

HOW WELL PREPARED WAS JAMES IV TO FIGHT BY LAND AND SEA IN 1513?

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Introduction

King James IV began and ended his reign (1488-1513) on the field of battle. His death at Flodden with many of his nobles is one of the few things popularly remembered about him, and the apparent rashness of picking a fight with the English at that time has distracted attention from more solid achievements.¹ A great and unnecessary disaster Flodden certainly was, and many historians have inevitably sought to explain how and why James manoeuvred his way through international negotiations and politics to make a stand on a hill top in northern England on 9 September 1513 against an English army led by the Earl of Surrey. This contribution will explore the wider context of Flodden from a Scottish perspective, how prepared the Scots were to undertake military campaigns in 1513, and whether James deserved to be defeated and lose his life.

James IV: An Aggressive King

Unlike many other Scottish monarchs James IV was not obviously faced for most of his reign by a hostile England, intent on imposing its will through force of arms. In so far as England was a threat it was because James made it so. Having survived the dangers of the civil war that had propelled him to the throne as an inexperienced youth, and having wound up the over mighty and troublesome MacDonald Lordship of the Isles in the west, James could turn his attention to his relations with England. This resulted in two raids into the East March in 1496 and 1497. The underlying reason for these expeditions, and the strategy employed, are best explained as a programme to recover Berwick-upon-Tweed. The loss of this border town, last held by the Scots in 1482, clearly rankled with the Scots.²

Berwick was not recovered, but the raids of 1496 and 1497 were a sufficient threat in English eyes that James was offered Margaret, the daughter of Henry VII in marriage, along with a treaty of perpetual peace in 1502. The marriage took place in 1503. This was one of the most

¹ There are two main biographies of James IV: R.L. Mackie, *King James IV*
² R. Nicholson, *Scotland The Later Middle Ages: the Edinburgh History of Scotland volume 2* (Edinburgh, 1993), p. 550; Mackie, *King James IV*, pp. 79 and 83.

prestigious marriages made by a Scottish king and could clearly be seen as a notable foreign policy success. James' strengths as a man of action must have appeared in stark contrast to his father, described, admittedly in a later, hostile Scottish source, as 'never hardy, nor yet constant in battle'.³ Peace with England did not prevent James IV from building up his military and naval resources or, indeed, flexing his muscles in other directions, by sending a naval expedition to Scandinavia in 1502 in support of King Hans of Denmark.⁴ He also went to considerable lengths to advocate a new European crusade, in which he intended to be admiral. His recent biographers have had different views on how serious he was; whether he was a naive romantic easily duped by those, like Louis XII of France who encouraged him with an eye to benefiting from the support of the Scottish fleet.⁵

When in 1513 James was persuaded by King Louis XII of France to invade England in his support the strategy appears similar to that adopted in 1496 and 1497, aimed at isolating Berwick and exposing it to direct assault. That James intended to attack Berwick was an assumption easily made by the English. Queen Katherine of Aragon appeared to believe the town was already threatened in September 1512.⁶ The English never seem to have doubted that the Scots would take Berwick if they could. When Lord Conyers was appointed captain of Berwick and lieutenant of its castle in December 1508 he undertook to hold both against the Scots for two months and then to the utmost of his ability.⁷ On the one hand, this demonstrates English concerns about Scottish intentions; on the other hand it suggests what a tough job it would be for the Scots to take it.

A more detailed analysis of James IV's foreign policies, military and naval achievements, would expose underlying weaknesses and failures. Nevertheless, in 1513 he appeared as an experienced king, successful in war and, as we will show here, with not inconsiderable military and naval

³ R. Lindsay of Pitscottie, *The Historie and Cronicles of Scotland* [hereafter Pitscottie, *Historie*] (Scottish Text Society, 1899-1911), vol., I, p. 207.

⁴ Macdougall, *James IV*, pp. 229-232.

⁵ Mackie, *King James IV*, (e.g. pp. 233, 238 and 274), criticises James as deluded about a crusade, infatuated by maintaining a French alliance, and lacking qualities of leadership. Macdougall, *James IV*, is more sympathetic and sees the king as shrewd and not lacking in foreign policy skills.

⁶ *Letters and Papers, Foreign and Domestic, of the Reign of Henry VIII, 1509-1547*, [hereafter *L & P*], vol., I, no. 1391.

⁷ *The Letters of James the Fourth, 1505-1513* [hereafter *James IV Letters*], ed. R.L. Mackie (Scottish History Society, 1953), no. 209.

resources. Louis XII of France took James and the Scots seriously as a significant ally to support him in his struggle against his enemies, particularly the English.

The diplomatic negotiations between the two kings in 1512-13 indicate that James was offering to invade England in person on behalf of the French and undertake sieges in order to force the English to fight him and thus take pressure off Louis. The Scots were also to provide a fleet to join with the French and deal with the English in the English Channel. In return Louis was to provide James with help for his ships including victualling when they arrived in France, 50,000 francs, artillery, powder and cannon balls. After the war was over Louis was also to help James achieve his ambition to lead a crusade against the infidels.⁸

While James played to win as many advantages from Louis as possible he was also eager to involve others in the struggle against England - the Danes and the native Irish. King Louis also wanted the Danes as allies but was content to leave much of the negotiation to James.⁹ The Danes had significant naval resources which could be contributed to a joint fleet. So keen was James to have the Danes join him and the French that he actually suggested that he would pay for the services of the Danish ships and sent to King Hans, apparently unsolicited, some of the wine, guns and other equipment he had received from Louis in 1512.¹⁰ The Danes, however, declined to take part.

James' plan for war against England evidently envisaged a diversion in Ireland, perhaps involving his fleet as well as local forces. This is presumably what he discussed with Hugh O'Donnell of Tyrconnell, one of the most powerful leaders of the native Irish in Ulster when he paid a visit to Scotland in July 1513. The upshot of James' and O'Donnell's deliberations was that a cannon, drawn by 36 horses, and a culverin moyen, drawn by eight, were given to the Irishman to help him in some exploit in Ireland (see table 1 for an indication of the size of these guns). They took six days to make the journey from Edinburgh to Glasgow. With them were sent two carts with eight barrels of powder, two carts with gunstones, one with pikes, shovels and mattocks and a crane along with the trestles on which the cannon was to be mounted. This suggests that it was really an old

⁸ *Flodden Papers: diplomatic correspondence between the Courts of France and Scotland 1507-1517*, ed. M. Wood (Scottish History Society, 1933), pp. 45, 53-55, 69, 70-71 and 72.

⁹ *Flodden Papers*, pp. xxxviii-xxxix.

¹⁰ *James IV Letters*, nos 506 and 527.

wrought iron gun or bombard which was not capable of being fired from the carriage it was transported on. Twenty workmen were also sent and eight quarriers for under-mining walls, all given a month's wages in advance.¹¹

Carts were sent to Glasgow on 14 August to bring the guns back to Edinburgh again. They took ten days on the road and were thus too late to take part in the Flodden campaign.¹² It is not known if the guns and men actually made it to Ireland or achieved any notable deeds there. Perhaps if James had not been so ruthless in dealing with the MacDonalds he would have had more success in starting a war in Ireland. That clan was already well embedded in the north of Ireland and had considerable military and naval resources. They were also traditional allies of the O'Donnells.¹³

The Scottish Military System

The military system that James inherited was one appropriate for a relatively small and poor country. It depended on the premise that it was the duty of the male population to prepare and equip itself for the defence of the realm. It had its origins in the dawn of Scotland's emergence as a state, and while other institutions and elements of defence were added through time, nothing altered the basic importance of this assumption, which, far from being challenged by the lieges, was a right not to be given up lightly.¹⁴ While in theory it provided a cost free army, the expense of many other things like artillery, ships and specialists was defrayed by the Crown, which increasingly came to rely on taxes for major military exploits. This was the case with the English campaigns undertaken by James IV.¹⁵

The army, or host, consisted of the male population of the country between the ages of 16 and 60, and could be called out to serve for a maximum of 40 days in any one year. Clearly this was not all of the men in the kingdom of the right age, nor would such an unwieldy mass of men have been desired. The size of any army of the period is very difficult to gauge. Don Pedro de Ayala's figure of 120,000 for the host at the turn of the century and the 100,000 given by an English source as the size of the army at Flodden are estimates that can readily be dismissed as exaggerations. The actual size of the army at Flodden has been variously

¹¹ *Accounts of the Lord High Treasurer of Scotland* [hereafter *TA*], vol., IV, p. 527.

¹² *TA*, vol., IV, p. 527.

¹³ D.H. Caldwell, *Islay The Land of the Lordship* (Edinburgh, 2008), p. 79.

¹⁴ D.H. Caldwell, 'The Use and Effect of Weapons: The Scottish Experience', *Review of Scottish Culture*, IV (1988), pp. 53-62.

¹⁵ Macdougall, *James IV*, pp. 146-169.

guessed at by modern historians, but as mustered before the battle was surely no more than the 30,000 men suggested by Mackie – which represents one of the fullest call-outs achieved for a national campaign.¹⁶

Under James IV the Scots were on a relative high in terms of military capability. The king as commander-in-chief was experienced in leading in the field. His role as a 15 year old youth in the rebellion that overthrew his father, James III, may have been little more than as a figurehead, but he was present at the battle of Sauchieburn, near Stirling, 11 June 1488, which brought him to the throne, and he was personally involved in many of the military expeditions of his reign, including the sieges of the castles of Dumbarton, Crookston and Duchall in 1489 and Tantallon Castle in 1491 and the naval expeditions in the west in 1493-5 and 1498. He commanded the major incursions into England in 1496 and 1497.

A contemporary account of James by the Spanish ambassador, Don Pedro de Ayala, regarded as a friend and admirer, raises questions about his ability. In a report to Ferdinand and Isabella of Spain in 1498 he says

He is courageous, even more so than a king should be. I am a good witness of it. I have seen him often undertake most dangerous things in the last wars. I sometimes clung to his skirts and succeeded in keeping him back. On such occasions he does not take the least care of himself. He is not a good captain, because he begins to fight before he has given his orders.¹⁷

By 1513 James had gained greater experience and, hopefully, maturity, as well as the benefit of advice from one of the most respected soldiers and military thinkers of his day, the Marshal of France, Bérault Stuart, Seigneur d'Aubigny. Stuart, who was of Scottish ancestry, came to Scotland in May 1508 as the ambassador of Louis XII along with a train of distinguished Frenchmen including that other noted soldier, Messire Antoine d'Arces de la Bastie. James welcomed them in great style, and the tournament held in Edinburgh at the end of May was no doubt occasioned entirely by their presence. D'Aubigny, then in his mid-50s, sickened and died shortly afterwards at Corstorphine (now within the bounds of Edinburgh), but not before he had dictated a treatise on the art of war to his

¹⁶ J.D. Mackie, 'The English Army at Flodden', *Miscellany of the Scottish History Society*, vol., VIII (1951), pp. 47-49.

¹⁷ P. Hume Brown (ed.), *Early Travellers in Scotland* (Edinburgh, 1891), p. 40.

French secretary.¹⁸ This work must surely have been intended for James. It is a short common sense work based largely on the author's practical experiences fighting in Italy and also on earlier military writers. It is a very effective check-list of everything a good commander has to take into account and do in going to war. Perhaps the last instruction the king would have reminded himself of was the importance of considering whether there was time to reposition his army in a more advantageous position in the face of an enemy advancing to do battle.¹⁹

The historian, Lindsay of Pitscottie, gives detailed accounts of how the two armies that fought at Sauchieburn in 1488 were drawn up, and although he was writing in the late 16th century, it is probable that he was using earlier, authoritative, sources. The most obvious defect in his account is that the numbers fighting appear to be exaggerated – a common problem with battle descriptions.²⁰ James III is said to have had a vanguard of 10,000 Highlanders under the earls of Huntly and Atholl armed with bows, a rearguard 10,000 strong from the west and Stirlingshire commanded by the earl of Menteith, Lord Erskine and Lord Graham, and a main battle consisting of all the common folk and townspeople under the king himself. On the right wing he had the men of Angus and Fife, 2,000 horsemen and 6,000 foot under the earl of Crawford and Lord David Lindsay of the Byres (Pitscottie's great uncle). On the left wing were the men of Strathearn and Stormont under Lord Ruthven, numbering 1,000 gentlemen well horsed with jacks (jackets reinforced with metal plates) and spears, 1,000 armed with bows and 1,000 with halflang swords (with hilts that could be grasped with one or two hands) and habergeons (mail coats), besides a further 2,000 from the burgh of Perth.

The rebel army consisted of three battles, each said by Pitscottie to be 6,000 men strong. Other 16th-century sources on the battle say that the rebels had a larger force than the king.²¹ In the vanguard were the men of the Merse, Teviotdale and East Lothian under the Homes and Hepburns; the main battle had the men of Liddesdale, Annandale and a contingent from Galloway; and in the rearguard were the prince and a group of lords who had conspired against the king at Lauder. Although Pitscottie does not spell

¹⁸ E. De Comminges, *Traité sur l'Art de la Guerre de Bérault Stuart Seigneur d'Aubigny* [hereafter d'Aubigny, *Traité sur l'Art de la Guerre*] (La Haye, 1976).

¹⁹ d'Aubigny, *Traité sur l'Art de la Guerre*, p. 5.

²⁰ Pitscottie, *Historie*, vol., I, pp. 205-10.

²¹ N. Macdougall, "The greatest scheip that ewer saillit in Ingland or France": James IV's "Great Michael", in *Scotland And War AD79-1918*, ed. N. Macdougall (Edinburgh, 1991), p. 256.

it out, we might guess that the vanguard and rearguard included a lot of horse. Much of the rebel army was drawn from the Borders, a region famous for producing light horsemen. Pitscottie tells how an attack by the rebel vanguard on the king's vanguard was repulsed. This we interpret as a cavalry attack on a foot unit. Meanwhile the rebel rearguard including the prince was on the point of giving ground before the king's rearguard. Again we might deduce that this was a rebel force, largely mounted, being worsted by a royal force of footmen. The turning point in the fighting was an assault by the rebel main battle on the king's battle. One of the most intriguing statements about the battle comes from the history of Scotland by George Buchanan, first published in 1582. He says that the success of the rebel main battle was largely down to the greater length of the rebel spears than those of the king's men.²²

Fighting With Pikes: A Military Revolution

Sauchieburn was the last major battle fought by the Scots before Flodden and no doubt had an enormous effect on forming the military thinking of the new king and his advisers. That the Scottish army in 1513 fought on foot with long spears, or pikes as we would now call them, may directly be linked to the experience of Sauchieburn. An interest in pikes can first be traced in official circles in 1471 when an act of parliament required all imported and locally made spears to be at least six ells long (5.64m).²³ Ten years later this was amended to a length of at least five and a half ells (5.17m) or five ells before the burr (a ring on the shaft).²⁴ Whether of six or five and half ells these spears were of enormous length, probably considerably longer than any spears hitherto in use. They were the pikes which had been used so successfully by German mercenaries (landsknechts). When employed by large, compact units of well trained and drilled men, pikes were a formidable obstacle to footmen and horse alike. It was only if pike units became disarranged or dispersed that they could be defeated. Then the length of the pikes could become a severe disadvantage to individual soldiers lacking the protection provided by other pikemen to their flanks and rear.

Training and good discipline were absolute necessities for the wholesale adoption of a new weapon like the pike. It is doubtful, however,

²² G. Buchanan, *The History of Scotland*, trans. J. Aikman (Glasgow and Edinburgh, 1827), vol., II, p. 220.

²³ *Records of the Parliaments of Scotland to 1707*, <http://www.ac.uk> [hereafter RPS] 1471/5/6, accessed 4 January 2013.

²⁴ RPS 1481/4/5, accessed 4 January 2013. The significance or purpose of the burrs on the pike shafts is not clear.

if the Scots had the time or the mechanisms in place to turn amateur fencible troops into the equivalent of professional landsknechts. Scottish governments from time to time issued and up-dated legislation about the holding of wappenschaws (musters or military reviews), specifying what arms and armours the lieges were required to have. Such an act was issued in May 1491. It required sheriffs, stewards and bailies to hold wappenschaws four times a year. It specified the arms and armour that gentlemen, yeomen, burgesses and inhabitants of burghs between the ages of 16 and 60 had to have. The gentlemen were to be armed with sword, spear and dagger while the rest were to have bows, swords, bucklers (a type of shield) and knives, or else a spear or axe instead of a bow. Football, golf and other unprofitable sports were proscribed and there were to be archery butts in every parish. Severe financial penalties were listed for any noncompliance.²⁵ It should be noted that this was essentially a re-issue of earlier legislation of 1458 and 1471.²⁶ The conclusion that might be drawn from it is that bows continued to be the main weapon of the Scots in 1491. It is possible, however, that the legislation was lagging behind reality and did not take into account the increasing interest in pikes. It is also important to see that the only provision in this legislation for training relates to archery. No standards are set in terms of proficiency or hours of practice and there is no mention of required skill in the use of other weapons, or instructions for creating units and drilling them.

A contemporary English account of Flodden noted that the Scots were well armoured,²⁷ and at least one English armourer, William Tour, acquired large amounts of Scots armour for resale. Over and above what he sold immediately after the battle he had 350 sallets, gorgets, backs, breasts and pairs of splints.²⁸ These sound like ‘sets’, perhaps imported, although there is evidence for armour-making in Scotland.²⁹ Sallets were helmets with round skulls extending into a point at the back as a protection for the neck, and the gorgets would have been plate defences attached to protect the neck at the front. The splints were arm defences made of plates of metal.

²⁵ RPS 1491/4/17, accessed 4 January 2013.

²⁶ RPS 1459/3/7,1471/5/6, accessed 4 January 2013.

²⁷ D. Laing, ‘A Contemporary Account of the Battle of Flodden’, *Proceedings of the Society of Antiquaries of Scotland*, vol., VII (1866-68), p. 150.

²⁸ State Papers Henry VIII, vol. 5, fol. 31, National Archives (Kew, London),

²⁹ D.H. Caldwell, ‘Royal Patronage of Arms and Armour Making in Fifteenth and Sixteenth-Century Scotland’, in *Scottish Weapons and Fortifications 1100-1800*, ed. D.H. Caldwell (Edinburgh, 1981), pp. 85-86.

Leading Scots were clearly aware of military developments in Europe, especially the rise of pike-wielding, German landsknechts in the late 15th century and their successes on several battlefields, sometimes fighting for the Holy Roman Emperor, or as mercenaries for other states and kings, including the French. What the Scots should also have perceived lay behind their successes was a whole military system that ensured high standards of professionalism, that produced men well equipped and trained in the use of their weapons and provided a structure with ranks, specialists and commanders for operating efficiently on campaign. Landsknecht forces did not come cheap, requiring to be paid for their services.³⁰

For the Scots even the provision of thousands of pikes for the lieges presented logistical problems. Their manufacture was clearly not beyond the skills of bowers or other craftsmen but the quantities required to arm the whole host probably meant that there was no realistic alternative to importing most of them from the continent. It may be of significance that the tax the king levied for his expedition into England in 1496 is referred to, perhaps as a nickname, as the tax of spears or spear silver.³¹ Was this because it was perceived that the purchase of spears was the main requirement? Sir John Ramsay, the forfeited Lord Bothwell, in a letter to Henry VII from Berwick on 8 September 1496 – that is a few days before the Scottish mobilisation – wrote of seeing in Edinburgh Castle 16 close carts for spears.³² Perhaps several of the 143 carters feed for the campaign also contained pikes for distribution in the event of a pitched battle.³³

An English spy report of February 1512/13,³⁴ concerning Scottish preparations for war, notes that there were quantities of ‘lance staves’ in Edinburgh Castle and the English chronicler, Hall, tells us that in 1513, after Henry VIII had made his decision to invade France, the Scots were

³⁰ For recent studies of landsknecht forces see D. Miller, *The Landsknechts* (Oxford, 2000), and J. Richards, *Landsknecht Soldier 1486-1560* (Oxford: Osprey Publishing, 2002).

³¹ *TA*, vol. I, pp. 312 and 324.

³² *Original Letters, illustrative of English history, 1st series*, ed. H. Ellis (London, 1824), vol., I, p. 31.

³³ *TA*, vol. I, pp. 280, 291 and 295.

³⁴ This date was actually February 1512 for contemporaries since the year then ended on 25 March. Dates that fall between 1 January and 25 March have been updated in the text.

daily importing from Campvere (the Scottish trading staple in the Netherlands) long spears called ‘colleyne clowystes’.³⁵

Taking the evidence for holding wappenschaws along with this information on pikes it seems that the lieges were not expected or required to provide their own pikes but that large quantities were acquired for the arsenal in Edinburgh Castle, they were loaded into carts and distributed when battle seemed likely.

No further acts on wappenschaws and arms and armour are engrossed in the parliamentary register for James IV’s reign after 1491, but there is a piece of legislation from 1504 which is known from the printed acts of parliament of 1566. It requires that the wappenschaws for the whole of the country should be held on the Thursday during Whitsunday week and that arms and armour should not be destroyed in peacetime.³⁶ It is not clear that this means that the Whitsunday wappenschaws were now all that were required in a year, but at the very least it suggests a lack of vigour or interest in maintaining the readiness of the host for warfare. Letters were, however, issued in January 1513 for the holding of wappenschaws. The returns from local officers ought to have provided an opportunity only a few weeks before war with England for the king and his advisers to assess the extent to which complacency had set in with regard to military preparedness, or what shortcomings there were in equipment and training. I have written elsewhere of how it was attention to training that was one of the main reasons for the notable achievements of King Robert I in warfare.³⁷

There is no evidence that this was a lesson fully taken on board by his royal successors. James IV’s solution to training was to seek experts from France, but very late in the day. When his secretary, Andrew Forman (Bishop of Moray) wrote to Louis XII in July 1512 asking for money, guns and gunpowder for the forthcoming war the latter wanted the Scots to wage against the English he also, tellingly, requested a small number of men to show his fellow countrymen how to form in battle order and how to besiege fortified places.³⁸ The instructions given to Forman in March 1513 when he went to France to negotiate with Louis XII were more specific in that he

³⁵ *James IV Letters*, no. 527; *Hall’s Chronicle* (by Edward Hall), (London, 1809), p. 555. These spears were so-called presumably because they came from Cologne. ‘Clowystes’ (nails?) may be a piece of irony.

³⁶ RPS A1504/3/120, accessed 4 January 2013.

³⁷ *TA*, vol., IV, p. 402; D.H. Caldwell, ‘Scottish Spearmen, 1298-1314: An Answer to Cavalry’, *War in History*, vol. XIX (III) (2012), pp. 267-89.

³⁸ *James IV Letters*, no. 416.

was to request 2,000 men used to campaigns and sieges, 200 or 300 men-at-arms, artillery and gunners well versed in war, all paid for by the French.³⁹

James got rather fewer experts than he sought. A contemporary account of Flodden by Brian Tuke, the English Clerk of the Signet, describes the presence of a French knight, D'Aussi, with a force of 50 men-at-arms and 40 captains who were to command the soldiers, while an Italian poem on the battle, at least partially derived from Tuke's account, talks of the 40 captains being distributed eight to a battle.⁴⁰ The 16th-century Scottish historian, George Buchanan, has the king, swayed by these foreign experts, go against the wishes of his nobles in striving for a pitched battle.⁴¹

Eight French captains per battle would only have been a small proportion of the command structure necessary to give these large units structure and cohesion and enable them to execute manoeuvres efficiently. A landsknecht regiment, notionally of 4,000 men, was divided into ten companies (Fähnlein) and each company into 40 platoons (Rotten). The colonel, the officer in charge, had a staff of 22 and each of the companies and platoons also had its own officers.⁴² It is dangerous to argue from negative evidence but let it at least be said that there is no evidence for officers and units in the Scottish host at this time and no record that the Scots undertook any drill or training when encamped on Flodden Edge in the days before the battle. The units in the Scottish army were created on a regional basis and commanded by the greatest lords of those regions. It can be suggested, however, that a number of the minstrels and trumpeters, including Italians and Frenchmen, to whom payments are recorded in the Scottish Treasurer's accounts, performed the same functions on the Flodden campaign as the drummers and fifers of landsknecht regiments – that is provided a beat for marching and gave signals.⁴³

Guns

James IV inherited a gunnery establishment with experienced professionals led by a master of the artillery, normally a lord or member of the landed gentry. There was a tradition of using guns that extended back for over a hundred years. Despite a lack of contemporary documentation it is clear that guns had been used in siege work, possibly as early as the 14th century, and

³⁹ *Flodden Papers*, p. 75.

⁴⁰ W.M. Mackenzie, *The Secret of Flodden* (Edinburgh: Grant and Murray, 1931), pp. 71, 104 and 113.

⁴¹ Buchanan, *History of Scotland*, vol. II, p. 252.

⁴² Miller, *The Landsknechts*, pp. 4-5.

⁴³ *TA*, vol. IV, pp. 44 and 443.

certainly with success by James II in the years from 1452 to 1460. James III had a gun-foundry in Edinburgh, operating at least in 1473-4.⁴⁴ D'Aubigny's *Treatise* stresses the importance of firearms and artillery and there is evidence for James IV taking an interest in guns from the very beginning of the 16th century, not only as a matter of policy but also at a personal level.⁴⁵ Whereas he had formerly had much joy in shooting with a crossbow there are now indications of his interest in shooting with handguns and there are likewise instances where he demonstrated a personal interest in artillery. In 1506 an iron gun was carried to Leith sands so that it could be fired before him and the following year he actually shot some 'great guns' in the Abbey close at Holyrood with three of his gunners in attendance.⁴⁶ There were Scots involved in the making of handguns and James had 'Dutch' gunmakers working in Edinburgh Castle from 1510.⁴⁷ There is no evidence, however, that handguns made any significant contribution to Scottish warfare at this time.

In the second half of the 15th century artillery was greatly improved in several ways, especially in the Low Countries and France, and the new improved guns soon appeared in Scotland. James III is said to have had a train of artillery gifted to him by the French king.⁴⁸ The new guns were of cast bronze, much stronger than earlier wrought iron pieces, and made to fire cast iron or lead shot which was much heavier than the equivalent size stone shot fired from wrought iron guns, and therefore much more destructive. The bronze guns were cast with trunnions on both sides of the barrel for ease in mounting on wheeled carriages for transport and firing.

Several different types of guns now become clearly distinguishable, conforming to more or less similar specifications of size and weight throughout Europe (Table 1). The largest were cannons and double cannons, meant primarily for battering down walls. Next in size were the culverins, which, although having smaller bores, were relatively longer in length, thus giving them a greater range than the larger guns. Smaller in size than these guns were various falcons and hagbuts of crok, the latter having hooks on the underside of their barrels for mounting them instead of trunnions. The larger culverins made good siege guns, the smaller ones, the falcons and

⁴⁴ D.H. Caldwell, 'The Scots and Guns', in A. King and M. Penman (eds), *England and Scotland in the Fourteenth Century: New Perspectives* (Woodbridge: Boydell Press, 2007), pp. 60-72; Caldwell, 'Royal Patronage of Arms and Armour Making', pp. 74-81.

⁴⁵ d'Aubigny, *Traité sur l'Art de la Guerre*, pp. 4, 13 and 17.

⁴⁶ *TA*, vol., III, p. 203; vol., IV, p. 100.

⁴⁷ Caldwell, 'Royal Patronage of Arms and Armour Making', pp. 80-81.

⁴⁸ Hume Brown, *Early Travellers*, p. 48.

hagbuts were used as field guns. Wrought iron guns, mostly breech loading and firing stone shot were in use as they were cheaper and easier to make.

James purchased guns on the continent in 1509, much to the curiosity of the English. Negotiators for making the purchase were in the service of the Archbishop of Glasgow and they evidently made a deal with Hans Popenroyter of Mechelen. We know this because Henry VIII's agent, Thomas Spinelly, wrote to his royal master in February 1510 that he had made a deal with Popenroyter for guns at a lower price than those supplied to the Scots. King Henry was well satisfied with his agent's work and sneakily suggested that he might also try to procure the guns meant for the Scots, apparently without success as they were shipped home by George Paterson of Leith in October 1511.⁴⁹

No doubt these guns were very expensive, and if James had any inkling of the underhand trick proposed by his brother-in-law he would have had a further very good reason for seriously turning his attention to founding his own guns in Scotland. He had, in fact, started to do so in 1508, the work being done in Stirling. The entries in the Treasurer's Accounts relating to this make it clear that it was already underway a few weeks before d'Aubigny's arrival, but the French gunmaker who was involved in the work may have come with d'Aubigny.⁵⁰

Three years later the gun foundry was moved to Edinburgh Castle and a new figure emerges who was of some importance in the history of guns in Scotland. Robert Borthwick's background is not known but he was evidently a Scot who was taken into royal service owing to his abilities as a founder. He was joined by a group of French gunners in 1510-11 who also worked on the gun casting, and about the same time by Wolf of Nürnberg who made gunpowder. There were also smiths, wrights and other craftsmen who worked on the gun carriages and other items of equipment.⁵¹ Detailed information is lacking on what exactly the gun foundry produced but it is likely to have included several of the large guns in the artillery train fielded in 1513. The historian, Leslie, describes seeing guns in his day with Latin

⁴⁹ *L & P*, vol., I, nos 216, 922 and 523; *TA*, vol., IV, p. 286.

⁵⁰ *TA*, vol., IV, pp. 117, 127.

⁵¹ D.H. Caldwell, 'The Royal Scottish Gun Foundry in the Sixteenth Century', in A. O'Connor and D.V. Clarke (eds), *From the Stone Age to the 'Forty-Five* (Edinburgh: John Donald Publishers, 1983), pp. 427-449.

inscriptions indicating they were made in the reign of James IV by Robert Borthwick.⁵²

James' request to Louis XII for guns and equipment led to the arrival in Leith roads, 30 November 1512, of a ship with the French ambassador, Charles de Tocque, Seigneur de la Mothe. In his party was one of the French king's gunners, Jehan Piefort, who may have taken part in the Flodden campaign, and there were also quantities of guns, shot and powder. Eight hundred iron cannon balls and 15000 lbs of gunpowder were released from French stores for sending to Scotland and English sources describe ten large brass guns, eight of which are said to have fired shot the size of a swan's egg.⁵³ There is complete silence in contemporary records with regard to the Scots casting their own iron cannon balls and it appears likely that they lacked the technological know-how and ability to do so. Three large shipments of iron gun shot from Campvere, the Scottish staple in the Low Countries, are recorded, two in 1511 and a third in July the next year.⁵⁴ All, or most, appear to have been for large guns, cannons and grose culverings, and were probably enough to supply the guns in the fleet and in the artillery train that went to England in 1513. It is probable that shot for smaller bronze guns were cast in Scotland in lead, sometimes reinforced with cubes of wrought iron. It is probable that the gunpowder maker, Wolf of Nürnberg, could not make sufficient powder of sufficient quality for all the ships and the artillery train.⁵⁵

Accounts of expenditure on the Scottish mobilisations of 1496 and 1497 survive and we are thus able to judge the complexity and organisation that was involved in getting the guns into action. In September 1496 James invaded England along with Perkin Warbeck, the pretended duke of York, in support of the latter's claim to the English throne. For several weeks beforehand the Treasurer's accounts record payments made in connection with buying, making or readying equipment for the expedition, not least the guns. John Lamb of Leith was especially busy making gun chambers and other iron work, Dande Achinson the wright was working at Melrose in Roxburghshire cutting timber to make parts for gun carriages – axles, wheels, limbers, 'hamys' (collars for draught horses), etc – Robert Herwort

⁵² J. Lesley, *The History of Scotland from the Death of King James I in the Year MCCCCXXXVI to the Year MDLXI* (Bannatyne Club, 1830), p. 81.

⁵³ *James IV Letters*, pp. 270-72; *L & P*, vol., I, no. 3577; *Calendar of State Papers and Manuscripts, relating to English affairs, existing in the Archives and Collections of Venice* [hereafter *State Papers Venice*], ed. R. Brown (London, 1867), vol., II, no. 316.

⁵⁴ *TA*, vol., IV, pp. 301-3 and 305.

⁵⁵ *TA*, vol., IV, p. 272.

was casting lead shot, some containing dice or cubes of iron, in Edinburgh Castle while John the Quarrier was shaping gun stones – to name just some of those involved in the preparations.⁵⁶ The artillery was finally gathered together at Restalrig just outside Edinburgh on 13 September and very probably consisted more or less of the guns described by Sir John Ramsay, the forfeited Lord Bothwell, in a letter written to Henry VII from Berwick on 8 September. Ramsay describes seeing in Edinburgh Castle two great curtalds (cannons) that had come from France, 10 falcons, 30 breech-loading, iron guns mounted on carts and 16 close carts for spears, gunpowder, guns stones, etc.⁵⁷

James may well have hoped that large numbers of Englishmen would rise in favour of Warbeck but in this expedition there is no evidence that he intended to pursue any course of action that would have taken him deep into enemy territory. He meant only to destroy and loot as much as possible in a limited area on the border. His guns, as listed by Ramsay, were mostly field pieces; only the two great curtalds or cannons would have been effective in siege work.

When guns were transported to besiege the castles of the Earl of Lennox and his supporters at the beginning of James' reign they were drawn by oxen, the responsibility of supplying which rested on the sheriffs of the sheriffdoms through which the guns passed.⁵⁸ The utilisation of the plough oxen for pulling the guns, at no cost to the king, was resorted to on several future occasions, indeed well into the 17th century, and by James' reign was probably long established custom. In September 1496, however, James seems to have relied wholly on horses which were considerably faster and more efficient, but which had to be hired at great cost (£237 6s). In fact 143 carters (with their carts) and 196 horses were paid to carry the guns, their equipment, the tents and other gear. Some at least of the carts came from Haddington and most of the rest, no doubt, from the burgesses of Edinburgh, Leith and Canongate, but the actual carts in which the smaller guns (serpentine) were mounted were royal property, as also the close carts which carried the powder, ammunition and other equipment.⁵⁹ There is no list of gunners who went on the expedition but probably at least eight, along with seven wrights and two smiths and a great number of labourers. A bellman was sent thrice through Edinburgh a few days before the guns set off to hire workmen and 76 men with spades, shovels and 'pik mattoks'

⁵⁶ *TA*, vol., I, pp. 292ff.

⁵⁷ *Original Letters, 1st series*, vol., I, p. 31.

⁵⁸ *TA*, vol., I, p. 116.

⁵⁹ *TA*, vol., I, pp. 280, 291 and 295.

were feed to draw the guns through peat and bogs. There were also 20 gentlemen who rode with the guns as a protection against surprise attack.⁶⁰

The horses and carters for the guns were paid on 13 September and were in Haddington, about 20 miles from Edinburgh, by the fourteenth. From there a difficult road was taken over the Lammermuirs to Johnscleuch where the guns rested on the night of the 16th. Johnscleuch is only about ten miles from Haddington but presumably owing to the difficulty of the road it took at least a whole day to get there, if not two. From there it was another eight or so miles to Ellem where the host was supposed to muster, but the guns pressed on, perhaps by a road a bit further to the south and reached Langton, about 18 miles away near Duns, on the 17th.⁶¹ They were taken across the Tweed into England on 21 September with the help of the local boatmen, probably at or near Coldstream. Meantime, James himself with at least some of his gunners was only at Ellem on the 19th though the main part of the army may have been as many as four days ahead. Certainly Perkin Warbeck, for whom ostensibly the expedition had been mounted, was already returning to Scotland on 21 September, disheartened by the lack of support for his cause from the English.⁶²

It is known from an English survey of 1541 of the castles, towers, barmkins and fortresses of the East and Middle Marches that in this expedition the Scots destroyed the towers of Duddo, Thornton, Tillmouth, Howtel, Branxton, Shoreswood, Twizel and Lanton, and the rather more substantial castle of the Grays of Heaton, shown in an Elizabethan sketch as a quadrangle with towers at the four corners.⁶³ The distribution of these strongholds suggests that the Scots plundered and ravaged an area about ten miles long extending as much as seven miles deep into England. It is probable that most of this destruction was achieved by fast-moving, loosely organised raiding bands which may also have been responsible for storming and wrecking the towers. James' main effort seems to have been directed against Heaton where he certainly had his gunners and masons, who were paid for digging a mine on the nights of the 24th and 25th. Perhaps the two

⁶⁰ *TA*, vol., I, pp. 297 and 300.

⁶¹ For the route taken by the guns see A. Graham, 'More Old Roads in the Lammermuirs', *Proceedings of the Society of Antiquaries of Scotland*, vol., XCIII (1959-60), pp. 217-35; D.H. Caldwell, 'Anglo-Scottish relations: James IV and Governor Albany', in P.G.B. McNeill and H.L. MacQueen (eds), *Atlas of Scottish History to 1707* (Edinburgh: Edinburgh University Press, 1996), p. 121.

⁶² *TA*, vol., I, pp. 296ff.

⁶³ C.J. Bates, 'The Border Holds of Northumberland', *Archaeologia Aeliana*, vol. XIV (1890), pp. 29-49, 329-330.

curtalds were not as effective as wished. According to an English report the Scots stole away on the night of the 25th as a relieving army advanced on them from Newcastle,⁶⁴ but it is likely that the 25th or 26th was planned all along for the disbandment of the expedition as the carters, craftsmen and other specialists are only known to have been paid for a fortnight. Heaton Castle was left as a ruin which was never repaired.

In the following year James, now disembarrassed of Perkin Warbeck, decided to make an even bigger effort in England and attempt the siege of the major border fortress of Norham which belonged to the Bishop of Durham. Precise details as to the guns taken are lacking but the presence of Mons – the great iron bombard still in Edinburgh Castle - and the greater number of men and amount of equipment, would indicate that this time James fielded more substantial guns than in the preceding year. Despite making the raid last for a week longer he was still unable to pursue the siege for more than a few days.

With the guns went at least 13 gunners, 221 men with shovels, spades and picks, 12 wrights, a cooper ‘for the powder’ and four smiths. There were also 61 quarriers and masons who may have combined their abilities in mining and demolition work with making gun stones and clearing a passage for the guns. Over and above these were the three wrights, two smiths and 100 men who were detailed to accompany Mons. Mons was by 1497 an old-fashioned gun and had to be carried in a cradle and then dismounted for firing. As in 1496 James laid out prodigious sums on hiring horses with their keepers – 188 horses, eight oxen and 113 men which cost over £100 per week, and all were paid for three.⁶⁵

The men and horses for the artillery were feed on 19 July and at least some of the guns were then put on the road, reaching ‘Corriwale Hewch’ on the 27th. On the 20th the king set off for Melrose, probably where the army was due to muster. On the 21st Mons was drawn from the castle and brought down through the town with minstrels playing before her, but she only got as far as St Leonard’s on the outskirts of town, on the Dalkeith road, before her cradle broke and a new one had to made.⁶⁶ She and other guns then lay in the abbey of Holyrood for several days from the 24th to the 29th. James himself, with the main army, was at Norham by 4 August and probably a few days earlier than that, but even so the siege could not have

⁶⁴ *Calendar of Documents Relating to Scotland*, vol. IV, ed. J. Bain (Edinburgh, 1888), p. 419.

⁶⁵ *TA*, vol., I, pp. 346ff.

⁶⁶ *TA*, vol., I, p. 348.

lasted long since the Scots abandoned it on either the seventh or eighth and Mons, since she only left Holyrood on 30 July, could hardly have been brought to play against the castle for more than four days at the very most. Nevertheless the damage inflicted was not inconsiderable as is attested by the rebuilding of a length of curtain wall of the outer ward soon afterwards.⁶⁷ This repair work suggests, incidentally, that the Scots chose to bombard the castle from across the River Tweed. There are still nine 18 inch (457mm) stone balls at Norham, presumably fired by Mons. Again the Scots are assumed to have scaled before an oncoming relief army under the earl of Surrey but there is no indication from the Treasurer's accounts that it was intended to pay wages to professionals after the first week in August. In fact, James seems only to have heard of the coming of Surrey on the 13th, after he had disbanded his army, and had immediately to raise a new force.⁶⁸

The detail in these accounts of 1496 and 1497 suggest an efficient administration, one that could rise to the challenge of sorting Mons when her cradle broke and one which functioned regardless of the presence or not of the king. We may speculate that lack of greater success may at least partially have been due to slender resources in guns, shot and powder.

The Navy

One of James IV's recent biographers describes his interest in creating a navy as an obsession.⁶⁹ His father had also taken some interest in ships and two Leith skippers, Sir Andrew Wood and Robert Barton, loom large in the annals of his reign. Wood became one of his closest and most trusted advisers while Barton was greatly relied upon in the setting up of an ambitious ship-building programme, employing craftsmen and importing materials and supplies. Wood and Barton are but two of several Scottish sea captains of James' reign who made a name for themselves in naval engagements, if not piracy. Others included Robert's father John and brothers Andrew and John, William Brownhill and David Falconer.⁷⁰ There is no doubting that the Scots had a propensity for fighting from ships. King James' obsession led him to participate in naval campaigns in 1493-5 and

⁶⁷ C.H. Hunter Blair and H.L. Honeyman, *Norham Castle* (London, 1961), p. 12.

⁶⁸ *TA*, vol., I, p. 352.

⁶⁹ Macdougall, *James IV*, pp. 223-46.

⁷⁰ *TA*, vol., II, pp. lxxxv-lxxxix; vol., III, pp. lviii-lxx; vol., IV, pp. xxxviii-lxiii; Macdougall, *James IV*, pp. 223-46; W. Stanford Reid, *Skipper from Leith: the history of Robert Barton of Over Barnton* (Philadelphia: University of Pennsylvania Press, 1962); *Oxford Dictionary of National Biography*, [http://: www.oxforddnb.com](http://www.oxforddnb.com), s.v. Sir Andrew Wood, Sir Robert Barton (accessed 4 January 2013).

1498 in the Western Isles where he seems to have met no opposition at sea from the galleys and birlings of the Islesmen. In 1502 he sent a small fleet of ships to Scandinavia to aid King Hans of Denmark against his rebels.

James hired ships for his campaigns from the Bartons and others, and purchased others, including the *Unicorn*, in France, in 1506.⁷¹ More significantly, starting in 1502 he undertook a royal programme of building two large ships, the *Margaret* and *Michael*, and commissioned a third, the *Thesaurar*, from a Breton shipwright, Martin Lenalt of Le Conquet, delivered in September 1506.⁷² That she was of some size is demonstrated by the number of her crew, said to have been 300, about the same as the *Michael* (see below).⁷³ She was shipwrecked in the summer of 1508 and the *James*, acquired in 1511, may have been viewed as a replacement. All were for warlike enterprises, especially a crusade. Many assumptions have been made about their size, effectiveness and build. Both the *Margaret* and the *Michael* are referred to as the ‘great ship’ in the expenses to do with their construction, and with the *James* are identified by contemporary English commentators as ‘great’ in terms of size, the *Michael* being the largest of the three.⁷⁴ Modern scholars have readily concluded that they would have been of carrack build – broad and sturdy with high castles at bow and stern.

The construction of both the *Margaret* and the *Michael* depended on French shipwrights brought to Scotland by Robert Barton, in the case of the former, John Lorans and Jennen Diew, and for the latter, Jacques Terrell. Scottish shipwrights, including those building royal ships in Dumbarton on the Clyde, may all still have been constructing relatively small ships in clinker fashion, in which the planks overlapped with each other horizontally and the complete infrastructure of timbers, thwarts, etc, were put in after the shell of planks has been completed. The French shipwrights no doubt introduced carvel construction, in which the framework of the ship was built first of all and the planks were attached flush. Carvel nails were amongst the supplies purchased in France by Robert Barton for the royal ship-building programme in July 1504, presumably for the *Margaret*.⁷⁵

⁷¹ *TA*, vol., III, p. 341.

⁷² *TA*, vol., III, p. 341. The ship-building accounts and other matters to do with the navy, including payments for victuals and other supplies for the ships, are incorporated in the Treasurer’s accounts. See *TA*, vol., II, pp. 281-88; vol., III, pp. 89-91 and 295-99; vol., IV, pp. 284-307, 368-69, 444-47 and 451-507.

⁷³ Lesley, *History*, p. 79.

⁷⁴ See *James IV Letters*, no. 527, appendix II.

⁷⁵ *TA*, vol., II, p. 285.

Further information on James' three great ships can be gleaned from ship-building and provisioning accounts engrossed in his treasurer's accounts. The *Margaret* was constructed at Leith from late 1502. Many of the supplies and materials for the work came from France, including her keel, much of the wood used to build her, many of her fittings and even the tools for those who worked on her. Other supplies were sourced in Flanders. She was taken off her stocks in January 1505 and two masts were put in in the following year, followed by a third in May 1506.⁷⁶ There is mention of the 'mers' or top, a fighting platform at the top of a mast. She was floated out of Leith that summer and taken upriver to the Pool of Airth where a dry dock had been dug for her final fit-out. She is recorded to have sailed on 19 August 1507, perhaps her maiden voyage as a completed vessel.⁷⁷

Most of what we think we know about the *Michael* is derived from Pitscottie's late 16th-century history. He claims as his authorities Sir Andrew Wood and Robert Barton, the former described by him as the ship's quarter-master, the latter as 'master-shipper', although Pitscottie cannot have been any more than a baby when these two sailors died. The main points of Pitscottie's account are:

- She was the largest, strongest ship to sail in England or France
- She was so large that all the woods of Fife, save Falkland, were consumed to build her, along with much timber from Norway
- It took all the wrights of Scotland along with many foreigners a year and a day to complete her
- She was 240 feet (73.15m) in length and 36 feet (10.97m) wide in the interior within ten foot (3.05m) walls
- She 'cumbered Scotland to get her to the sea', costing the king £30,000
- She had six cannon on each side and three 'great bassils' (perhaps long barrelled double cannon – see table 1),⁷⁸ two of them at her stern, the third firing over her bow. She also had 300 small pieces of 'artillery' including bows and crossbows.⁷⁹
- She had 300 mariners, 120 gunners and 1000 men of war, besides her captains, skippers and quarter-masters.⁸⁰

⁷⁶ *TA*, vol., III, pp. 135, 170, 189 and 195.

⁷⁷ *TA*, vol., III, p. 334.

⁷⁸ Cf. L.G.C. Laughton, 'Early Tudor Ship-Guns', *Mariner's Mirror* (Nov., 1960), p. 260.

⁷⁹ Macdougall, "'The greatest schein that ewer saillit'", p. 38, interprets Pitscottie's statement that the *Michael* had 'six cannon on every side' as 12 guns aside.

⁸⁰ Pitscottie, *Historie*, vol.,II, pp. 251-52.

Despite the impressive qualifications of Pitscottie's sources it is clear that considerable caution has to be exercised in judging the veracity of his information. On the one hand contemporary naval accounts do seem to indicate that wood was being felled in Fife, perhaps under the supervision of Jacques Terrell, early in 1506, and later in 1512.⁸¹ In 1511 wood was also cut in Ross, around Loch Ness, and sought in Norway that year and the following.⁸² It is just possible that the great bassils of Pitscottie's account can be identified as the three 'scharpentynns' (serpentines) for the *Michael* paid for in July 1513.⁸³ The only other consignments of guns mentioned in the naval accounts that can definitely be allocated to her are seven passevolants got in France by her captain, Alexander Routh.⁸⁴ They were probably guns of relatively small bore. Interestingly, Pitscottie's information on the *Michael's* large guns provides a much lower total than that given by James IV himself when he boasted to the English ambassador in April 1513 that she fired 16 large guns aside.⁸⁵ On the other hand, a ship 73m long would certainly have been huge and we may reasonably doubt the truth of that when we compare that figure with the English warship, the *Mary Rose*, with a verifiable length of 45m when she sank in 1545.⁸⁶

Robert Barton, along with Jacques Terrell, was already acquiring Swedish boards by July 1505 and later that year wood from Scotland, presumably for the *Michael*, and her keel appears to have been set out on 29 July 1506. She was built at James IV's new naval dockyard, the Newhaven, just to the west of Leith. Barton brought home some more French shipwrights in August 1506 and she seems to have been launched on 12 October 1511.⁸⁷ She was still been finished and fitted out at Newhaven as late as July 1513, the time she sailed on campaign. Ballast was being loaded into her in August 1512 so she could sail, even though her great mast was

⁸¹ *TA*, vol., III, p. 186; *The Exchequer Rolls of Scotland* [hereafter *ER*], vol., XIII, p. 431.

⁸² *TA*, vol., IV, pp. 289, 296 and 373; *ER*, vol., XIII, p. 452.

⁸³ *TA*, vol., IV, p. 484. The term 'serpentine' appears to have been used to describe both large and small guns.

⁸⁴ *TA*, vol., IV, p. 487.

⁸⁵ *James IV Letters*, appendix II.

⁸⁶ See <http://www.maryrose.org> (accessed 4 January 2013) for details on, and specifications of the *Mary Rose*. Compare also the length of 218ft (66.4m) estimated for the English royal ship the *Grace Dieu*, launched in 1418. She survives as a partial, largely unexplored wreck. She was of 1400 tons. See *Grace Dieu* entry in <http://www.pastscape.org.uk> (accessed 4 January 2013).

⁸⁷ *TA*, vol., III, pp. 84, 208 and 295; vol., IV, p. 313.

not yet up. ‘Seams and ruives’ (rivets and roves) were supplied for attaching her set boards (washboards, presumably in this context of her castles, fore and stern),⁸⁸ presumably clinker fashion, but there is no reason to doubt that her main hull was built as a carvel. The shipbuilding accounts also mention that she had a cowbrig (orlop deck), poop and pantry rooms. Mention of the banding of pavises and targes for the ships may indicate that the *Michael*, along with the *Margaret* and *James*, was decorated with a pavisade, a protective barrier of shields around the ship’s sides.⁸⁹ An English report of 11 September 1512 claims the *Michael* had run aground in the Forth, on one of her earliest outings. She was later reported to have run aground in France late in 1513 – which poses the question whether she was difficult to manoeuvre.⁹⁰

Payments for the purchase of a ‘great boat’ called the *James* are recorded in the navy and shipbuilding accounts for October 1511.⁹¹ It appears she had been at least part owned by one William Wood and was sold on by his executors along with another ship. From then until May 1513 she underwent a major refit. She had probably been used previously solely as a merchant vessel and now had to be converted for use in warfare. She either had existing set boards repaired or set boards added clinker fashion to a forecastle and stern-castle. A mast was erected in February 1513 and there is mention of a top. A pavisade was probably put in place the following month. A major change to her design appears to have been the repair, or more likely the addition of pantry rooms and a ‘cowbrig’. Perhaps this indicates the creation of a whole new cowbrig or orlop deck immediately above her hold, and the creation of pantry rooms – kitchen facilities? - over the cowbrig in the well between the castles. Pressure to get this work done in time is suggested by the fact that the French ambassador, de la Mothe, provided two shipwrights to work on her.⁹²

Although only five years old, the *Margaret* was remodelled from the end of 1512. The provision of saddles (blocks of wood fastened to a spar to take the bearing of another) and ropes to lash her mast suggest improvements to her rigging. Her keel was repaired and work was being

⁸⁸ *TA*, vol., IV, p. 456.

⁸⁹ *TA*, vol., IV, pp. 476, 479, 481 and 483.

⁹⁰ *L & P*, vol., I, no. 1380; *Letters and Papers relating to the War with France, 1512-1513* [hereafter *War with France*], ed. A. Spont (Navy Records Society, 1897), p. 188.

⁹¹ *TA*, vol., IV, pp. 287 and 306.

⁹² *TA*, vol., IV, pp. 287, 306, 453, 454, 455 and 462-78.

undertaken in January 1513 on her cowbrig, perhaps a new feature. ‘Great guns’ were put on board her at the end of June 1513.⁹³

Contemporary information on the size of Scottish ships including the *Margaret*, *Michael* and *James* is contradictory and not very reliable. Much reliance has been placed on a letter sent in July 1513 by the Venetian ambassador in France to his political masters. He describes the Scottish fleet as containing one ship of 1000 (burden) tons and two of 500 tons.⁹⁴ The reliability of the Venetian ambassador’s information is open to question, especially since the following week he was claiming that one of the Scottish ships was so large that it had a crew of 2000 sailors plus 6000 combatants, an exaggeration plausibly by a factor of 20. Other sources, however, make the main Scottish ships seem smaller. In an English report from Berwick on 7 August 1512 the *Michael*, *Margaret*, *James* and a ‘new barque’ (the *Bark Mytoun?*) are estimated as over 300 tons each. From a total of less than 20 ships available to James IV, two or three others are said to be of 100 tons and the rest 80 tons.⁹⁵ These latter appear to be downgraded to nine or ten small ‘topmen’ of 60 tons rigged for war, then at Leith, in a report of 13 April 1513 by the English ambassador. He compares the size of the *Margaret* to that of the English ship, the *Cryst of Lynne*, which can be established from English naval sources to have been of 300 tons.⁹⁶

It is believable that the main Scottish ships should have ranged in size from 500 to 1000 tons, especially when making a comparison with the *Mary Rose*, said to have been of 500 tons when built in 1509.⁹⁷ Pitscottie’s account has been used to make claims that the *Michael* was the largest ship afloat at the time, but she may have been no larger than English warships like the *Regent* of 1487, lost in battle with the French in 1512. She is said to have been of 1000 tons.⁹⁸ The *Michael* would almost certainly have been smaller than the early 15th-century *Grace Dieu* of 1400 tons and her contemporary, the *Henry Grace à Dieu* of 1500 tons, launched in 1514 probably as a response to the *Michael*.⁹⁹ We are lacking detailed contemporary information on French warships but since the *Michael* was

⁹³ *TA*, vol., IV, pp. 458, 463, 466, 473, 474, 476 and 481.

⁹⁴ *State Papers Venice*, vol., II, no. 268.

⁹⁵ *L & P*, vol., I, no. 1329.

⁹⁶ *James IV Letters*, no. 1775; *L & P*, vol., I, no. 1661 (4).

⁹⁷ Laughton, ‘Early Tudor Ship Guns’, p. 256.

⁹⁸ G. Hutchinson, *Medieval Ships and Shipping* (London: Fairleigh Dickinson University Press, 1994), p. 159.

⁹⁹ S. Rose, *Medieval Naval Warfare 1000-1500* (London and New York: Routledge, 2002), p. 86; Laughton, ‘Early Tudor Ship Guns’, p. 256.

essentially the work of French shipwrights it might be supposed that she was rivalled in size by French ships.

Some accounts of the period distinguish ships – their size or strength - on whether or not they had tops. Tops were crucial for ships engaged in war on the seas. Thus on 24 February 1513 an English report from Carlisle noted that in Leith there were 13 great ships of three tops, 10 small ships and the ship of Lynn taken by Will Brownhill.¹⁰⁰ Another way to assess the size of the Scottish ships is to analyse the records for the crews and provisioning of the ships in the fleet which sailed from Scotland in July 1513 (Table 2). The impression readily given is that the *Michael* was indeed considerably bigger than any of the others, and that the *Margaret* and *James* were next in size in descending order. The accounts may not tell the full story; for instance, an absence of gunners on most of the ships does not necessarily mean that they were not provided with artillery, and the mariners and gunners listed are only those employed directly by the Crown. On the figures given, it must be supposed that the crews of some of the ships, including the *Margaret* and *James*, were made up by fencibles or volunteers. James wrote to Lord Livingstone a few days before the fleet sailed in July 1513 to reprimand him for not sending able young men to man the ships. Letters had been written to the barons requesting them to provide them but Livingstone's tenants had refused to comply.¹⁰¹ It is probable that the Livingstone tenants' were not the only ones that were reluctant to take on this extra imposition.

It is important to try and understand where James IV's capital ships stood in relation to the history of naval warfare, in particular the development of ships as effective platforms for firing large guns. There are colourful accounts by Pitscottie of a naval engagement by Sir Andrew Wood in 1490 against the Englishman, Steven Bull, and a ballad commemorating the death in a naval fight in 1512 of Robert Barton's brother, Andrew.¹⁰² Both should be used with considerable caution in terms of extracting authentic historical details, and neither, in any case, says anything meaningful about gunfire. Of more interest in many ways are the records of payments in connection with the siege of Cairnburgh Castle in 1504. The castle is actually two adjacent fortifications occupying two small rocky islands in the Treshnish islands, off Mull. They were besieged by a

¹⁰⁰ *James IV Letters*, no. 527.

¹⁰¹ *James IV Letters*, nos 527 and 559.

¹⁰² Pitscottie, *Historie*, vol., II, pp. 227-30; *The English and Scottish Popular Ballads*, ed. F.J. Child (New York: Ewan MacColl & A.L. Lloyd, 1965), vol., III, pp. 341-42.

royal expeditionary force for several weeks, the ships having been supplied with guns and the additional expertise of Hans, one of the royal gunners.¹⁰³ It is not known what part the guns played in Cairnburgh's capture or surrender, but they must have been fired from the ships as there was no place to land them in the face of enemy opposition.

There is no evidence that King James envisaged his capital ships as troop transporters. They were fighting ships, and the best interpretation of the contemporary evidence is that they were built, or in the case of the *James*, remodelled to mount large guns. The mention of cowbrigs is perhaps of particular significance as the creation of these decks may relate to the positioning of large guns low down in the hulls, firing out of gun ports which could be secured shut with hinged lids. The cutting of gun-ports in ships' hulls is said to have been a French innovation dating to 1501.¹⁰⁴

For understanding the appearance of the *Michael* and the other great ships of King James' navy, much reliance has been placed on a late 20th-century model of the *Michael* in the National Museum of Scotland although it does not appear to be based on contemporary records but depends heavily on a painting of 1520 of English war ships. Like Henry VIII's great ship, the *Henry Grace à Dieu*, the model is given four masts.¹⁰⁵ An image of a ship which can be identified as the *Michael* (the reverse image has St Michael slaying a dragon) does appear on a pattern gold coin of the end of James IV's reign. She is shown with high front and rear castles and three masts, each with a (fighting) top.¹⁰⁶ The symmetrical design should probably be interpreted as a symbol rather than an accurate representation.

Perhaps the best clue to the appearance of the *Michael* and the *Margaret*, if not the *James*, is a picture of the French warship of 700 tons,

¹⁰³ Macdougall, *James IV*, pp. 185-86. For Cairnburgh Castle see *Argyll Volume 3: Mull, Tiree, Coll & Northern Argyll* (Royal Commission on the Ancient and Historical Monuments of Scotland (Edinburgh: H.M. Stationary Office, 1980), pp. 184-190.

¹⁰⁴ Hutchinson, *Medieval Ships and Shipping*, p. 161. Macdougall, "The greatest scheip that ewer sailit", p. 42, postulates gun-ports in the *Michael* on the basis of an account for what he interprets as leather lining for them to prevent the woodwork being singed when the guns were fired. The account in question refers to 19 dakers (a daker was a set of 10 hides) put in the great ship to prevent her from firing (going on fire). See *TA*, vol., IV, p. 529.

¹⁰⁵ *A History of Seafaring, Based on Underwater Archaeology*, ed. G.F. Bass (London: Thames and Hudson, 1974), illustration 8 on pp. 240-41.

¹⁰⁶ I.H. Stewart, *The Scottish Coinage* (London, 1976), pp. 74 and 144.

the *Cordelière*, engaged in combat with an English ship, the *Regent*, off Brest in August 1512. The coloured drawing in the Bibliothèque Nationale shows a ship with three masts, each with a round top above which are topmasts with topsails. The hull has a prominent forecastle and stern-castle, the latter with a square end, perhaps to facilitate the mounting of guns firing to the rear. Both castles and all three tops are pavisaded with shields. Large guns are shown mounted on the stern-castle and in the waist, but also in gun-ports on a deck that runs beneath the castles.¹⁰⁷ There should be no surprise if the Scots' ships were very similar. After all, they were built by French shipwrights and depended on French know-how and materials.

1513

Letters were dispatched on 24 July 1513 commanding the host to muster. The next day the fleet set sail from Newhaven, and the following day a herald was sent to Henry VIII, by now with his army in France, with a message that was effectively a declaration of war.

The fleet, under the command of the experienced earl of Arran, consisted of the three 'capital' ships, the *Michael*, *Margaret* and the *James*, and the other eight ships that had just been loaded with supplies and victuals (Table 2). Of these, the *Bark of Abbeyfield* (*recte* Abbeville in France?) and the *Spanish bark* were royal vessels; the rest were probably hired.¹⁰⁸

The fleet appears to have sailed around the north of Scotland, perhaps aware of the English ships that lay in wait off the Downs. Robert Barton is reported to have sailed from Honfleur in Normandy by 6 June, heading north-westwards with a fleet of 12 small ships, but it is not known if he rendezvoused with Arran. The latter made an attack on Carrickfergus in Northern Ireland, probably as a preconceived part of a grand plan to distract Henry VIII from his invasion of France. After a return to the Clyde, the fleet then sailed for France where it was meant to combine with French ships from Brittany and Normandy in further war against the English, but all this came to naught and instead the ships lay idle at Honfleur in Normandy.¹⁰⁹

¹⁰⁷ *War with France*, frontispiece (BN MS fr 1672).

¹⁰⁸ *TA*, vol., IV, pp. 475, 460. A ninth ship ('the little ship') only sailed with the king on board as far as the Isle of May in the entrance to the Firth of Forth.

¹⁰⁹ *War with France*, pp. 120, 185-87; Pitsoctie, *Historie*, vol., I, pp. 256-57; 'The Historie of Sqwyer William Meldrum', lines 88-244, in D. Hamer (ed.), *The Works of Sir David Lindsay* (Edinburgh: Scottish Text Society, 1931), vol., I, pp. 148-152; *L & P*, vol., I, no. 1971.

Despite Pitscottie, there is no evidence that the *Michael* had a large complement of soldiers over and above her crew of 300. The ships were to be provisioned for 40 days and the figures for the range of food stuffs and drink supplied just before they sailed appear to show that there is a reasonable correlation between the number of crew listed and the quantity of food and drink. Table 2 lists the provisions of bread and ale since they are quantified and it is known that each man was allowed a loaf of wheat bread and a quart of ale per day. We may suppose that ‘sour bread’ (half wheat, half rye) was intended to substitute when the wheat bread ran out. On that basis it appears that the ships had a reasonable stock of food and drink for a month. The three capital ships also loaded supplies of biscuit which could have been used to feed other men not listed in the accounts. If their supplies of ale relate closely to their complements that would mean that the *Michael* sailed with about 346 men, the *Margaret* with about 284 and the *James* with about 248 men. The accounts do actually mention an extra 45 men, three pilots and two gunners supplied by the French for the *Michael*.¹¹⁰ A depletion in supplies as the result of the long sail to Carrickfergus goes a long way to explain why the fleet, returned to Ayr before finally embarking for France.¹¹¹ The Earl of Arran would have had no desire to face the same problems as the commanders of the English fleet in the Channel in 1512. They had considerable logistical problems and faced a major lack of morale among their men due to lack of provisions.¹¹²

Assuming that the Scottish capital ships ranged in size from about 500 to 1000 tons, crews in the region of 248 to 346 men were not very large by the standards of the day. An obvious comparison to make is with the English warship, the *Mary Rose*, of 500 tons, which had a crew of about 400 men.¹¹³ Robert Barton’s *Lion*, a ship of 300 tons, had a crew of 260 men that were provisioned by the French in 1513.¹¹⁴ Are we seeing from the contemporary documentation that the Scottish royal ships were undermanned? There were no doubt many experienced captains and crewmen in the Scottish ships but probably not nearly enough. Jacques Terrell had returned to France in early 1513 to try and recruit 80 mariners for the *Michael*, and it is very telling that Louis XII ordered the Scottish ships to be

¹¹⁰ *TA*, vol., IV, p. 487.

¹¹¹ The Exchequer Rolls record the cost of 46 marts supplied to the fleet from Bute when it was in the Firth of Clyde before heading off for France. *ER*, vol., XIV, pp. 20-21.

¹¹² *War with France*, pp. xxxviii-xli.

¹¹³ See <http://www.maryrose.org> (accessed 4 January 2013).

¹¹⁴ *James IV Letters*, no. 565.

supplied with an extra 400 men from Normandy when they were sitting at Honfleur in September 1513 waiting to be sent into action.¹¹⁵

The obvious opportunity for the combined Scoto-French fleet was to catch Henry VIII at sea when he attempted to return to England after his capture of Th rouanne in the Pas-de-Calais. Its attempt to do so in October was defeated by the weather.¹¹⁶

The host was ordered to muster at Ellem, although much of it may have assembled on the Burgh Muir of Edinburgh. A start was made on taking the guns out of Edinburgh Castle on 17 August and Norham Castle had been captured by the 28th. This artillery train was considerably bigger and more powerful than any previously fielded by James or his predecessors. It consisted of five cannons, two grose culverins, four culverin pikmoyens, six culverin moyens and probably other small guns besides. Its composition is indicative of the fact that first and foremost it was intended for battering down castles. This time the guns were drawn by oxen, many of which were supplied by the clergy and nobles. Each gun was equipped with ropes in front and behind to help pull it up-hill or stop it rolling away downhill. A single horse was harnessed with most of the teams of oxen to speed or direct their progress and there seems to have been a pool of 80 oxen looked after by four men which may have been intended as replacements or extras for the guns.¹¹⁷

The five cannon were drawn down from Edinburgh Castle on 17 August by a force of men to Saint Mary's Wynd, just outside the Nether Bow Port at the bottom of the High Street. Possibly the castle and town were too cluttered for the guns to be conveniently harnessed with their oxen. The next day they were *en route* to England, provided for as follows:

First cannon: with oxen belonging to the Captain of Edinburgh Castle, eight drivers and 20 workmen with pikes, shovels and spades.

Second cannon: with 36 oxen belonging to the king and the laird of Duns, nine drivers and 20 workmen.

Third cannon: with 36 oxen belonging to the prior of Whithorn and two West Country lairds, nine drivers and 20 workmen.

¹¹⁵ *War with France*, pp. 178-79, 187; *James IV Letters*, no. 527.

¹¹⁶ *War with France*, no. 96.

¹¹⁷ *TA*, vol., IV, p. 518.

James IV at Land and Sea

Fourth cannon: with 36 oxen belonging to the king, nine drivers and 20 workmen.

Fifth cannon: with 36 oxen belonging to the king and the provost of Coldstream, nine drivers and 20 workmen.

On 19 August the two grose culverins and four culverin pikmoyens were manhandled from the castle to Saint Mary's Wynd and the following day set off:

First grose culverin: with 36 oxen belonging to the king, nine drivers and 20 workmen.

Second grose culverin: with oxen belonging to the laird of Dalhousie, eight drivers and 20 workmen.

First culverin pikmoyen: with 16 oxen belonging to the king and a horse, four drivers and ten workmen.

Second culverin pikmoyen: with 15 oxen belonging to the king and the laird of Lochleven and a horse, four drivers and ten workmen.

Third culverin pikmoyen: with 16 oxen belonging to the king and a horse, four drivers and ten workmen.

Fourth culverin pikmoyen; with 16 oxen belonging to the prioress of Haddington and a horse, four drivers and ten workmen.

The other guns came after the culverin pikmoyens as follows:

First culverin moyen: with eight oxen belonging to the laird of Restalrig and a horse, two drivers with a man for the horse and six workmen.

Second culverin moyen: with eight oxen belonging to Andrew Aitoun and Robert Arnot and a horse, two drivers with a man for the horse and six workmen.

Third culverin moyen: with eight oxen belonging to the Laird of Kelly and a horse, two drivers with a man for the horse and six workmen.

Fourth culverin moyen: with eight oxen belonging to the Laird of Balgonie and a horse, two drivers with a man for the horse and six workmen.

James IV at Land and Sea

Fifth culverin moyen: with eight oxen belonging to the prior of New Abbey and a horse, two drivers with a man for the horse and six workmen.

Sixth culverin moyen: with eight oxen belonging to the king and a horse, two drivers with a man for the horse and six workmen.

A crane for mounting and dismounting the guns followed on, drawn by eight oxen and a horse with three drivers. There were also 28 horses with creels loaded with gunstones (cannon balls), 15 hired carts with powder, shot and other equipment, and two close carts. Robert Bothwick had 26 men under him carry his ramrods, Tom Barker the smith went with two servants and his equipment carried by six carriage horses, John Drummond the wright with his servants and there were at least 11 other gunners many with their own servants. There may also have been a considerable body of 'gentlemen volunteers', including the king's secretary, Patrick Paniter, and other workers were detailed to remain at home ready to prepare and send on further supplies to the army.¹¹⁸

It is not known what route the artillery took, but given that the first aim was the capture of Norham Castle and that the muster had been set for Ellem it is possible that the same route over the Lammermuirs was taken as in 1496. According to the English chronicler Hall the Scots crossed the Tweed on 22 August but presumably not with all their guns as most of these had only left Edinburgh two days previously. The castle is said to have surrendered in six days after the Scots had made three assaults, the walls having been raised by the Scottish artillery. Hall has it that the captain of the castle was compelled to yield since he had used up all his supplies of ammunition and arrows but according to the castle's owner, the bishop of Durham, James had besieged, assaulted and in a night of great storm scaled and won it (thus following the advice of Berauld Stuart in his *Treatise on the Art of War*). The lodgings inside were destroyed, the curtain walls knocked down and the gates and ordnance taken away, but the Scots made little impression on the great 12th-century keep.¹¹⁹

At the same time evidently as Norham was being assaulted that other important English fortress on the Tweed at Wark was also taken.¹²⁰ The Scots then moved on a few miles further to the south to take Etal and Ford,

¹¹⁸ *The Letters of James V*, ed. R.K. Hannay and D. Hay (Edinburgh, 1954), pp. 8-9; *TA*, vol., IV, pp. 515ff.

¹¹⁹ *Hall's Chronicle*, p. 557; *L & P*, vol., I, nos 2279 and 2284; d'Aubigny, *Traité sur l'Art de la Guerre*, p. 12.

¹²⁰ Pitscottie, *Historie*, vol., I, p. 262.

two other castles of some strength.¹²¹ Whereas in the raid of 1496 all the tower-houses in the northerly portion of the English East Marches had been destroyed now it was the turn of the larger castles. Only the town and castle of Berwick remained untouched.

Thus far James' expedition was a success. His artillery had performed admirably and speedily at Norham, if not elsewhere. But now an English army under the earl of Surrey was on its way north to seek revenge. James could have retreated before it in time-honoured fashion and left it to waste its energies on a retaliatory raid into Southern Scotland. The weather was wet and windy, producing conditions which were not ideal for campaigning and it is probable that Surrey would have had great difficulties in keeping his army together, especially since it had run out of its staple drink, beer. Surrey's greatest worry was probably that, despite his carefully laid plans, he would miss the Scots altogether and have to face accounting to his royal master for all the money spent on the expedition. He may not have expected that Norham would have fallen so quickly and he must certainly have been hampered by the appalling weather, but the fact that he only called for the muster of his troops at Newcastle on 1 September and then only took the field at Bolton near Alnwick on 5 September seems to compare unfavourably with the speed of the English response in 1496, 1497 and 1523. What is more, Bolton was little more than a good day's march from the Scottish position at Ford and it might therefore seem remarkable that it took a further four days for the two sides to close.

On 4 September, Surrey in his determination that James should not escape him without a fight, shrewdly sent him a challenge to battle from Alnwick, a challenge which James could not refuse if he wished to retain his prestige and self-respect. James, however, had no intention of playing into Surrey's hands and shifted himself to a commanding position within easy striking distance of the Border. Here on Flodden Edge he dug earthwork defences for at least some of his army – this, no doubt, on the recommendation of his French advisers - and awaited Surrey's arrival. Historians like Buchanan, with the benefit of hindsight, have made the king, acting on the ill-advice of the French consultants, go against the wishes of his nobles in striving for a pitched battle.¹²² It is possible, however, that even now he hoped to avoid a fight and retreat in time-honoured fashion. If this indeed was his intention it looked as if his strategy would meet with success as Surrey, only about six miles away from the Scots on 6 September, evidently had no desire to attack the Scottish position. Instead

¹²¹ Lesley, *History*, p. 93.

¹²² Buchanan, *History*, vol. II, pp. 252-55.

he wrote again to James the following day to invite him to come and fight in the plain to which James evidently replied that it was not for a mere earl to dictate to a king and that he would fight where and when he chose.¹²³

This is not the place to give a detailed account of the ensuing battle. The basic facts are that the Scots were positioned in a ‘fortified camp’ on a rising piece of round, Flodden Hill, facing east and overlooking the valley of the River Till. Surrey considered the Scottish position impregnable, and unable to tempt James down to the plain he engaged in a flanking movement round the Scottish position hoping to secure the neighbouring high ground of Branxton Hill to the north of the Scots’ position. Hall says the Scottish artillery fired harmlessly at the English on 7 September as they were encamped three miles away at Wooler Haugh.¹²⁴

The Scots may at first have been in some doubt as to whether the English would attack at all or whether they would go on into Scotland to ravage the Merse. When it became clear that they were aiming to occupy Branxton Hill James ordered his army to shift from its position on Flodden Hill to take up a new position on Branxton, thus denying it to the English. While James seems to have been able to make a reasonable job of repositioning his army, a difficult task for ill-trained troops, he probably did not have the same success with his artillery. It would have taken a considerable amount of time to hitch the guns to their oxen and thereafter have them hauled a distance of about a mile and a half to two miles across ground made boggy by the rainy weather. If James decided to move soon after eleven o’clock this allowed a good five hours for the manoeuvre. It must be emphasised once again that the Scottish guns were essentially a train of siege artillery and were not suitable for the rapid fire and quick manoeuvring necessary on a battlefield.

Be that as it may Lord Sinclair, master of the artillery, did succeed in getting his guns into action at the beginning of the engagement but apparently without making much of a hit on the advancing English. If the Scottish guns played little part in the battle it was a different matter with the English ones. The battle started with an artillery duel between the two sides in which the English guns started to sweep holes through the massed ranks of the battle led by James IV, precipitating the king’s decision to advance on the English lines. Both sides were at the time of the conflict of approximately the same size. Both had five battles or divisions, four of which engaged opposing unit. One Scottish battle led by Home and Huntly

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Laing, ‘A Contemporary Account of the Battle of Flodden’, p. 146.

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Hall’s Chronicle, p. 560.

totally routed the force led by Edmund Howard, while two of the others were broken up and defeated. That left the battle led by King James in person, opposed by the English unit commanded by Surrey. The Scots did not break but stubbornly fought on until nightfall. What had clearly not been predicted by the Scots or their advisers was that a unit of pikemen that held together could be stopped by a force armed with bills (long shafted weapons that could be used for cutting and stabbing). In the hand to hand fighting the Scots came off much worse than the English, a matter made a complete disaster by the fact that all the Scottish leaders from the king down, fighting in the forefront of the battle, were slain.¹²⁵

The aftermath

Flodden did not mark the end of the war with England. On the one hand, the English did not see that here was an opportunity they wished to pursue of subjecting Scotland to conquest. On the other hand, it took the Scots several years to give up on the idea that they could win worthwhile advantages by sending strong military expeditions into the north of England. Undoubtedly this was down more than anything else to the influence of one man, John Duke of Albany, who became governor of the kingdom for the infant James V. Albany had been raised in France and was virtually a Frenchman except in name. He was also a noted soldier whose reputation, gained in the wars in Italy, was already high before he set foot in Scotland.

Albany was unable to come to Scotland until 1515 but the Sieur de la Bastie was sent ahead to represent him and protect his interests. Before 1513/14 was out he had with Robert Borthwick, the master gunner inspected Edinburgh Castle, and made arrangements for it to be strengthened with trenches and bulwarks and provided with men and

¹²⁵

There are many detailed accounts of the battle of Flodden, 16th-century and recent, and, not surprisingly, a range of opinions on troop dispositions and what actually happened. There are no eye-witness accounts from the Scottish side to match that by one of the English commanders, Lord Thomas Howard. Still of importance is Mackenzie's *The Secret of Flodden*, published in 1931. Several modern accounts do not use the *Scottish Treasurer's Accounts [TA]* as a source for Scottish preparations for the campaign – hence the need for this paper. These other works include N. Barr, *Flodden* (Stroud, 2003), and J. Sadler, *Flodden 1513: Scotland's greatest defeat* (Oxford, 2006). For a useful general review of the battle and battlefield see the website maintained by the Battlefields Trust, at <http://www.battlefieldtrust.com> (accessed 6 January 2013). At the time of writing more and more interesting material is appearing on the website maintained by a body set up to commemorate the battle's 500th anniversary – <http://www.flodden1513.com> (Accessed 6 January 2013).

artillery. Albany arrived early in the summer of 1515, bringing with him the *Margaret* and the *James*. The *Michael* with its artillery remained in France and was sold to the French king.¹²⁶ The *Margaret* and *James* sink from view after this and clearly never had the opportunity to demonstrate the naval capabilities that James IV had expected.

Arrangements were made speedily to off-load the artillery from the Scottish ships at Dumbarton, at least 14 pieces of artillery, great and small, including two great cannon, and send it through to Edinburgh. These were probably the Scots' own guns. Albany himself brought several guns and there was much activity at Holyrood Palace that summer with craftsmen working on close carts, gun stocks and palyeons (tents). Pitscottie's statement that six cannon, six great field pieces and other small artillery, culverins, hagbuts and crossbows were brought with Albany at this time may not be very far off the mark.¹²⁷

Gun founding was recommenced in 1515 and there was the prospect of other guns from abroad. It was rumoured in England at the end of the year that certain large pieces of artillery being cast at Mechlin (now in Belgium) were for Albany and an English intelligence report of about the same time suggested quantities of arms and men, including 22 pieces of artillery, would be sent to Albany by Francis I.¹²⁸

Of James IV's gunners only Robert Borthwick, Robert Herwort and Hans are known to have remained in service, along with other craftsmen like John Drummond the wright and Robert Scott the smith. Upwards of 15 new gunners were employed by Albany immediately after his coming, many of whom do not seem to have been of Scottish extraction. Albany made one of his Frenchmen, Jehannot de Lavall, master of the artillery in place of Lord Sinclair, who had died at Flodden, and another Frenchman, Captain John Bouskat, acted as commissioner of the artillery, a new post in Scotland.¹²⁹ Although both Lavall and Bouskat seem to have returned with Albany to France in the summer of 1517, never to return, Albany's administration seems to have put the gunnery establishment on a firm footing for the future. His own castle of Dunbar, of great strategic

¹²⁶ *Acts of the Lords of Council in Public Affairs 1501-1554* [hereafter *ADCP*], ed. R.K. Hannay (Edinburgh, 1932), pp. 11 and 83; *TA*, vol., V, p. 16; *L & P*, vol., II, no. 3330.

¹²⁷ *TA*, vol., V, pp. 14-15, 17 and 38; Pitscottie, *Historie*, vol., I, p. 288.

¹²⁸ *L & P*, vol., II, nos 1478 and 3048.

¹²⁹ *TA*, vol., V, pp. 19 and 28-38; *Registrum Secreti Sigilli Regum Scotorum*, vol., I, no. 2756.

importance guarding a major east coast harbour on the way to Leith, was greatly strengthened by the building of a sophisticated block-house defended by guns positioned in casemates.¹³⁰

Albany's visit to France was only intended to be a short one but for political reasons beyond his control he was not able to return again for several years. Francis I had no wish that he should lead Scotland on a pro-French path that would antagonise Henry VIII of England. Albany returned again briefly in 1521 to pursue his pro-French policy and after a further visit to France to whip up support, he landed for the last time in September 1523, in time to lead a military campaign, not the first of his governorship. This one was against the English, at least partially in retaliation for an English attack that summer on Jedburgh.¹³¹

From France he shipped with him a force of mercenaries, horses, artillery and other equipment, variously reported. On 27 September Surrey, the English commander on the East Marches, wrote to Wolsey that he had been informed that he had brought 8,000 men and 600 horses of which 200 were barded (armoured). About a week later a more definite report was got from the prioress of Coldstream, who had been to see for herself, that there were 4,000 foot and 4,000 horse, among the former being 1,000 culveriners, hagbutters and crossbowmen, the rest being armed with long pikes, and Surrey believed the substance of this report to be accurate. Another informant mentions 16 great guns called cannons, 900 serpentines and falcons (an obvious exaggeration), and gunpowder to the value of 10,000 crowns weight. In a letter to Surrey dated 29 September Queen Margaret gives the French as 4,000 foot, 100 men of arms and 80 barded horses. She lists the guns as 28 cannons and four double cannons which were bigger than any taken to Flodden, along with much smaller artillery, and adds the interesting information that Albany also had 'gret pavays gangan apon vhylyz the artylery to schwt and to brek the hostys syndre; and of thys he hath mony and every een of them hath tway scharpe swordys befor them that nen may tawsche them'. Another spy described these contraptions soon afterwards as carts with swords upon either side, and barded horses to draw them, and Sir William Bulmer, after initially being sceptical of their existence, was able to report to Surrey on 20 October that there were six

¹³⁰ I. MacIvor, 'Artillery and Major Places of Strength in the Lothians and the East Border, 1513-1542', in D.H. Caldwell (ed.), *Scottish Weapons & Fortifications 1100-1800* (Edinburgh: John Donald Publishers, 1981), pp. 117-119.

¹³¹ *TA*, vol., V, p. 223.

carts, covered with steel and brass, with eight men in each, and certain guns, 'and is carried with barbed horses, and goeth backward'.¹³²

These carts of Albany's were evidently something rather more than the carts of war used by the Scots from the 1450s onwards; in fact, they seem to have been veritable fore-runners of the tanks of 20th-century warfare. Albany may have seen such carts while serving in the wars in Italy. The exact nature of Albany's carts is difficult to gauge from the contemporary descriptions but if they took eight men each they must have been quite large. The mention of pavises (shields) and the steel and brass suggests that they were closed in, while Queen Margaret's description of the swords before, taken in conjunction with Bulmer's report gives the impression that the carts were pushed from behind by their horses, rather than pulled.

Four places were chosen for musters of the fencibles on 20 October. Huntly and the men of the north were to gather at Stirling; Argyle and the Highlanders at Glasgow; Lennox and the West Country folk at Lanark, and Arran with the people of the south-east regions at Lauder. Albany meanwhile, with his French troops was at Edinburgh. He also intended that a feint should be made on the West Marches by Lord Maxwell and he kept the English alarmed by much talk of a descent upon their coasts by Richard de la Pole, the exiled duke of Suffolk. The artillery which Albany had brought from France had to be got across country from Glasgow, and the clergy had been ordered to provide oxen, or money in lieu, for pulling the guns. The burghs were to provide pioneers to serve with the artillery along with horses for the carriage of food and other supplies.¹³³

On the 18th and 19th the guns and the French mercenaries set off from the Burgh Muir, stopping at Newbattle on the 24th and then going south to Melrose via Soutra and Lauder. Albany meanwhile took the road to Haddington on 22 October, probably to confer with Captain Gonzolles in his castle at Dunbar about the shipping of other guns from there to Eyemouth. It was only, however, on 27 October at Melrose, a good 18 miles from his objective, Wark Castle, that Albany mustered all his forces, and another three days passed before Wark was fired upon from the Scottish side of the Tweed. Albany had managed to keep his adversaries guessing till quite late on what he intended to do. As late as 23 October Surrey was still

¹³² *L & P*, vol., III, nos 3365, 3368, 3403, 3446 and 3451.

¹³³ *ADCP*, pp. 181 and 185; *TA*, vol., V, pp. 225, 226 and 228; *L & P*, vol., III, nos 3365, 3368, 3409, 3434, 3438, 3445, 3451 and 3456.

in considerable doubt as to whether to expect an attack on the east or the west.¹³⁴

Albany had had no easy task in getting so far. It was later in the year than was normal for prosecuting large scale campaigns, and over and above that the weather was especially bad with snow and heavy rain causing the rivers to flood.¹³⁵ He also experienced some difficulty or reluctance in getting his force together, especially the contingents of Lennox, Huntly and others from the north, but he was no doubt anxious to press on as all the time his French troops were costing money to feed. Surrey thought it possible that he was waiting for the English army to disband before invading England but the bad weather, problems of gathering and keeping together his forces and transporting his artillery may have had as much as anything to do with his apparent slowness. On 30 October he had good cause to be 'in a marvellous great fume all day', because the axletrees of five or six of his great guns broke.¹³⁶

For the siege of Wark Castle Albany is said in a contemporary English account to have had a great gun (Mons?), eight cannons, two double cannons and 24 falcons and serpentines and there may have been other guns besides from Dunbar Castle.¹³⁷ There was good reason in going against Wark as it had just recently been rebuilt and refurbished after its destruction by the Scots in 1513. Basically it consisted of a massive artillery tower with two courtyards alongside on the edge of the river, and with the new bulwarks added hurriedly by Richard Cavendish, the master of the ordnance at Berwick not long before the arrival of the Scots, Surrey reckoned it could stand a ten days' siege.¹³⁸ This was probably the most that any castle of strength could be hoped to last provided the enemy was capable of mounting sufficient batteries against it. A major problem with Wark, however, was that the donjon or artillery tower, had shallow foundations and could be easily mined.¹³⁹ In the even the Scots did not have an opportunity to do so.

The historian George Buchanan as a young man was actually present at the siege of Wark Castle and describes it thus in his History:

¹³⁴ *L & P*, vol., III, nos 3458 and 3499.

¹³⁵ *L & P*, vol., III, no. 3421.

¹³⁶ *L & P*, vol., III, nos 3435, 3460, 3467, 3468, 3477, 3478 and 3489.

¹³⁷ *L & P*, vol., III, no. 3489.

¹³⁸ *L & P*, vol., III, no. 3365.

¹³⁹ *L & P*, vol., III, no. 3472.

After refreshing his soldiers a few days, and being joined by the Scottish forces, the regent, on the 22nd October, marched towards the borders, but when he was about to enter England, and had already led the greater part of his troops across the wooden bridge near Melrose, the Scots, pretending the same excuses as in the former expedition to Solway, refused to advance into England, and those who had crossed, repassing the river, returned by the same way. On which, he encamped a little further down on the left bank of the Tweed, and prepared to besiege Wark castle, situate on the opposite side. In the meantime, a party of horse, sent across the river, shut up all the passages, lest any relief should be introduced, and wasted all the adjacent country. Wark castle consists of a strongly fortified, and very high tower, in the inner court, which is surrounded by a double wall. The outer wall encloses a large space of ground, whither the country people, in time of war, are accustomed to seek refuge, together with their cattle, and the produce of their farms. The inner encloses a much narrower space, but is surrounded by a ditch, and better fortified with towers raised upon it. The French took possession of the exterior court by assault, but the English setting fire to the barns and straw, they were forced by the flames and the smoke, to evacuate it. Then, the next two days they battered the inner wall with their cannon, and when they had effected what they thought a practicable breach, the French mounted with the greatest ardour, but being exposed to every missile weapon from the tower, which still remained entire, after losing a few men, they were beat back, and retired to the army, on the other side of the river.

The regent, when he perceived the Scots averse to the war, and at the same time receiving certain information that the English were advancing with an army much more numerous than his own, according to their own writers, fifty thousand men, besides six thousand in garrison at Berwick in the vicinity, he decamped on the 11th November, and marched to Eccles, a monastery about six miles distant, and thence, at the third watch, by a nocturnal march, he retreated to Lauder, during which, both men and horse were greatly annoyed by a severe fall of snow.¹⁴⁰

Buchanan's account can be balanced by the official English report by Surrey in a letter to Henry VIII of 3 November. According to this Albany came with a great puissance to Wark on Saturday night (31 October) and shot all Sunday and Monday. Word being brought to Surrey at Holy Island, at 7.00 pm on Sunday, he sent letters immediately to his captains to meet him at Bar Moor Wood on Monday; which they did. At 3.00 pm on

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Buchanan, *History*, vol., II, pp. 287-288.

Monday, the Tweed being too high to ford, Albany sent 2,000 Frenchmen in boats to assault the place. They entered the basecourt, and were kept back for an hour and a half by Sir William Lisle, captain of the castle and 100 men. At length they gained the inner ward, but were immediately attacked by Lisle, and driven out of both the inner and outer wards, and ten persons slain. Surrey received notice at 3.00 am on Tuesday morning from Lisle that he could not keep the castle without help and advanced to his rescue at break of day; but Albany, hearing of it, retreated with his whole force.¹⁴¹

This report differs from Buchanan's mainly in not mentioning an initial assault on the outer ward, presumably on the Saturday before the artillery bombardment began. Buchanan's date of 11 November for Albany's departure is surely wrong. The Scottish expedition lasted fifteen days from the muster on 20 October to the departure from Wark on Tuesday the third, but it must be remembered that it followed hard on the heels of the hosting called for 22 September to deal with Surrey's invasion of the Borders and it is probable that Albany could not have kept his force together much longer, either legally or through any sense of duty on the part of the nobles and their followings. Buchanan's comments on the unwillingness of the Scots to advance into England are very convincing.

Conclusions

Albany returned to France soon after this failure at Wark and that effectively marked the end of Scottish ambitions to win an advantage over the English by open assault and battery of their frontier fortifications. It was a strategy that looked as if it might promise good results in 1496, was disappointed in 1497 by the failure to take Norham Castle, and proved disastrous in 1513 and 1523. The succeeding administration under the Earl of Angus was pro-English.

There are two questions we wish to finish with here; Was the Scottish military and naval strategy of James IV and Albany against England sensible? And did James IV deserve to lose (and die) in 1513? Several answers could no doubt be suggested for why the Scots adopted their siege strategy but the main one of interest to us here is, quite simply, the predictability of the effect of guns by the reign of James IV. If sufficient guns could be brought to bear against a fortification for a sufficient length of time that fortification would inevitably be battered into a state of indefensibility. The Scots, anxious not to be left behind by their neighbours, eagerly acquired the guns, and facing them across their southern border was no fortification which, when effectively attacked, could be expected to hold

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L & P, vol., III, no. 3506.

out longer than a few days. With sufficient manpower to blockade the chosen strongpoint and prevent relief from the neighbouring castles the Scots could hope to capture and demolish their objective and withdraw before a relief army arrived on the scene. If this all took place in late summer or autumn the lateness of the year might deter the English from doing too much damage in Scotland in revenge. While Berwick was not actually attacked at this time the successful reduction of English strongholds in the East Marches would have the effect of isolating it and it can hardly be doubted that its ultimate recovery was a major foreign policy objective of James IV and Albany. The recovery of Berwick, and other political gains apart, the strategy had the very obvious advantage that it avoided pitched battles which the English were more likely to win through greater numbers and better training. Even if they lost, their resources were such that the effect was not likely to be so disastrous as a Scottish defeat in which the entire national fighting force and all the available money was invested.

This strategy only achieved a significant measure of success in 1496 when Heaton Castle was destroyed and the host had time to withdraw before the arrival of the English army of relief. We have estimated above that the Scottish guns could only have been brought to play against Heaton Castle for four days at most and in 1497 Norham Castle was probably not bombarded for any longer. In 1513 Norham fell within six days and James, with greater resources than on either of the previous two occasions stayed to do more damage. In 1523 Albany only shot at Wark castle for two days.

Even if the English were slow to send a relief force it is evident that the Scots could not keep the field on the English side of the border for longer than a very few days. Even in 1513, when arguably the biggest national effort was made, the army stayed only from 22 August to 9 September. In fact, English intelligence of the Scottish intended hostilities was normally good and a relief army could be ready to face the intruders within a few days. Only in 1513 were the English surprisingly late in the field. Thus, the very few days the Scots were likely to have for bombarding an enemy fortress after the time taken to get their men and guns to the Border and before the money ran out and before the time came for the host to be disbanded were likely to be made even fewer by the appearance of an English army as in 1523. The Scots may have been following the advice of d'Aubigny, incorporated in his treatise, not to wait for the arrival of an army of relief as to be caught at a siege was already to be half beaten.¹⁴²

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d'Aubigny, *Traité sur l'Art de la Guerre*, pp. 12-13.

This strategy, which was so expensive to the Scots and which failed to produce any lasting advantages, could only be pursued in 1523 thanks to substantial French aid in the form of mercenary troops and money payments to the nobles. Its failure in that year did not so much discredit Albany as a military leader (he went on to serve the king of France well in the Italian Wars) as kill any remaining enthusiasm for such warfare against England.

James IV was playing to Scottish strengths in creating a naval force. His sea captains had demonstrated how with their own ships and resources they could be a much feared and effective force at sea. A potentially hostile England could readily maintain a stranglehold on Scottish communications with the Continent. At the very least having a small fleet of royal ships which matched or exceeded the size of English warships could be seen as a wise precaution. We have no way of assessing whether the *Margaret*, *Michael* and *James* were good ships or not.

The costs of acquiring and maintaining an artillery train and warships were very large. The failure of the Scots in 1513 at least brought to an end massive outlays in money on military and naval objectives which may not have been sustainable for much longer. The Scots were very dependent on French advice, know-how and money and this was one of the main factors that made it easier for James IV to sign up for war on land and sea in support of Louis XII. It is difficult to see what advantages even outright success on all fronts would have brought James except prestige and just the possibility of the furtherance of his crusading ambitions. It would certainly have achieved the increased enmity of Henry VIII.

Accepting that the Scots were intent on an ambitiously aggressive military strategy by land and sea, we should perhaps admire the apparent efficiency and flare they demonstrated in creating an artillery train and fleet and in mobilising both of them for campaigns. Through French support James IV and Albany could access and benefit from the most up-to-date technology and developments in Europe. Mistakes were certainly made and there were undoubtedly many shortcomings. One of the most obvious ones appears to be the lack of attention given to training the fencibles in the use of pikes. It would be rash, however, to pin the whole blame for the disaster at Flodden on this one defect.

Another clear mistake in 1513 seems to be James' determination to wait for battle with Surrey. Whether or not he fought and won it is unlikely that at this stage in the year it was going to make much difference to the course of events in France. Given that he had decided to fight, perhaps the best conclusion from an assessment of his resources and preparations is that

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he was unfortunate to suffer such a devastating defeat. Similarly his ships were unlucky to have been prevented by bad weather from making a worthwhile contribution. Even the greatest of commanders are often dependent on good fortune. James IV does not belong in that category and had no luck when it mattered.

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Tables

GUN	Weight	Calibre	Shot weight	Horses (oxen)	Max range
	lbs (kgs)	ins (mm)	lbs (kgs)		yds (m)
Double cannon	5400	8	66	21	1500
	-2454.55	-203	-30	-36	-1371.6
Cannon	3800	6.5	33	17	1700
	-1727.27	-159	-15	-36	-1554.48
Grose culverin		4.67	16		2000
		-118	-7.28		-1828.8
Culverin pikmoyen		3.5	6	1 + (16)	1500
		-89	-2.73		-1371.6
Culverin moyen	870	2.75	3	7	1300
	-395.45	-70	-1.36	1 + (8)	-1188.72
Falcon	750	2.33	2	4	1100
	-340.91	-59	-0.91		-1005.84
Hagbut of crok		1			
		-25			

Table 1, Artillery used by the Scots in the reign of James IV with suggested specifications based on contemporary documentation and early gunnery manuals

SHIP	MARINERS	GUNNERS	VICTUALS no of men	Loaves of wheat bread	Loaves of sour bread	Biscuit	Ale,
	(& wrights)						quarts of
The Michael	293	7		4700	10000	10000	13872
The Margaret	89	4		5000	4800	5000	11384
The James	56			3720	770	5000	9936
Bark of Abbeyfield	40		80	2000			2880
John Barton's	40		60	1500			2160
Spanish bark	40	1	60	2000			2880
William Brownfield?	40			800			
Chalmer's bark			60	1500			2160
Bark Mytoun	2		130	*			*
The Mary				1000			1728
The Crown				300			576

Table 2, Ships of the Scottish fleet in July 1513, based on contemporary victualling records.

* Supplied with bread and ale for 130 men for 40 days