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Military Archery in Medieval Ireland: Archaeology and History

Introduction

In studying Irish medieval warfare the bow and arrow is of particular interest for many reasons. It is by far the most frequently represented weapon in the archaeological record and unlike other weapons it tends to occur in datable contexts on excavated sites. This is largely accidental, because bows and arrows were of little monetary value and easily broken and lost, but the fortunate result is that a more comprehensive and reliable archaeological study is possible for the bow and arrow than for any other medieval weapon. There is also a greater wealth of useful historical information available than for other weapons of medieval Ireland. Thus it is possible not only to study the bow and arrow as archaeological artefacts but to place them in their natural context, which is the history of warfare. A study of the history of the weapon reveals that it is particularly appropriate, and not entirely accidental, that the bow and arrow is so well represented in the archaeological record of medieval Ireland. There is probably no other period in which the weapon was of comparable military importance.

Historical information thus adds greatly to the value of an archaeological study of bows and arrows. The converse is equally true, however. Military history, not surprisingly, is largely written by historians using documentary sources, but even the present limited study demonstrates that archaeological analysis of the actual technology of warfare can enrich and, on occasion, be a corrective to received theories of military history.

The Hiberno-Norse period (*c.*800-1169)

The bow was been used in Ireland in the Neolithic and early Bronze Age periods, but the practice of archery seems to have declined in the later prehistoric period. There is no definite evidence for the use of the bow in Ireland between the early Bronze Age and the Early Christian period, i.e. c.1500 BC to 800 AD. The Vikings, it seems, must be credited with the reintroduction of the bow and arrow to Ireland. During the Viking period the bow was widely used both in Scandinavia itself and among Scandinavian settlers in many parts of Europe (Hardy 1986, 28-30; Bradbury 1985, 23). The use of the bow by the Vikings in Ireland is attested above all by bows and hundreds of arrowheads discovered during recent excavations in Dublin, Waterford and Limerick, in contexts of the 10th to 12th centuries. But documentary evidence is also reasonably plentiful. Indeed the Irish word for a bow, bogha, is a Norse loan-word (although curiously enough the word for an arrow, saiget, may be an earlier borrowing from the Latin sagitta). References to Viking archery first occur in 9th century annalistic entries, and Irish narrative texts also provide evidence for Norse archery. The author of an early 12th century text Cogad Gaedel re Gallaib, describing the weapons of the Norse at the battle of Clontarf (1014), mentions before any others their "sharp, swift...barbed (frithbaccanacha)... murderous, poisoned arrows (saigti)" and their "polished, yellow-shining bows (bogada blathi blabuidi)" (Todd 1867, 159-161).

Arrowheads

Archaeological excavations in Dublin have produced hundreds of arrowheads from contexts of the Hiberno-Norse period, i.e. early 10th to late 12th century (Fig. 1).

The Dublin arrowheads can be said to feature three main blade forms: (1) leaf-shaped or shouldered, (2) triangular, sometimes with barbs, and (3) a narrow, solid spike-like blade. Each of these blade forms occurs in both tanged and socketed forms, producing six distinct arrowhead types (Types 1-4, 6-7). A seventh type (Type 5), although it could be considered a triangular bladed form, is in reality quite different and must be regarded as a separate type. As regards the relative popularity of these arrowhead types, the overall proportions (regardless of period)

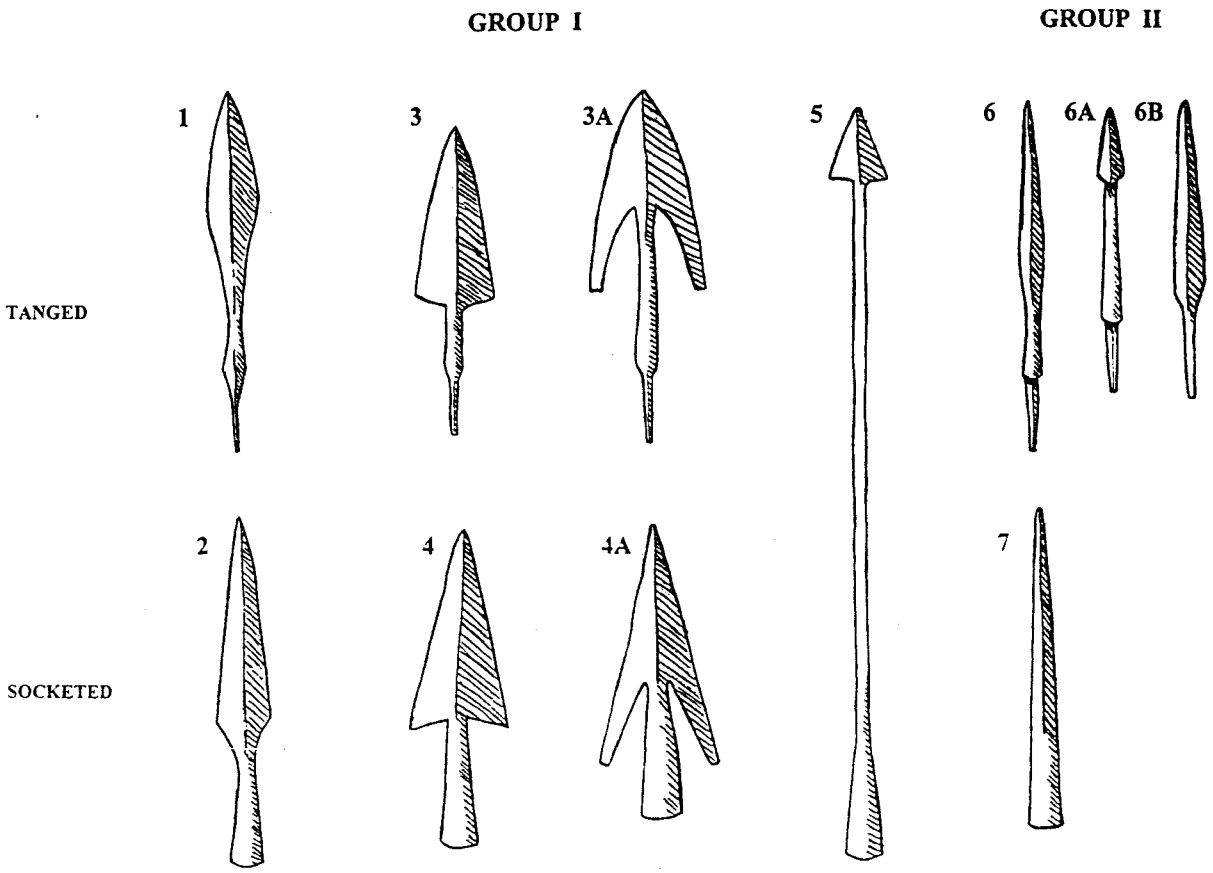


Fig. 1. - *Typology of Hiberno-Norse period arrowheads from Dublin.*

reveal Type 7 to be by far the most common type, with 52% of the total, followed by Types 1 (15%), 6 (13.5%), 2 (9%) and 4 (6%). Types 3 and 5 are rare forms, at 2.5% and 2% respectively (Chart 1).

Prevalence of arrowhead types

In view of the historical and archaeological evidence that archery was essentially unknown in Ireland until its reintroduction by the Vikings, one of the most interesting things about the Dublin arrowhead assemblage is that the typically Scandinavian tanged forms (i.e. Types 1, 3 and 6), while present, are far from being dominant. Together they account for no more than 31% of the total assemblage. A further feature of the Dublin assemblage is the decline in the representation of these Scandinavian-derived tanged types, from the 10th to 12th centuries.

The Scandinavian forms represent 46% of the total assemblage of arrowheads from 10th century contexts (Chart 2), but this falls to 28% in the 11th century (Chart 3) and 32% in the 12th century (Chart 4).

This decline is particularly marked in the case of Type 1, which could be described as the Viking arrowhead type par excellence, and is the most com-

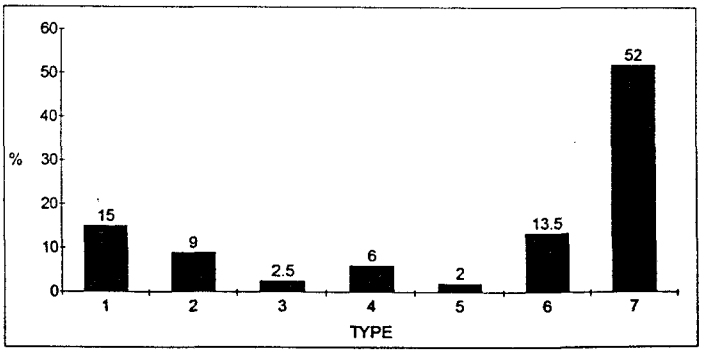
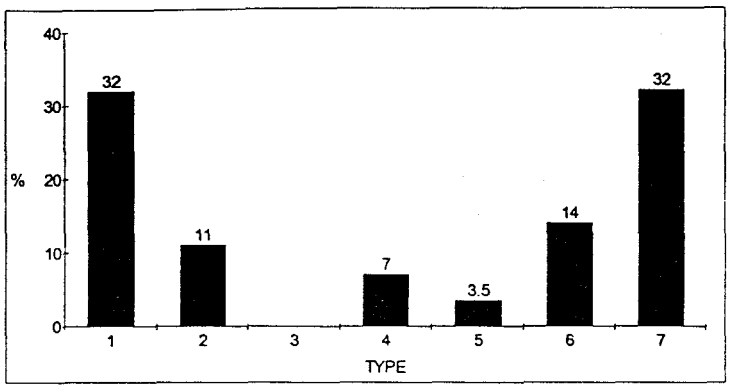


Chart 1. - *Dublin arrowheads, Hiberno-Norse period: Proportions of types (by percentage of total).*

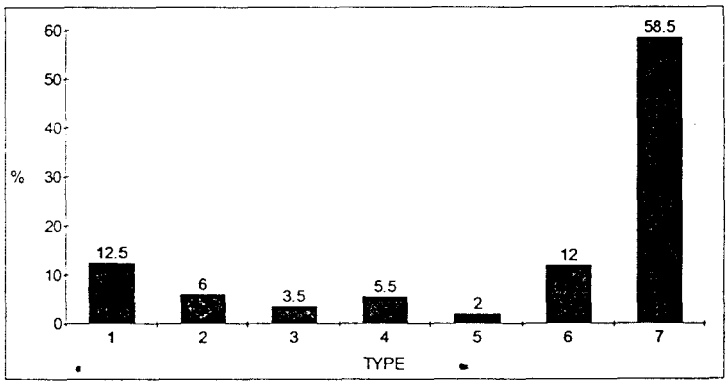
Chart 2. - *Dublin arrowheads, 10th century: Proportions of types (by percentage of total).*



mon arrowhead type found on Viking-period sites in Scandinavia. In Dublin, Type 1 is (along with Type 7) the most common arrowhead type in the 10th century, with 32% of the total. Indeed, in the first half of the 10th century it accounts for over 60% of the (admittedly small) total. The popularity of Type 1 falls dramatically, however, to 12.5% in the 11th century and 7% in the 12th century.

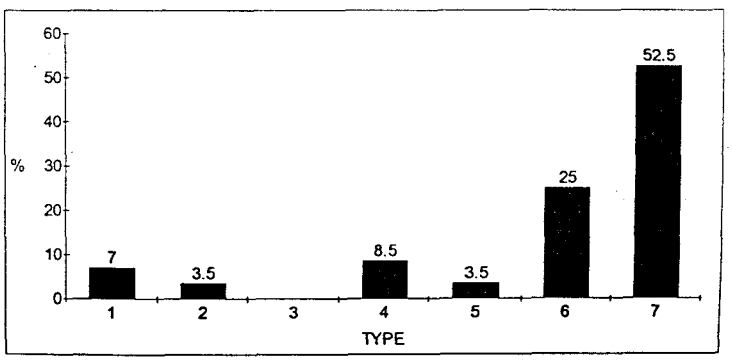
The implication that Scandinavian influence in the Dublin arrowhead assemblage declined steadily from the 10th century onwards is, perhaps, not surprising. What is surprising, however, is the apparently low level of Scandinavian influence even in the 10th century. The majority of Dublin arrowheads are of forms which, it seems, were not commonly used in Scandinavia. Indigenous Irish development seems

Chart 3. - *Dublin arrowheads, 11th century: Proportions of types (by percentage of total).*



unlikely but other sources of inspiration are difficult to identify. Theoretically, the most likely source of influence is contemporary Anglo-Saxon England, but the known assemblage of Anglo-Saxon arrowheads is extremely small (Manley 1985) and while forms similar to Type 2 are common, the other socketed forms, Types 4 and 7, are not well represented. Arrowheads of Types 4 and 7 were widely used by the Normans, but their popularity in Dublin can hardly be attributed entirely to Norman influence since it predates the Norman conquest of England. In terms of popularity, Type 7 forms a striking contrast

Chart 4. - *Dublin arrowheads, 12th century (to c.1170): Proportions of types (by percentage of total).*



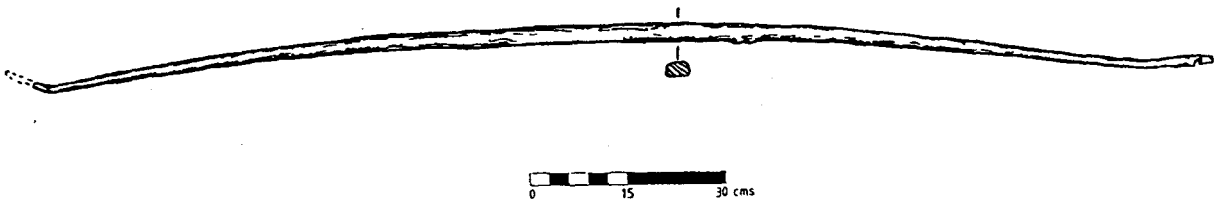


Fig. 2. - *Bow from Ballinderry crannog, Co. Westmeath (after Hencken 1935-37).*

to Type 1. This type accounts for 32% of the total in the 10th century, although it is present only from the middle of that century. In the 11th and 12th centuries it is by far the most common type, at 58.5% in the 11th century, falling slightly to 52.5% in the 12th century.

Function

A particularly interesting issue is the functions of the arrowhead types, specifically the question of whether they were used for warfare or hunting. The spike-like blades of Types 6 and 7 are clearly designed to penetrate body armour and these armour-piercing types make up 65.5% of the total. The rare Type 5, which represents only 2% of the total, is interpreted as an incendiary arrowhead and thus should also be classified as military in function. The other types, with leaf-shaped or triangular blades, could have been used either for warfare or hunting but there are grounds to suggest that a considerable proportion of them were also intended for military use. For instance, the relative frequency patterns of Types 1 and 7 suggest that Type 1 was effectively replaced by Type 7 from the mid-10th century onwards. This would imply that Type 1 was also substantially military in function. Overall, it can safely be argued that at least 70-80% of the Dublin arrowheads are definitely military in function, while the number that can definitely be classified as hunting arrowheads is probably little more than 5%. These statistics are confirmed by similar proportions in the second largest Irish arrowhead assemblage, from another Hiberno-Norse town at Waterford (Halpin 1996) and they strikingly demonstrate the essentially military nature of Viking archery in Ireland.

Armour

The prevalence of armour piercing arrowheads in these assemblages clearly raises questions about the use of armour in Hiberno-Norse Ireland. It is particularly interesting that armour piercing arrowheads first become common in Ireland in the second half of the 10th century, at almost precisely the period when the wearing of chain mail armour seems to have become more common among Anglo-Saxon warriors in England (Brooks 1978, 87-93). In contemporary Irish sources armour seems to mark a significant difference between Irish and Viking, with the consistent suggestion that the Irish did not wear armour, while the Viking did. Both annalistic and narrative texts frequently refer to coats of mail and helmets worn by the Vikings, and contrasts are often drawn between the mailclad Vikings and the unarmoured Irish. Indeed, in two early 12th century texts, Cogad Gaedhel re Gallaibh (Todd 1867, 53, 67-69) and Cathreim Cellachain Chaisil (Bugge 1905, 65-66, 102-03), Irish military failures are specifically attributed to the ineffectiveness of their weapons against the armour of the Vikings. Such testimony to the use of armour in Hiberno-Norse Ireland has not, in general, been taken very seriously by historians, but the evidence of the arrowheads, although indirect, suggests that it may have a greater basis in fact than has hitherto been recognised.

Native Irish archery

There is little evidence to suggest that the Irish learned to use the bow from the Norse, and archaeological evidence for archery on native Irish sites of the period is almost non-existent. Remarkably, however, one of Europe's finest early medieval longbows was found in a late 10th century context at the crannog of Ballinderry, Co. Westmeath (Hencken 1935-37, 139, 225; Fig. 8: D). The bow (Fig. 2), of yew wood, is currently 185cm in length but one end is missing and its original length was probably c.190cm. The crannog of Ballinderry, in the midlands of Ireland, produced a full range of "classic" Viking weaponry: A sword, battle-axe, two spearheads and a socketed knife were also found and together with the bow, seem to provide a graphic example of the extent to which Viking weaponry could on occasion be adopted by the Irish. Regardless of whether it was used by an Irish or a Viking archer, there can be little doubt that this bow is ultimately of Viking background.

The Anglo-Norman period (1169-*c.*1350)

Thus the bow can hardly have been unknown to the Irish on the eve of the Anglo-Norman invasion of 1169-70. Nevertheless when confronted by Anglo-Norman archers the Irish were, in the words of the contemporary chronicler Giraldus Cambrensis, "paralysed and panic stricken by...the sudden wounds inflicted by our arrows" (Scott & Martin 1978, 231). It may be that what terrorised the Irish was not bows in themselves, but the effectiveness with which they were used by the Anglo-Normans. While the Norse clearly used bows in Ireland, there is nothing to suggest that they ever employed organised corps of archers as the Anglo-Normans did, and thus the Irish had probably never experienced anything like the firepower of the Anglo-Norman archers.

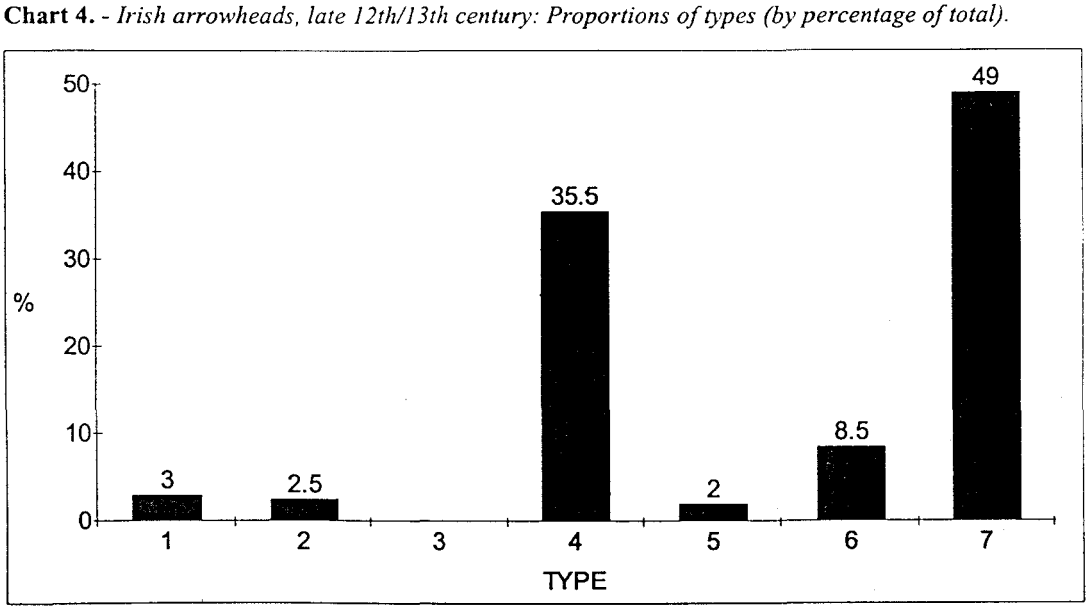
Archers were an important part of most Norman and Anglo-Norman armies. Hastings, in 1066, was perhaps the first medieval European battle in which archery demonstrably played a major role (Bradbury 1985, 25) and the bow was widely used in post-Conquest England. It is thus not surprising that archers were present in large numbers in the Anglo-Norman forces that invaded Ireland. Analysis of the contingents for which detailed figures are given by Giraldus Cambrensis (Scott & Martin 1978) reveals that archers account for over 85% of the total. Giraldus describes these archers as being "the flower of the youth of Wales", but unfortunately says very little about their role in the conquest of Ireland – an example of aristocratic chroniclers' prejudice against archers (who were invariably commoners) and in favour of cavalry, noted by Bradbury (1985, 1-3, 40, 76) in medieval sources. Practically Giraldus' only comment on the archers concerns their role in protecting formations of milites from sudden Irish attacks, and he makes a point of warning all future commanders to ensure that large numbers of archers were maintained in their forces (Scott & Martin 1978, 249).

However, the sheer numbers of archers involved suggests that their role extended far beyond merely protecting the cavalry. Against unarmoured opponents with no experience of archery, such as the Irish were, the impact of large numbers of archers acting in a coordinated manner could have been enormous. In a particularly relevant parallel, Strickland (1990, 192 & n.101) notes the "devastating effect" of Anglo-Norman archers against unarmoured Scots at the battle of the Standard in 1138. The importance of archers in the Anglo-Norman conquest of Ireland has almost certainly been underestimated, and it seems inconceivable that the Anglo-Normans would not have exploited the obvious potential of their archers in battle.

13th century Ireland

The continued importance of archery in the Anglo-Irish colony in the 13th century is indicated by substantial archaeological evidence and documentary evidence including records of craftsmen manufacturing bows and arrows and also, apparently, professional archers in Dublin (Martin & Connolly 1994, 23, 44, 57, 71, 72, 91, 105). A poem dated 1265 claims that the town of New Ross could muster 363 crossbowmen and 1200 other archers (Shields 1975-76, ll.168-177). A lack of detailed information pre-

Chart 4. - *Irish arrowheads, late 12th/13th century: Proportions of types (by percentage of total).*



cludes definitive statements about the relative importance of archers and other forms of troops in Anglo-Irish forces of the 13th and early 14th centuries. However, while archers were undoubtedly present in most cases, the indications are that archery was subordinate in importance to cavalry (both heavy and light) in the military economy of the Anglo-Irish colony. During the 13th century, too, annalistic references to individuals killed by Irish archers indicate that for the first time the native Irish were making widespread use of the bow.

Despite the prominence of archers, the Anglo-Norman conquest does not appear to have led to the introduction of new arrowhead types to Ireland; if anything, indeed, the range of arrowhead forms decreases. Arrowheads are found in late 12th/13th century contexts on a wide range of sites, including many early Anglo-Norman castle sites, although Dublin still provides the majority. By this date the Scandinavian types (Types 1, 3 and 6) have almost entirely disappeared, apart from a small number of late 12th century survivals, and the assemblage is dominated by two types, Types 4 and 7 (Chart 5). Curiously, the armour-piercing Type 7 is actually at a slightly lower level of popularity (49%) than in the 11th and earlier 12th centuries. This is unlikely to reflect any significant decline in the use of armour, however, but rather is due mainly to a dramatic increase in popularity of Type 4. This socketed, triangular-bladed arrowhead occurs in this period in a distinctively Anglo-Norman form, with particularly large, broad blades with marked midribs. Arrowheads of this form have, in many cases, been considered as hunting forms, but the contexts in which they occur in Ireland, including several early castle sites, point in the strongest possible manner to a military function.

Welsh archers and the longbow

The Welsh archers who were so important in the invasion of Ireland, and are graphically described by Giraldus Cambrensis in other works, are important figures in the military historiography of the Middle Ages. Oman (1885) and Morris (1901) saw them as crucial to the 14th century emergence of English military archery, based on the longbow, as a potent force that revolutionised warfare, not only in Britain but in much of Europe. They claimed, firstly, that the Welsh developed the longbow as a distinctive weapon and secondly, that Edward I (1272-1307) recognised the potential of the longbow as used by the Welsh and introduced large numbers of Welsh archers into his armies, while at the same time encouraging the use of the longbow among the English peasantry.

This theory is based on entirely inadequate evidence and must be rejected. Bradbury (1985, 71-79) argues that Welsh archery has been given inordinate prominence because of the influence of Giraldus' writings, combined with the mistaken belief that there is little evidence for archery in 12th and 13th century England. In fact, there is evidence for the widespread use of the bow, particularly in warfare, in Anglo-Norman England and there is little to suggest that Edward I ever used Welsh archers to teach the English how to use the longbow (Prestwich 1972, 95-97, 109-112; Prestwich 1988, 485). There is no evidence that the longbow was peculiar to Wales in the 12th and 13th centuries, still less that it was invented there. Indeed, to the writer's knowledge, no medieval longbow has ever been found in Wales. Giraldus himself never refers to longbows being used by the Welsh; he describes Welsh bows as:

> "not made of horn, nor of sapwood, nor yet of yew. The Welsh carve their bows out of the dwarf elm trees in the forest. They are nothing much to look at, not even rubbed smooth, but left in a rough and unpolished state. Still, they are firm and strong. Not only could you shoot far with them, but they are also powerful enough to inflict serious wounds in a close fight" (Thorpe 1978, 112).

Bows from Waterford

On the basis of historical evidence alone, the suggestion that the longbow was invented in Wales is untenable and archaeological evidence makes this even clearer. Bows are rarely found on excavated sites but excavations in the town of Waterford have produced one complete bow and fragments of six others (Fig. 3). All are simple yew bows dating between the mid-12th and mid-13th centuries, and they provide one of the first opportunities to look in detail at actual bows of this crucial period (Halpin 1996).

At first glance one thing seems clear: the Waterford bows are not longbows. The only complete example is 125 cm long and the other surviving bowstaves were probably of much the same length. The arrowheads found with the bows are as strongly military in nature as the Dublin arrowheads, so it is impossible to argue that these bows were for hunting and that longer bows were used in war. These are military bows and, what is more, most of them seem to be Anglo-Norman. Indeed, it is not beyond the bounds of possibility that some could be the actual bows used by Giraldus' Welsh archers in 1170. This cannot be proved but the Waterford evidence surely demonstrates that Anglo-Norman archers of the late

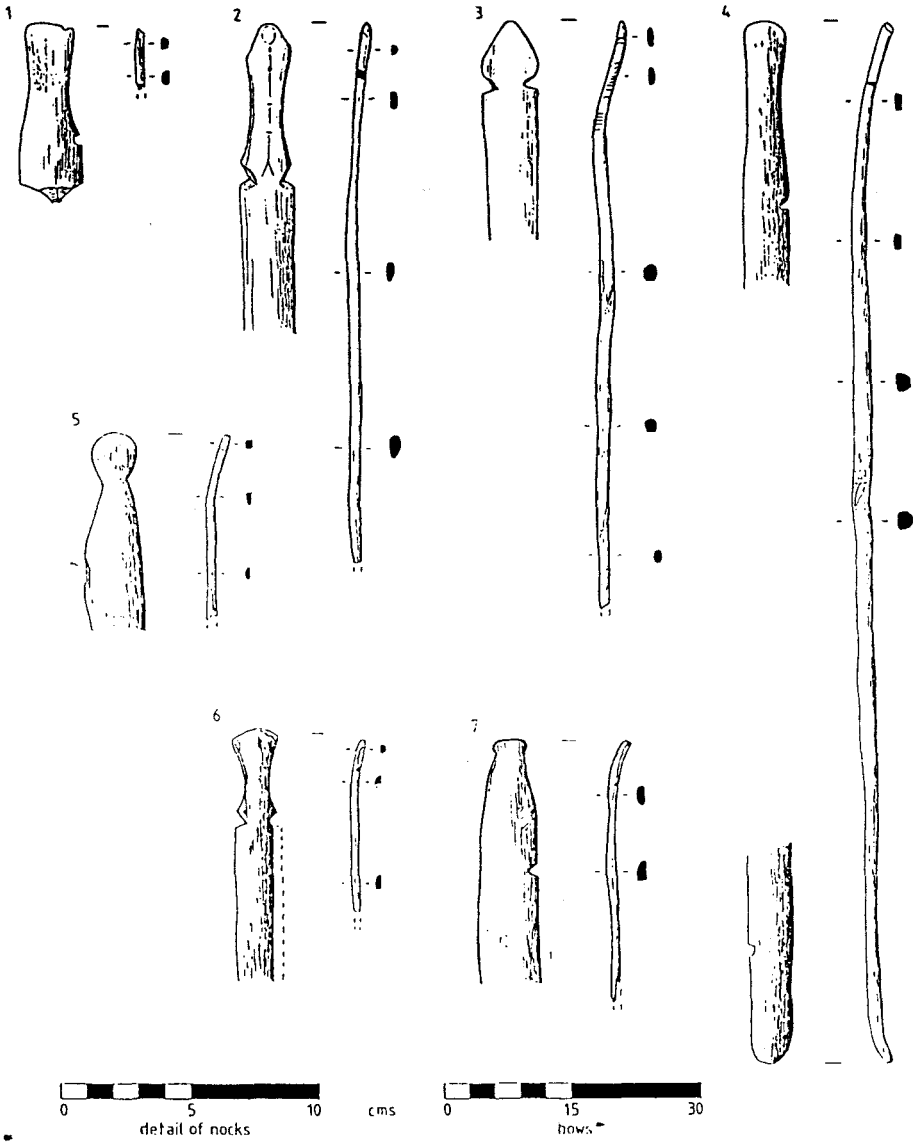


Fig. 3. - *Bows from Waterford city (after Hurley and Scully, 1996).*

12th and early 13th centuries were not using bows which would be recognised as longbows.

However, to say that the Waterford bows were not longbows begs the question: what is a longbow? Much confusion has been caused in earlier literature by the mistaken assumption that the longbow is a distinct type of bow, qualitatively different from other wooden self-bows. In fact, the bows from Waterford are essentially identical to the later medieval longbow in all respects except length. Some even display a technique of manufacture characteristic of late medieval longbows, in which most of the stave consists of heartwood, but sapwood is retained along the back (i.e. the outside bend of the bow, facing the target); the strong and resilient heartwood gives the bow its strength and resistance to compression while the elastic sapwood on the back prevents the bow from breaking under the stress of bending (this feature is also present on the 10th century Ballinderry bow). Any attempt to distinguish the longbow from other wooden self bows purely on grounds of length must always be entirely arbitrary and ultimately unsustainable. Rather than treating "longbows" and "ordinary" wooden bows as two separate species, it is more helpful to see the wooden bow as a single type, within which length (like other characteristics) was a variable factor, depending on circumstances.

Bows and armour

The evidence suggests that in Hiberno-Norse and Anglo-Norman Ireland shorter bows were in use alongside what we might recognise as "longbows". This was not because longbows were unknown – we have already noted a perfect longbow at Ballinderry in the 10th century. Rather, it was because their makers chose not to make these bows particularly

long. This may tell us something about the conditions of warfare at the time, and specifically about the quality of armour and the prevalence of its use. Since the force of a bow depends largely on its length, the Waterford bows must have been somewhat less powerful than a typical late medieval longbow. Nevertheless, they may have been quite efficient against chain mail.

In the 14th century chain mail was largely replaced by plate armour, and this may have been due in great measure to the impact of the armour-piercing arrowheads noted earlier. These arrowheads had long been in use (since the mid-10th century in Ireland) but if, as seems likely, there was a major increase in the number of archers in many European armies in the later 13th and early 14th century, they would have became a much more serious problem. Plate armour would, in most cases, have been an effective defence against such arrowheads, fired from bows of the type found in Waterford (Jones 1986). In turn, it may well be that the increasing use of longer, more powerful bows – what we would recognise as "longbows" – in the 14th and 15th centuries was a response to the more widespread use and improving quality of plate armour.

Alongside these changes in the form of bows, there were also developments in the forms of military arrowheads. In England, the old, long and slender armour piercing heads (e.g. Type 7 above) were largely replaced by newer forms in the 14th century. Two of these newer forms are represented in Ireland, reflecting two different responses to the challenge of plate armour. One response was a thicker, squatter armour-piercing type (e.g. Fig. 4: Type 8) which was strong enough to penetrate plate armour, when fired with sufficient force. The second response was quite different – a relatively light, barbed head (e.g. Fig. 4: Type 8) which clearly was not intended to penetrate armour at all, but was probably used, as Payne-Gallway (quoted in Pratt 1986, 201) suggested, "to harass an enemy, especially his horses, at a distance beyond the reach of heavier war arrows". While both these types are represented in Ireland, they are so far only known in very small numbers and are not nearly so common as in England and elsewhere in Europe. This is a matter of some interest, in view of suggestions from other sources that plate armour was never widely used in later medieval Ireland (see Halpin 1986). Unfortunately, because of a general scarcity of stratified later medieval archaeological deposits in Ireland, arrowheads of this period, of any type, are rare and little can be said with confidence about the popularity of individual types.

The late medieval period (c.1350-1600)

The 14th century saw the beginning of the great age of the English longbowman, whose full military potential was revealed in France during the Hundred Years' War, which began in 1337. Huge numbers of archers were employed and the firepower of massed bodies of archers was decisive in most English successes of the War, notably at Crecy and Agincourt. Inevitably these developments affected Ireland and this can be seen from the mid-14th century on two levels. The Anglo-Irish government made repeated efforts to encourage the use of the longbow among the colonists, clearly with the aim of developing an entire class of archers on the English model. But a more immediate response was to make use of English archers for the defence of the colony. From the 1340's onwards the chief governors of the colony tended to be provided with retinues of English troops paid for by the English exchequer. In the later 14th century these usually accounted for at least 65%-75% of the entire retinue and for most of the 15th century the royal army in Ireland was composed almost exclusively of archers.

Efforts to encourage archery

A centralised royal army could only achieve a limited amount in medieval Ireland, however, and the Anglo-Irish colonists were aware of the need to provide for their own defence. Not surprisingly, they increasingly emphasised archery and the Irish parliament of 1460 must have expressed contemporary perceptions in stating that:

> "the defence of the English nation of this land from the danger and malice of the Irish enemies of the same land rests and depends on English bows, which to the said enemies give the greatest resistance and terror of any weapon of war used in the said land" (Berry 1910, 647-649).

The later medieval period saw repeated legislative efforts to encourage the development of a large pool of proficient archers among the colonists. This reached a peak in the later 15th century when several parliaments passed laws (Berry 1910, 647-649; Berry 1914, 293-298; Vesey 1765, 48) requiring, among other things:

- that every man of the colony provide himself with a longbow and arrows;
- that every lord or large landowner provide bows and arrows for his servants and maintain a fully equipped mounted archer for every 20l. of lands or property held
- that every town of more than three houses erect a

pair of butts at which the inhabitants were to practice archery on each feast day between March and July.

The supply of longbows was a recurring problem. In 1460 parliament noted that the colony was "very nearly destitute" of bows and a law passed in 1473 (and re-enacted in 1495 and 1516) compelled merchants importing goods from England to bring with them longbows for sale in Ireland, in proportion to the value of their merchandise (Morrissey 1939, 99). The effect of measures such as these is hard to gauge; many of them echo previous enactments in England itself and their introduction in Ireland may have been a more or less perfunctory operation. It is clear that they did have some impact; we have records of archery butts in Dublin, Waterford, Drogheda, Kilkenny and other towns, while the act compelling merchants to import longbows was actually enforced up to the late 16th century, when complaints were made that it was being abused (Calendar of the Carew Mss 1575-88, 401). As shall be seen, however, there are indications that archery was more widely practiced in Anglo-Irish towns than in the surrounding countryside.

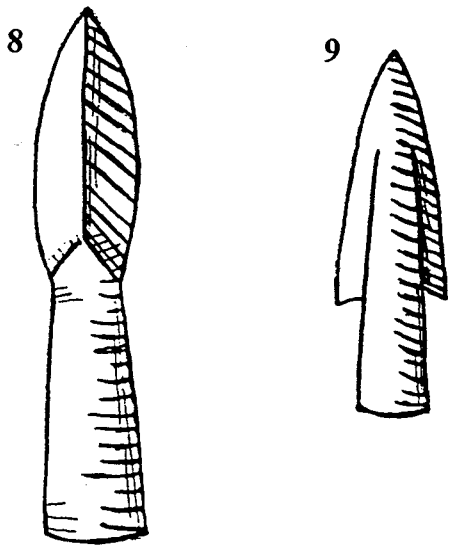


Fig. 4. - *Later medieval Irish arrowheads, Types 8 and 9.*

Limited adoption of archery

In the late 15th and early 16th centuries the earls of Kildare as chief governors tended to provide their own retinues, composed mainly of native troops (gallowglass and kerne) rather than archers (Ellis 1986, 54-55). This may have been largely for political, rather than military reasons but it nevertheless raises the question of how successful were the efforts to foster archery among the Anglo-Irish colonists. It seems that in the relatively stable and Anglicised heartlands of the Pale – essentially the area along the east coast between the towns of Dublin and Drogheda – a tradition of yeoman archery on the English pattern may indeed have developed. Elsewhere, however, it seems likely that a distinctively Irish military pattern of horsemen, gallowglass and kerne predominated (Ellis 1986, 55).

Even in the heyday of English military archery, there is little evidence of archery having been used to decisive military advantage in Ireland. Two main reasons can be advanced for this failure to exploit the full potential of the longbow. Firstly, the colony was never able to assemble the large numbers of trained archers needed to use the longbow effectively. The attempt to develop within the colony a corps of peasant archers on the English model largely failed, with the exception of the Anglicised core of the Pale and, perhaps, some of the larger towns elsewhere. Even more fundamentally, the pattern of warfare in late medieval Ireland was such that there were very few pitched battles in which classic English archery tactics could be employed.

Gaelic Irish archery

The use of the bow by the Gaelic Irish is first noted in 13th century Irish annalistic sources, and increased in the later medieval period. Both the common footsoldiers ("kerne") and the "knaves" (i.e. pages) of the gallowglass tended to be armed with bows, as is noted by the English writers Nowell in the 1480's, Sentleger in 1543, Spenser in 1596 and Dymmok in c.1600. In the 16th century there is also evidence for the use of the bow in Ireland by Scottish mercenaries. The effectiveness of these Scottish archers was most clearly seen in 1584 when a force of 2400 Scots, of whom 1100 were archers, landed in Ulster. Lord Deputy Perrot noted soon after that "the Scotts bowmen have done more hurt in the skirmishes then our shott have done" and such was the Scots' impact that it prompted the English administration into efforts to reverse the trend towards the abandonment of archery in the army and among the general populace (C.S.P.I. 1574-85, 524; McNeill 1943, 15). Scottish archers also figured prominently in the great Ulster wars of the 1590's, while native Irish archers were also employed.

The end of military archery

The military significance of archery began a slow decline from the early 16th century in the face of

competition from the gun. The main advantage of guns was that they could be used effectively by almost anyone with little or no training whereas military archery, to be effective, required highly skilled men and in large numbers. Maintaining this large pool of trained archers was a constant struggle for English kings, but Henry VIII made strenuous efforts throughout his reign (1509-47) to retain archery as a major component of his armies and it was probably not until the reign of Elizabeth (1558-1603) that guns replaced the longbow on a large scale (Hardy 1986, 133-35; Bradbury 1985, 155). In Ireland the fate of archery again followed the English pattern, in broad terms, as the use of guns increased slowly but steadily from the end of the 15th century. The 1570's was the crucial decade in which the longbow was replaced by the musket in English forces in Ireland (Falls 1954-56, 104). Ironically, the native Irish (and their Scottish allies) continued to make military use of archery to the end of the 16th century and even, in some cases, into the 17th century. Nevertheless, by the end of the 16th century the longbow had effectively been abandoned as a weapon and would not be used again in warfare in Ireland.

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