milk-giving cow i.e. four years or older. Half an ounce was a dry heifer who had yet to be brought to the bull while three quarters of an ounce was the price of a pregnant cow or the equivalent of six sheep. What we seem to

have at Woodstown, therefore, is a series of relatively small transactions by large numbers of people. The silver they were using could originate a very long way away; among the chopped up coinage found on site includes a Kufic coin from the Middle East. Some of the objects they were trading in also came from far beyond Ireland's shores; one find from the ditch included an ivory bead which seems to have come from North Atlantic walrus as well as amber which, in origin, must be from the shores of Denmark and the Baltic Sea.

The sampling strategy used to recover the finds did not favour the discovery of organic objects and it is unclear, as yet, how much settlement existed within the boundary ditch and bank. Among the objects discovered, however, are fishing hooks, net weights, a fragment of a rotary quern which may have been used for grinding cereal, 2 possible wood-working axes and ten hone stones for sharpening knives. There is also considerable evidence for spindle whorls – the weights which were used in the creation of drop spindles for spinning. Opinion is currently divided as to whether this indicates the presence of women on the site; certainly all our textual evidence indicates that it was the women who spun wool and made clothes but spindle whorls do also turn up on the camps of the great Viking army in England, on sites such as Repton, and some have suggested that Viking warriors may have deployed their winter leisure time in such activities. (I myself tend to a rather more traditional style of interpretation and I imagine that Viking armies had a large number of more or less voluntary camp followers who kept the soldiers fed, watered and amused.)

One of the most dramatic category of finds were the 1, 473 nails of which 275 were clench nails. These were traditionally used in shipbuilding and in some of the sturdier forms of window and door construction. Since the excavations in Waterford city, Wexford (at Bride Street), Cork and Dublin make it clear that most Viking houses were wattle and daub structures made from hazel poles (and geophysical survey has not turned up evidence of heavier constructions on the site), it seems most likely that in this instance they represent ship-building. This would tie in with the evidence of hemp pollen found in botanical cores taken close by for we know that hemp was used to construct sails in the Viking world and indeed, an early Irish poem, specifically refers to *gall cas a cnápluing* – "a curly headed foreigner from a hempen ship". Iron hammers and evidence of iron smelting was also recovered as well as evidence for copper-alloy and lead working and at least one wood-working axe.

All of this makes it extremely likely that Woodstown is an example of what the Irish annalists call a *longphort* or ship place. This term is used in the mid ninth-century entries, describing what seem to be the first long term Viking base-camps set up in Ireland. They are defended structures – one entry uses the word *dúnad* or fortified place as a synonym for *longphort.* They also have some area of open ground within them which was sufficiently large to keep animals; in 866 the Irish high-king Áed mac Néill attacked the *longphoirt* of the Foreigners and took their herds and their flocks from within them. Archaeological survey at sites such as Dunrally in Co. Laois and investigation of older finds undertaken by the

National Museum has shown that they tend to be located at the junction of two rivers and are often surrounded by marshy land. Defence rather than comfort therefore seems to be the key element in their location. It is not clear how they developed over the longer term; we know, for example, that there was a *longphort* in the river Liffey but what its precise relationship was in relation to the later *Dyflin* is not yet clear. Some have speculated that Woodstown may have been a precursor to the later establishment of Waterford (where remains of the very earliest Viking period have yet to be discovered) but we are not yet in a position to date the occupation of Woodstown conclusively and so this remains an open question.

Apart from *longphorts* and the urban sites, we are, as yet, unclear about the nature or extent of Viking settlement in the wider landscape of rural Ireland. At Cherrywood in south county Dublin a Viking long-house has been found which, in design, if not in manufacture, is typical of houses from Scandinavia and the north Atlantic colonies. (It is very different in layout from the urban houses found in the Viking cities of Ireland.) To what extent this may be typical of rural Viking settlement we do not know. Hoards of Viking silver ingots and arm-rings are found throughout the south-east, especially in Kilkenny (at Derrynahinch, Dunmore cave and Dysart - also at Blackcastle in Wexford and Kilmacomman and Knockmaon in Waterford). It is not clear whether these represent Viking settlers or people simply passing through and it may even be that some of the material was collected and deposited by Irish people rather than Vikings. Certainly the distribution of both Viking swords and Viking jewellery, looked at nationally, seems to imply that Irish people treasured the goods brought in by the Scandinavians and that they became fashionable across both ethnic communities. One must bear in mind, as well, that archaeologists tend to discuss only the objects which survive to be excavated; because of the wealth of Irish texts from this period we know that the Vikings also introduced items to Ireland such as exotic cloaks with fur trim – *mǫtul* and *skinni* (English "mantle" and "skins", Irish *matal*) as well as silks, saddles and other luxury goods.

A final question which arises is where did the Vikings who came to south-east Ireland originate? As a general rule, we tend to assume that the Vikings who settled on this island are Norwegian in origin for it was the Norwegians who seem to have sailed west into the Atlantic and colonised the Northern Isles and the Hebrides and Irish style jewellery and precious goods have been found in early Viking graves along Norway's western coast. This makes them rather different from English Vikings, many of whom came from Denmark and simply sailed straight across the Irish Sea. There is also the need to differentiate between the earlier Viking settlers and those who might have settled in Ireland after the creation of King Canute's Viking empire around the turn of the millennium – (1016-1035) when England, Denmark, large parts of Norway and even parts of Sweden were all under the control of a Danish Viking and his English wife. A preliminary study, undertaken by Brian McEvoy of the department of Genetics in TCD, has suggested that perhaps many Irish Vikings were second generation colonists and frontiersmen – who arrived in Ireland from Scotland and England rather than directly from Norway. His conclusions are, however, shortly to be tested; funding and sponsorship from the Irish Research Council for the Humanities and Social Sciences, Mary Immaculate College, NUI Galway and Wexford Borough Council has just been awarded to undertake

a more more extensive testing of local people from various Viking cities around the coasts of Ireland.

This study aims to identify local surnames which are long established in a given region but which represent different languages in origin: Irish, Norse, Norman French and English. Each cohort will be tested (via analysis of throat swabs) to see if they carry ethnically distinctive DNA characteristics. One of the hot topics currently under debate amongst population geneticists is how quickly do specific strings of DNA in one's Y-chromosome inheritance mutate; does a son inherit through his father a Y-chromosome type which is distinctive over millennia or do they, in fact, alter more rapidly through time. Ireland is particularly well suited to study this phenomenon for here we have ethnically distinctive surnames of both Norse and Norman origin – did the DNA alter over that three-four hundred year span or are our Normans (genetically speaking) indistinguishable from their earlier Scandinavian ancestors? To what extent, too, does extensive inter-marriage (and concubinage) hasten the rate of change? One of the aims of the project is to try and determine whether – say – a Wexford man is clearly the descendant of a Viking, a Celt or a Norman and to what extent is he instead simply a man from Wexford – both culturally and genetically. This programme of testing will begin in 2012 and will be ongoing; once the relevant surnames (which will be specific to each locality) have been identified, advertisements will be placed in the local newspapers and on the radio asking for volunteers with those surnames who can prove their family has been resident in the region for at least two generations. It is hoped to publish the findings from this study at a conference to be organised in Wexford in October 2012. People wishing to learn more about this research can, however, also write to Catherine Swift, Irish Studies, Mary Immaculate College, South Circular Road in Limerick or keep an eye on the website: www.vikingage.mic.ul.ie.

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