Longbow Origins Before Crecy - Was It Really Welsh?

A paper presented by Upper Warden Tony Kench to the Worshipful Company of Bowyers, London, 19.11.14

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Legend has given high prominence to Welsh archers for forming the backbone of the English armies in its victories over the French at Crecy (1346), Poitiers (1356) and Agincourt (1415). However, with more accurate historical records available these days, it turns out that the factual numbers are not quite so romantic. There was a sizeable Welsh archer presence at Crecy, but not a majority: Edward III's army totalled about 13,500, of which about half were archers; 4,500 English and 2,000 Welsh. At Agincourt in 1415, following Owain Glyndwr's Welsh Revolt of 1400-1410, not many Welsh were taken to France at all: of the 6-7,000 archers in Henry V's army at Agincourt, recruitment records show that only 400 were Welsh.

This paper sets out to explore how the legend arose, what we know of archery in mediaeval Wales, and most significantly, what we can trace of how and when the 6' longbow came into being as the dominant English infantry weapon of the 14th and 15th centuries. It ends with a footnote on how the dates fit with what we know of the origins of the Bowyers' Company.

The Welsh Legend

Much of the popular Welsh legend seems attributable to Shakespeare, who gave a prominent part in 'Henry V' to Captain Fluellen, the Welshman. Fluellen reminds the King of the brave battles in France of Edward the Black Prince (at Crecy and Poitiers), and of the good service of the Welsh, who 'wore leeks in their Monmouth caps', as did the King himself. The King confirmed that he did indeed wear a leek himself on St David's Day, having been born in Wales.

Shakespeare also makes much fun of Fluellen as a garrulous Welsh windbag, obviously a popular stereotype of the time, but does have the King acknowledge that 'there is much good in him'.

Archery in Medieval Wales

Going back in time, what we know of archery in Wales prior to the 13th century comes almost entirely from the writings of Giraldus Cambrensis, Gerald of Wales, an Anglo-Norman nobleman whose family had settled in Wales and who wrote extensively in the 1180s about his travels in Wales and his observations of the Welsh. His observations were quite trenchant, noting their love of rhetoric, alliteration and word-play (even back in the 12th century) and their tendency to sing whenever they met, also describing them as impetuous and volatile, lacking in loyalties, and ferocious fighters, often with each other. As we shall see later, this made them good potential mercenaries, although sometimes unreliable.

Giraldus also found archery quite widespread in South Wales (only South, not North) and described in detail the bows that the South Welsh used. They were made of wych elm (not yew or horn). They were not very large, they were unpolished and crude but stout of construction *(Fig.1)*, not calculated to shoot to a great distance but able to inflict severe wounds in close fighting. They were suited to the wooded Welsh terrain, where the main fighting tactic was a quick charge followed by a rapid retreat into the woods, in order to trap their pursuers in a short-range ambush.
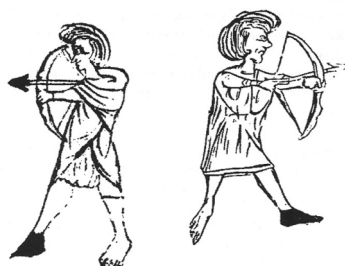

Fig.1: a 13th century woodcut of South Welsh archers.

There was no doubt that the South Welsh bows were powerful at short range; Giraldus relayed accounts of arrows penetrating 'a hand's width deep into an oak door', 'through a man's armour and thigh, into his horse' and 'through an armoured horeman's hip, into his saddle'.

Archery Elsewhere in Europe

Bows and arrows had of course been commonplace throughout most of Europe, although curiously not among the Celts of North Wales, Ireland or Scotland. The Anglo-Saxons used them mainly for hunting, it being generally thought that battles should be fought man-to-man. The Vikings had quite powerful bows, and carried them as weapons on their longships. And the Normans of course brought bows with them to Hastings in 1066, using arrow-storm tactics for harrying, but as can be seen from depictions on the Bayeux Tapestry, their bows were of no great strength.

The Anglo-Normans did however persist with the use of bows in their military campaigns. It is recorded that they took bows with them on their incursions into Wales in 1136, and their arrow-storming tactics played a major role in defeating the Scots in 1138 at the Battle of the Standard at Northallerton, when the Scots were described as 'running away stuck like hedgehogs'. Again, this indicated that their bows were not very strong, and not lethal at any distance.

The 12th Century Normans in Wales

The Anglo-Normans initially (as with Scotland, and as with the Romans and Saxons before them) had little interest in occupying Wales. The Norman Kings granted the Welsh border lands (the Welsh Marches) to Lordships based in Chester, Shrewsbury and Hereford, the royal brief being more or less to 'keep the Welsh out, and if there's anything there you want to take, feel free'.

This did result in the Marcher Lords penetrating into Wales, but only in the South, where they succeeded in semi-occupying the whole of South Wales, from Chepstow right across to Pembroke *(Fig.2)*. The South Welsh became quite friendly, and turned out to be more than happy to join the Normans in fighting against the North Welsh, whom they really didn't like; there was at the time no concept whatsoever of Welsh unity or nationhood. The Anglo-Normans however made little headway in mid-Wales and no headway at all in North Wales.
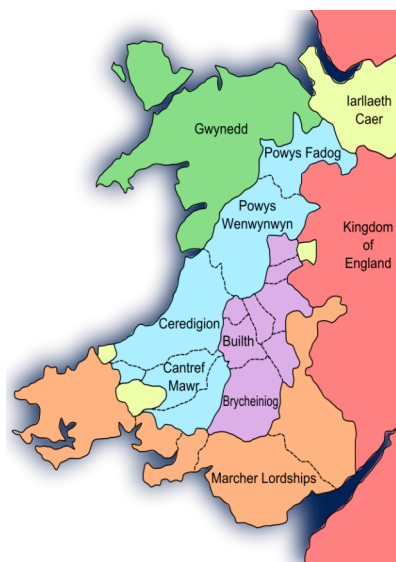

Fig.2: Norman Marcher Lordships in 12th century South Wales.

An interesting observation arose about Welsh archery, also from the writings of Giraldus, concerning the Norman invasion of Ireland 1166-85, about which he wrote in 1188. Richard de Clare, the Anglo-Norman Earl of Chepstow, nicknamed 'Strongbow', was invited by a deposed King of Leinster (Ireland at the time comprised about 90 kingdoms, each with a king) to go and help him recapture Dublin, which he did in 1170, and stayed to expand the Norman presence right across Ireland. There is a tomb and monument to Strongbow in Christ Church Cathedral,

Dublin. In 1174 Raymond Fitzgerald, a fellow Norman nobleman from Wales, joined him in Ireland, bringing 300 Welsh archers with him, who were obviously held in high regard. Since the local Irish tribes fought only with spears and stones, wearing little armour, the short-range Welsh archers could be quite deadly, and they were kept on with Fitzgerald in Ireland successfully for three years.

13th Century Background: the Llewelyn Uprisings and the Welsh Wars of Edward I

The mid-13th century saw the beginnings of Welsh nationalism. In 1240 Llewelyn, King of Gwynedd in the North, made a deathbed claim to all of Wales (but without occupying the South). In 1265 his grandson Llewelyn ap Gruffydd stepped into English politics with support for De Montfort, and made a fresh claim for Welsh unity. In 1267, out of weakness, Henry III agreed a settlement recognising Llewelyn as 'Prince of All Wales' (although still not occupying the South).

On becoming King in 1270, Edward I flatly rejected Llewelyn's claim to all of Wales, and set about putting an end to it. In 1277 he led an army of 6,000 English and 9,000 South Welsh which invaded and occupied the North Welsh coast, while making an alliance with Dafydd, the ruler of mid-Wales. Llewelyn retreated to his home territory of Gwynedd and was forced to sign a treaty.

But in 1282 Dafydd changed sides; Llewelyn had fresh support and began another rebellion. This time Edward I assembled three English armies for a heavy three-pronged invasion from the South, the Centre and the North; Llewelyn was defeated and killed. Edward I immediately began building his famous ring of strong castles around Gwynedd, to ensure future control. Several of these grand castles from 1283 still stand, including Harlech *(Fig.3)*, Caernarfon *(Fig.4)* and Conwy *(Fig.5)*.

Fig.3: Harlech Castle   *Fig.4: Caernarfon Castle*   *Fig.5: Conwy Castle*

A further small North Welsh rebellion took place in 1295, led by Madog ap Llewelyn, which was notably put down by an English army including large numbers of archers raised from the English border counties plus Lancashire, Staffordshire and Nottinghamshire, which inflicted heavy losses on the North Welsh, and as we'll see, marked a significant new development in the role of archery in the English Army.

Archery Evolution during Edward I's Welsh Wars

During the 1277 and 1282/83 wars, the bow had played a secondary role. There was one elite English archery corps in the King's bodyguard, the 'Macclesfield 100' from Cheshire, and a corps of 800 from Gwent and Crickhowell. But the 1277 general infantry of 15,000, while including 3,600 archers, had only 16,000 arrows between them; the bow was clearly not then an important weapon. The King did have in his bodyguard a corps of 106 mounted Gascon crossbowmen, who had a rather more serious armoury of 170,000 bolts; right through to the 1300s, crossbows were regarded as much more accurate up to their range of between 50 and 100 yards.

For 1295, however, Edward I introduced his new 'battle line', which for the first time interleaved archers with cavalry: the tactic being to arrowstorm the enemy at distance first, driving them into disarray, then ride them down with the cavalry (the North Welsh, it will be remembered, only carried spears). It appears that the springier self-yew bow began to be introduced at this time, and Edward saw for the first time the potential winning effect of a mass front-line arrowstorm with large numbers of archers, at least against a lightly-armoured foe.

And with an eye to his slightly precarious funding situation, after building all those castles, he also saw that a large army of archers was much more cost/effective than large numbers of men-at-arms.

Edward I's Ambition for a More Professional Army

Now that he had a coherent military strategy, Edward was increasingly frustrated by the variable quality of troops that were recruited through the traditional 'Commissions of Array' whereby each area of the country was required to produce a set number of soldiers of various levels according to their wealth, for example:

- £15 value of land: bring horse, armour, sword
- £10 value of land: bring armour, sword, knife
- £2 value of land: bring sword, knife, bow, arrows
- Under £2: bring knife, bow, arrows.

Edward was obliged to continue the arrays to swell the numbers and to ensure enough men-at-arms, but he also introduced indentures, central contracts whereby troops were directly engaged and directly paid, to meet more specific requirements. For interest, typical rates of pay were, by comparison to general labour rates:

- Crossbowmen	4d per day	*Smiths, Masons*	*6d per day*
- Cheshire Archers	4d per day	*Carpenters*	*4d per day*
- Archers, Sailors	3d per day	*Thatchers*	*2½d per day*
- Knifemen, Labourers	2d per day	*Unskilled Labour*	*2d per day*

Edward I brought a thorough new approach to building a professional army, including for the first time a planned army structure with consistent-sized units, professional troop leaders and clear chain-of-command discipline. He also brought a wide-ranging military vision for his new integrated multi-force battle line strategy, with well-organised supply lines by land and sea, and bold and integrated planning of campaigns. This was a whole new step-change in discipline for the English Army.

Attention Turns Toward The Scots

Having sorted out the Welsh, Edward could turn his attention to the Scots. He had been out of the country when William Wallace defeated the English at Stirling Bridge in 1297 (it seems the English knights temporarily regained control of strategy and chose to charge in first, with disastrous results). There was therefore a score to settle.

At the Battle of Falkirk in 1298 Edward I's new battle line strategy was put into effect with total success: the English arrowstorms broke and scattered the largely unarmoured Scots pike formations, allowing the cavalry to ride them down. Wallace was captured several years later in 1305, taken to Smithfield and hung for treason; his monument there is quite prominent.

Array numbers and wage rolls survive for Falkirk in 1298 and are interesting. 14,500 troops were engaged from the English border counties plus Yorkshire, Derbyshire, Nottinghamshire and Cheshire, including 2,500 archers; and 10,500 Welsh mercenaries were contracted, including 2,000 archers. However, the Welsh troops were not used in the battle; apparently there had been some brawling with the English troops, so the victory at Falkirk was entirely English.

Dark Period 1300-1330

The period from 1300 to 1330 was a dark period for English military history. Edward I became less effective in his declining years, and the reign of Edward II (1307-27) was disastrous: it led to defeat by the Scots at Bannockburn in 1314, when once again the recalcitrant knights seem to have regained control of strategy, and having learned nothing, charged in first and were cut down by the Scots pikemen. Archers were present on the English side, but barely called into service.

The paradox of this period, 1300 to 1330, is that it appears to be precisely when the full-sized 6' longbow emerged to its full heavy-weapon potential. Edward III was only 14 when Edward II died in 1327; his mother Isabella and her lover Mortimer acted as regents until Edward claimed the throne at the age of 17 in 1330.

We'll pick up on Edward III again shortly, but meanwhile let's look at the extent of the step-change that took place in the bow itself during this period.

The Longbow's Evolution

Prior to 1300, bows were invariably depicted as being 4'6" to 5' in length, and drawn only to the chest *(Fig.6)*. This was suitable for short-range shooting and disruptive arrowstorming, but not capable of delivering heavy lethal arrows with any great accuracy or distance.

The adoption of higher-performance self-yew wood bows was an evolutionary step: Court records of the time remarked on yew wood as a rarity in the 1270s, but more commonplace by the 1290s, undoubtedly making Edward I's 1295 and 1298 English Army arrowstorms more effective.

But only after 1310 do there start to be any records describing 6' bows with yard-long arrows; a Court crime record describes one used in a murder case in 1314. Depictions of 6' bows drawn to the ear, in full-scale longbow fashion, appear in the Luttrell Psalter of about 1330, and most graphically and accurately in the Smithfield Decretals manuscript of 1340 *(Fig.7)*.

Arrowheads surviving from prior to 1300 have sockets 0.3" to 0.35" wide; arrowheads from the longbow era, 1330s onward, have sockets 0.45" to 0.5" wide, designed for larger and heavier arrows and warheads. It is clear that a major scaling-up of bow design took place between 1300 and about 1320, bringing it up to a weapon capable (with strength and practice) of shooting much heavier arrows with much heavier and more lethal warheads.

Fig.6: Pre-1300: bows 4'6 to 5' long, drawn to the chest.

Fig.7: Post-1320: longbows 6' long, drawn to the ear.

The longbow's step-change period can thus be placed with reasonable confidence as being between 1300 and 1320. Imports of yew bowstaves increased; an order for 2,000 from Spain is recorded, and others from the Baltic. Critically, by the early 1330s the 6' bow with 36" arrow had become adopted as the military standard for all future Crown orders.

Edward III Takes Power, and Revamps the English Battle-Line

The young Edward III became King in 1327 at the age of 14, but his mother Isabella and her lover Mortimer effectively ruled until 1330, when Edward insisted on taking over. He was already fully immersed in military weapons and strategies, and is certain to have already become familiar with the new longbow during the 1320s. He will have recognised it as not only a lethal arrowstorm weapon but also now an accurate direct-shot weapon, out-ranging the crossbow; and most significantly, he will have recognised its entirely new power as an armour-piercing weapon capable of stopping the French knights, on whom his sights were set.

Edward immediately set out a revamped Battle Line strategy for the English Army, interleaving longbowmen with a shield wall of dismounted men-at-arms. This battle-line could be deployed in a wide open-field formation in what was referred to as a 'herce': a line with spikes, like the

farmer's harrow, as used at Crecy; alternatively, for more contained situations, more longbowmen could be positioned on forward-slanting wings, in order to drive an enemy into the funnel and shoot them from the sides. Cavalry would still be present, but held in reserve at the rear, to protect the flanks or ride the enemy down as required.

Edward and his commanders also spent time defining what field positions would be most advantageous to adopt where possible, including having a wooded area behind them for protection from the rear, and having some sloping ground in front of them, ideally with a stream or marsh at the bottom in which the enemy could become bogged down and formations disrupted. They also adopted a deliberate tactic of digging disguised pot-holes and trenches in front of their positions, to trap charging enemy cavalry (a trick apparently learned from the Scots).

Early Victories by Land and Sea

A battle with the Scots at Halidon Hill (near Berwick) in 1333 gave an excellent opportunity to try out the new battle line, and it worked to devastating effect. The English contrived to get the lightly-armoured Scots pike formations to advance towards them over marshy ground, and the longbows were easily able to confine them and cut them down in large numbers. 8-9,000 Englishmen had taken on 13-14,000 Scots, and dispatched two thirds of them.

Edward laid fresh claim to the French throne in 1337. He quickly begun hostilities on the continent, initially in a joint campaign against the French in Flanders. As part of that, a sea battle was fought between the English and French fleets at Sluys, on the approaches to Bruges.

Fig.8: English merchant ships had archery 'castles' added.

The English did not have much of a navy as such; they had commandeered 150 'cog' merchant ships to which wooden 'castles' had been added fore and aft *(Fig.8)*, from which archers could shoot down into enemy ships. The English formed packs of three, with archers attacking from the wing ships and men-at-arms on the centre ship to board and finish off - effectively replicating at sea their new battle line formation on land. The tactic was a total success: the whole French fleet of 200 was apparently put out of action, with only two English ships lost. France did not recover any presence on the English Channel for another 30 years, giving Edward III the freedom of the sea.

Stage Set for Main French Campaign

One of Edward's first acts after claiming the French throne was to place an order via the King's Artillier in 1338 for 96,000 'yard-long steel-head arrows'. This was followed in 1341 by a massive series of orders placed on multiple English cities to supply 9,100 longbows and 380,000 arrows.

A small advance guard army was taken to Brittany in 1342, and fought the French at the Battle of Morlaix, a coastal town near Roscoff. Again the English managed to adopt an ideal positioning, at the top of a slope with a stream at the foot, and with a disguised trench dug in front of their line. The result was exactly the same as at Halidon Hill, a devastating victory for the longbow.

It was with some confidence, then, that the main English Army embarked for France in 1345. The army was 13,500 in total, half of it being the best and ablest longbow archers: 4,500 English and 2,000 South Welsh. All were provided with horses, to give the army high mobility. The objective was to land in Normandy then cross to take Calais; the Battle of Crecy was fought en route.

Crecy 1346: the Longbow's Finest Day

The battlefield at Crecy (which the Bowyers' Company visited in 2012) was a fairly open space, some 2,000 yards wide *(Fig.9)*. The English again adopted a favourable position, along the crest of a slight slope, strung out in its 'herce' formation of alternating longbowmen and men-at-arms (there are varying accounts of the battle, and this one seems as plausible as any).

Fig.9: the Crecy battlefield, as visited by the Bowyers in 2012.

Slightly wary now of the English archers, the French first sent forward their Genoese crossbow mercenaries, some 4-6,000 of them, with the objective of wiping out as many English as possible early on. The crossbowmen had a lethal range of up to about 80 yards, and took up an initial position 100 yards from the English, in line across the field. Unfortunately for them they quickly found out that the longbow now had a lethal range of well over 100 yards. The Genoese line was shattered; many were killed, and the rest made a run for it, colliding with and impeding the French knights advancing behind them, which caused great chaos in the French ranks.

Rather than pause and re-form, the French knights, heavily conscious of their chivalric obligations, proceeded to charge the English line in random haphazard waves. They were shocked to find that the longbows could now penetrate French armour, and could also down the horses. Those that did get through to the English line encountered the herce line of an armoured 'shield wall' that held its discipline and stoutly held them out.

The size of the French army at Crecy was not well documented. The only casualties they counted were among their knights and esquires, at least 1,500 of whom were killed on the battlefield. The total of French casualties will have been very much higher, many thousands, whereas losses on the English side were no more than 300, maybe only 100. It was a massive English victory.

Fig 10: the Monument at Crecy to the heroic death of the blind King John of Bohemia.

Fig.11: the insignia of King John of Bohemia, adopted out of respect by the Prince of Wales.

The main monument on the Crecy battlefield is to Blind King John of Bohemia, Duke of Luxembourg, who met a famously heroic end *(Fig.10)*. 'Cette croix', the monument reads, 'rapelle la fin heroique de Jean de Luxembourg, Roi de Boheme, mort pour La France le 26 Aout 1346'. Hearing the battle was not going well, King John instructed two of his knights to lash his horse to theirs and he to them, so that they could ride into battle together for the glory of France. They did of course promptly meet their glorious end. It was the ultimate manifestation of French chivalry, but French chivalry had had a bad day: it had lost to a smaller army with superior

weapons and tactics - and it had lost to an army of common men. That was not supposed to happen.

As a postscript, Edward III's son, Edward the Black Prince, heard of the chivalry of Blind King John, and as a mark of respect adopted John's insignia as his own: the three white feathers with motto 'Ich Dien', which remains to this day the insignia of the Prince of Wales *(Fig.11)*.

So, Was The Longbow Really Welsh?

In a word: no. The Welsh archers at Crecy and Poitiers were paid mercenaries, shooting English longbows; no longbows were ever commissioned from Wales. The scaled up 6' longbow was developed in England, between 1300 and 1320, in a large-scale English Army context.

The draw-weight power of the small but strong South Welsh bows must have been one of the influences that inspired a scaling up of the English bow; quite possibly it was picked up by the elite Cheshire archers while on service in Wales with Edward I.

The adoption of the springier self-yew bow stave in the 1290s (not a Welsh thing) will have improved the efficiency of Edward I's English Army arrowstorms, and must also have been a great facilitating factor in scaling up to the 6' longbow.

The young King Edward III will have seen the new longbow in the 1320s and will have seen in it the power that would enable him to take on the heavily armoured French knights, and the weapon around which he could build his battle strategies, to give the longbow its legendary battle-winning success.

Footnote: How Many Longbow Makers Were There in London

From the documented orders of the King's Artillier in 1341 for 9,100 bows, we know that 2,500 of them were ordered from London, together with 24,000 arrows (1,000 sheaves).

We know the price the King's Artillier was paying for bows at the time, 12d each, and for arrows, 12d per sheaf. We can thus estimate the total value of the order at about £175.

Bowyer Liveryman and longbow-maker Richard Head has consulted with colleagues at the Craft Guild of Traditional Bowyers & Fletchers, and after detailed calculations they estimate that, faced with a large order, it should be possible to make a longbow with a total of a day's work, and also to make a sheaf of arrows with a day's work (20 minutes per arrow). On that basis the total order would have taken 2,500 man-days for the bowmakers and 1,000 man-days for the arrowmakers.

There is no record of the actual order date or the delivery schedules, but with the French campaign assembling the following summer it seems reasonable to suppose that the bows would have been required within some 4-6 months. On that basis, there would have been 20-30 bowmakers and 8-12 arrowmakers working on this order alone.

We have no comparable records of bowyer numbers against which to validate this estimate; 1341 predates the existence of the Bowyers' Company and predates any other known numeric records. For some comparison, it is documented that in Edward II's time, up to 1327, there were 5 bowmakers active in York, and that this rose to 17 bowmakers in York later in Edward III's reign, when York served as the principal bowmaking production centre for the Northern English army, which was on permanent watch against the Scots.

A note has also emerged during researches for this paper that in 1304, 130 bows had been supplied from London to Edward I's campaign in Scotland, indicating that bowmaking existed in London in some organised form by 1304, but that the numbers were very small.

Combining this numerical information with what we already knew from Barbara Megson's History of the Company, we can assemble an updated timeline of earliest bowmaking in London, as follows:

1293   First mention of a London bowmaker: Ivo le Bowyere (in a court record)
1304   130 bows supplied from London to Edward I's Scottish campaign
1311   Several 'forein' (non-London) bowmakers listed in London Letter Books
1319   One bowmaker active enough to be listed in the London tax records
1327   One London bowmaker rich enough to have his will registered
1341   2,500 bows ordered from London (as above): 20-30 bowmakers active
1351   No mention of a Bowyers' Company in a City election summons
1363   First mention of the Bowyers' Company, on a City taxation list.

Again it is evident that a step-change in longbow-making activity took place with the Crown orders placed after 1330, in the lead-up to Edward III's French campaign. It seems highly likely that the Battle of Crecy in 1346, and particularly the Black Prince's subsequent victory at Poitiers in 1356, which apparently received greater publicity back at home, will have led to the proper recognition of bowmaking as a craft, and will have led to the formation of the Bowyers' Company shortly thereafter, some time between 1356 and 1363.

Tony Kench, Upper Warden
The Worshipful Company of Bowyers
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Bibliography

Of the many dozens of books on various aspects of the ground covered in this paper, the most useful and factual sources for this paper were found to have been:

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The recent books by Richard Wadge are particularly valuable for the many detailed factual documents he has researched regarding arms and armies of the period.