

THE USE OF GUNPOWDER WEAPONS IN THE WARS OF THE ROSES

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Among historians of medieval military technology, there is little doubt that the perceived "lack of use" of gunpowder weapons by all sides during the Wars of the Roses poses several problems. John Gillingham, for one, blames this lack of gunpowder weaponry use on the lack of sieges during the Wars, sieges being that military activity in which guns had begun to play a pivotal role in continental warfare of the same period. He writes:

yet for all the growing importance of [gunpowder] artillery, it remains true that this arm played only a minor role in the campaigns of the Wars of the Roses. The reason for this was the fact that in England battles could be decisive. Once the enemy's forces had been cleared from the field, his castles and towns proved relatively easy to capture.¹

Anthony Goodman counters this by admitting that there is sufficient evidence to recognize that these weapons were used and, on occasions, were used effectively. Indeed, he admits, "Their presence may have been particularly useful in steadying hastily organized men". Still, Goodman concludes, the use of gunpowder weapons in the Wars of the Roses was limited by the nature of the war itself:

"... since armies were assembled in haste and on the move to deal with swiftly developing crises, the time factor probably made it difficult to assemble a formidable ordnance train . . ."²

Before criticizing these statements, however, it should be noted that both of these renowned authors of superb military histories on

¹ John Gillingham, *The Wars of the Roses: Peace and Conflict in Fifteenth-Century England* (Baton Rouge, 1981), p. 27, his discussion on gunpowder weapons is found on pp. 16-30.

² Anthony Goodman, *The Wars of the Roses: Military Activity and English Society, 1452-97* (London, 1981), p. 173. Goodman's discussion on gunpowder weapon use during the Wars of the Roses is found on pp. 170-74. See also Charles Ross, *The Wars of the Roses* (London, 1976), pp. 112, 116 and, O.F.G. Hogg, *English Artillery, 1326-1716* (London, 1963), pp. 208-09.

the Wars of the Roses are writing in relative terms. They are comparing the use of gunpowder weapons by the English in their fifteenth-century civil wars with the more "modern" use of guns in continental warfare during the same century and even with the perceived notion that, during the fourteenth century, England had been the most progressive inventor and innovator of gunpowder weaponry technology. This comparison, coupled with the current military historical fad, the Military Revolution thesis, which holds that the movement from the medieval to the early modern in warfare was due to the advent and proliferation of gunpowder weapons,³ has thus led to a depiction of the use of gunpowder weapons during the Wars of the Roses as "backward", making England technologically inferior to the rest of Europe, a situation which would not change until the end of the sixteenth century, when England's gunpowder weaponry superiority would once again be felt with the defeat of the Spanish Armada.⁴

The problem with these comparative conclusions is that, even if sound, and there is some question about that, they are based only on statistical explanations, numbers of guns, engagements in which they were used, engagements in which they were used in victory, etc., and not on the reasons for the difference in use, either by

³ The Military Revolution thesis originated with Michael Roberts's 1955 lecture at Queen's University and was printed the next year as a pamphlet under the title *The Military Revolution, 1560-1660* (Belfast, 1956) and later reprinted in a collection of Roberts's articles, *Essays in Swedish History* (London, 1967), pp. 195-225. Geoffrey Parker initially criticized the Military Revolution thesis in "The 'Military Revolution', 1560-1660—a Myth?" *Journal of Modern History* 48 (1976), 195-214, but later reversed himself with *The Military Revolution: Military Innovation and the Rise of the West, 1500-1800* (Cambridge, 1988), which has now appeared in a second edition (1995). These works have inspired, among others, Brian M. Downing, *The Military Revolution and Political Change in Early Modern Europe* (Princeton, 1992); Weston F. Cook, Jr., *The Hundred Years War for Morocco: Gunpowder and the Military Revolution in the Early Modern Muslim World* (Boulder, 1994); David Elis, *The Military Revolution in Sixteenth-Century Europe* (London, 1995); and Clifford J. Rogers, ed., *The Military Revolution Debate: Readings on the Military Transformation of Early Modern Europe* (Boulder, 1995); and Christopher Storrs. For attacks on this thesis see, Bert S. Hall and Kelly R. DeVries, "Essay Review—The 'Military Revolution' Revisited", *Technology and Culture* 31 (1990), pp. 147-54; Bert S. Hall, *Weapons and Warfare in Renaissance Europe: Gunpowder, Technology and Tactics* (Baltimore, 1997); Kelly DeVries, "Gunpowder Weaponry and the Rise of the Early Modern State", *War in History* 5 (1998), pp. 127-45; and Kelly DeVries, "Catapults Are Not Atomic Bombs: Towards a Redefinition of 'Effectiveness' in Premodern Military Technology", *War in History* 4 (1997), pp. 475-91.

⁴ This thesis is put forth in, for example, Colin Martin and Geoffrey Parker, *The Spanish Armada* (London, 1988).

fourteenth-century English armies or by other fifteenth-century continental armies. The reasons for this difference in use were not the lack of sieges nor the nature and speed of the raising of Wars of the Roses armies, but the Loss of centralized control over these weapons, a control which had existed in England during the fourteenth century, and a rise of local control in its place.

During the fourteenth century, while continental gunpowder holdings were largely in local control,⁵ England's gunpowder weaponry never fell under a similar local control, but was always exclusively a royal possession. It is perhaps fitting, although undoubtedly only a coincidence, that the first "trustworthy" source for a gunpowder weapon, a manuscript illumination painted in London c. 1326, is found in a treatise celebrating the rule of a powerful royalty, Walter de Milemete's *De notabilibus, sapientiis et prudentiis regum* (Concerning the Majesty, Wisdom and Prudence of Kings).⁶ But it is really to King Edward III that credit for the royal domination of gunpowder weapons in England should be given, for it is he who, it appears, was the first medieval sovereign to foresee the future uses of guns, as he stockpiled a number of the relatively new weapons at the Tower of London, at Dover Castle, and at the recently constructed castle of Queenborough.⁷ Edward also used these weapons in his frequent conquests of the Low Countries and France during the early part of the Hundred Years War. They appeared at the sieges of Cambrai in 1338, of Tournai, Quesnoy, Mortagne, Saint-Amand, and Marchiennes in 1340, of Rennes and Hennebont in 1342, of Calais in 1346-47, of Carcassonne in 1355, of Saint-Valery in 1359,

⁵ See DeVries, "Gunpowder Weaponry and the Rise of the Early Modern State", pp. 130-35.

⁶ M.R. James, ed., *The Treatise of Walter de Milemete: De notabilibus, sapientiis, et prudentiis regum* (London, 1913), p. 140. See also David C. Nicolle, *The Arms and Armour of the Crusading Period, 1050-1350* (White Plains, 1988), no. 976; Philippe Contamine, *War in the Middle Ages*, trans. M. Jones (London, 1984), p. 139; R. Colman Clephan, "The Ordnance of the Fourteenth and Fifteenth Centuries", *Archaeological Journal* 68 (1911), p. 57; J.R. Partington, *A History of Greek Fire and Gunpowder* (Cambridge, 1960), pp. 98-100; W.Y. Carman, *A History of Firearms from Earliest Times to 1914* (London, 1955), pp. 17-18; and Kelly DeVries, "A Reassessment of the Gun Illustrated in the Walter de Milemete Manuscript", (forthcoming). On the treatise's purpose, see Michael Michael, "The Iconography of Kingship in the Walter de Milemete Treatise", *Journal of the Warburg and Courtauld Institutes* 57 (1994), pp. 35-47.

⁷ Clephan, p. 66, and T.F. Tout, "Firearms in England in the Fourteenth Century", *English Historical Review* 26 (1911), pp. 666-702.

and of Bourdeilles in 1369;⁸ they also undoubtedly were used by Edward at the battle of Crécy in 1346.⁹ Edward further felt that it was important to keep his possessions on the continent, once obtained, well outfitted with gunpowder weapons. He even appointed a royal receiver for the duchy of Brittany to oversee the procurement and placement of guns throughout the duchy.¹⁰ Finally, Edward also set about converting several vulnerable fortifications in England to more effective defence against gunshot by piercing them with gunports, a practice continued by his grandson, Richard II; Quarr Abbey on the Isle of Wight, Queenborough Castle, Asseton's Tower at Porchester, Carisbrooke Castle, the Canterbury town wall, Cooling Castle, the Southampton town wall and castle, Saltwood Castle, the Norwich town wall, Dover Castle, Bodiam Castle, and the Winchester town wall all received gunports by 1390.¹¹

Richard II, despite a reputed dislike for the military arts, also carried on the gunpowder weaponry programme begun by his grandfather, continuing to increase the stores of gunpowder weapons available in England and in English possessions on the continent.¹² Richard is also credited with the first royal appointment of a "master of cannons" in England in 1386, although Edward III, unknown to us, may have preceded him with such an appointment.¹³ Finally, it

⁸ On the sieges of Cambrai, Tournai, Quesnoy, Mortagne, Saint-Amand, and Marchiennes, see Jean Froissart, *Chroniques*, 14 vols., ed. S. Luce et al. (Paris, 1869–1967), II: 14, 64. On Rennes and Hennebont, see Froissart, *Chroniques*, II: 144. On Calais, see Tout, "Firearms in England", pp. 673–74, 688–89. On Carcassonne, see Froissart, *Chroniques*, IV: 168. On St. Valery, see Froissart, *Chroniques*, V: 356. And on Bourdeilles, see Froissart, *Chroniques*, VI: 338.

⁹ See Kelly DeVries, *Infantry Warfare in the Early Fourteenth Century: Discipline, Tactics, and Technology* (Woodbridge, 1996), p. 167. See also Alfred H. Burne, *The Crecy War* (London, 1953), pp. 192–202. Henri de Wailly, *Crécy, 1346: Anatomy of a Battle* (Poole, 1987), pp. 66–67, argues unconvincingly that gunpowder weapons were not used at Crécy.

¹⁰ See Michael Jones, "The Defence of Medieval Brittany: A Survey of the Establishment of Fortified Towns, Castles and Frontiers from the Gallo-Roman Period to the End of the Middle Ages", *Archaeological Journal* 138 (1981), pp. 151, n. 1, 154–55, 163.

¹¹ Kelly DeVries, "The Impact of Gunpowder Weaponry on Siege Warfare in the Hundred Years War", in *The Medieval City Under Siege*, ed. I.A. Corfis and M. Wolfe (Woodbridge, 1995), pp. 233–36.

¹² Tout, "Firearms in England", pp. 676–78, 681–83, and Thomas Rymer, ed., *Foedera*, VII: 622.

¹³ *CCR*, 1385–9, pp. 162–63. On Edward's artillerymen see Tout, "Firearms in England", pp. 679–80.

is Richard who may have outfitted his army with the first handguns.¹⁴

Richard's overthrow by his cousin, Henry IV, brought about what some call the initial phase of the Wars of the Roses, and yet surprisingly Henry seems not to have used his gunpowder artillery stores, which appear to have remained intact after Richard II's demise, on rebel Englishmen. Only in the campaign against York, Warkworth, and Berwick in 1405-6 did Henry take gunpowder weapons, and then they were not numerous and possibly not even discharged.¹⁵ Instead, records of Henry's guns show that he was only interested in using these weapons to protect his marches in England, both Scottish and Welsh, and in ensuring the continued guardianship of English possessions in France. He also seems to have been unable to increase his gunpowder weapon holdings in the manner of Richard II and Edward III, although why this was so, for the moment, remains a mystery.¹⁶

Henry V made up for his father's gunpowder weaponry shortcomings almost immediately after his accession to the throne. Preparing for two years for an invasion of France, the new English king constructed and gathered together an impressive artillery train.¹⁷ There is no extant account of how many guns actually accompanied Henry on his attack of France in 1415, but their presence was certainly felt at Harfleur, as that fortified town fell with relative ease to the English king;¹⁸ other gunpowder weapons accompanied Henry to the battlefield of Agincourt, although their presence was less decisive there.¹⁹ Henry continued to construct and use gunpowder weapons even after the victory at Agincourt, and this undoubtedly made a difference in the

¹⁴ P.R.O. E101/400/23. See also Tout, "Firearms in England", pp. 678, 684-86.

¹⁵ On the campaign against York, Warworth and Berwick in 1405-6, see James Hamilton Wylie, *The History of England under Henry IV*, 4 vols. (1894-1929; rpt. New York, 1969), II: 246-73.

¹⁶ See Wylie, *History of England under Henry IV*, II: 7, 101, III: 57-58, 64, 106-07, 112, IV: 254, and Richard Brooke, *Visits to Fields of Battle, in England of the Fifteenth Century* (London, 1857), pp. 221-23.

¹⁷ Brooke, pp. 223-24; Rymer, *Foedera*, IX: 160; *CPR, 1413-16*, pp. 92, 292; Alfred H. Burne, *The Agincourt War* (London, 1956), p. 34; James Hamilton Wylie, *The Reign of Henry the Fifth*, 3 vols. (Cambridge, 1914-1929), I: 447-48, 480; and C.T. Allmand, *Henry V* (Berkeley, 1992), p. 216.

¹⁸ Burne, *Agincourt War*, pp. 42-46; Wylie, *Reign of Henry V*, II: 33-38; Allmand, *Henry V*, p. 216; Brooke, *Visits to Fields of Battle*, pp. 224-25; M.G.A. Vale, *English Gascony, 1399-1453* (Oxford, 1970), p. 75 n. 3; C.T. Allmand, *Lancastrian Normandy, 1415-1450* (Oxford, 1983), p. 9.

¹⁹ Wylie, *Reign of Henry V*, II: 159-60 and Allmand, *Henry V*, p. 212.

victories against Boulogne in 1416, Caen in 1417, Falaise, Domfort, Cherbourg, Louviers, and Rouen in 1418, Montereau and Melun in 1420, Alençon, Chartres, and Saint-Riquier in 1421, and Meaux and Saint-Valery-sur-Somme in 1421.²⁰

During the early part of Henry VI's reign, the gunpowder artillery policies of Henry V were continued. Evidence of the construction of gunpowder weapons in England and their transportation to the continent, as well as evidence of an extensive English artillery organization in France affirms the continued belief of Henry VI's court that gunpowder weaponry was needed to preserve the foreign holdings of the crown.²¹ Two recently discovered documents should assist in understanding the artillery program in the early years of Henry VI's reign. One (PRO, E101/51/27), dated May 6, 1428, instructs John Parker of Cheshut to construct cannons and gather stone, iron and other materials for the repair of cannons "beyond the sea", and the second (PRO, E101/52/3), is written from France early in 1429 by the same John Parker, indicating where he had taken these weapons.

But soon this royal interest in gunpowder technology began to wane. At least some part of this can be attributed to the losses of English lands in France and with them the losses of gunpowder weapons. Therefore, after 1435, when Philip the Good of Burgundy broke his alliance with England and started to support the French in the war, it was to be expected that the English could not hold on to their continental possessions much longer. In fact, they were effectively off the continent by 1453 (although they hung onto Calais for another hundred years).

²⁰ On Henry's conquest of Normandy in 1416-22 and the use of gunpowder weapons there, see Richard A. Newhall, *The English Conquest of Normandy, 1416-1424: A Study in Fifteenth-Century Warfare* (New Haven, 1924); Burne, *The Agincourt War*, pp. 107-74; Wylie, *Reign of Henry V*, II: 329-20, III: 58-59, 70-71, 107-10, 113, 119-35, 209, 212, 313, 317, 334, 340-50, 412; Brooke, *Visits to Fields of Battle*, pp. 226-27. Allmand (*Henry V*, p. 215) writes about the use of the gun by Henry: "Apart from the bow at Agincourt, the weapon which made the biggest impact on the war was the cannon . . . Henry, as the aggressor, had the full weight of cannon behind him, and both he and his brother, Gloucester, were to use it to good effect".

²¹ Brooke, pp. 228-32; Goodman, pp. 164-65; *CPR*, 1422-29, pp. 493-94; *CPR*, 1429-36, p. 44; C.T. Allmand, "L'artillerie de l'armée Anglaise et son organisation à l'époque de Jeanne d'Arc", in *Jeanne d'Arc: une époque, un rayonnement*, Colloque d'histoire médiévale, Orléans--Octobre 1979 (Paris, 1982), pp. 73-83; and Paul Le Cacheux, ed., *Rouen au temps de Jeanne d'Arc et pendant l'occupation Anglaise (1419-1449)* (Rouen, 1931), pp. 132-46, 347-48.

To this time in the history of early gunpowder weaponry in England, guns were almost entirely controlled by the king. Even in Henry IV's usurpation of royal power, a takeover significantly different in its manner and make-up from those of the later Wars of the Roses (hence my refusal to look at Henry IV's overthrow of Richard II as the first phase of the Wars of the Roses), gunpowder weapons appear to have been located only among the forces of Richard, who did not use them, and Henry IV. And while it is true that Henry IV's army took some gunpowder weapons against those in the north who rebelled against him, as mentioned above, he seems to have been reluctant to use them against almost all of his English enemies, perhaps because they did not use them against him, although more research on this must be done to justify this conclusion.

Yet, sometime during the half-century following the rise of Henry IV and the attempted rise of Richard, duke of York, the royal control over gunpowder weapons broke down. This probably occurred during the minority of Henry VI, possibly when historians remark that there was a breakdown in administrative centralization.²² Perhaps this came about because of the loss of English guns on the continent. For example, after losing their gunpowder artillery train during the siege of Compiègne, while in the employment of the English, an artillery train said to have existed of at least five large bombards, two veuglaires, one large and one small, innumerable culverins, and two "engins", as well as at least 17,000 lbs. of gunpowder,²³ the Burgundians sued the English for replacements; and while it is unlikely that all of the Burgundian weapons were replaced, it seems as if at least some of the lost Burgundian guns were replaced by English

²² See, for example, Ralph A. Griffiths, *The Reign of King Henry VI* (Berkeley, 1981).

²³ See Jehan de Waurin, *Récueil des croniques et anciennes istories de la Grant Bretagne*, 5 vols., ed. W. and E.L.C.P. Hardy (London, 1864-91), III: 362; Enguerran de Monstrelet, *Chronique*, 6 vols., ed. L. Douet-d'Arcq (Paris, 1857-62), IV: 418-19; Georges Chastellain, *Oeuvres*, 8 vols., ed. Kervyn de Lettenhove (Brussels, 1863-66), II: 53; Antonio Morosini, *Chronique: extraits relatifs à l'histoire de France*, 4 vols., ed. G. Lefevre-Pontalis and L. Dorez (Paris, 1898-99), III: 319-23; and Philippe Contamine, "La guerre de siège au temps de Jeanne d'Arc", *Dossiers de archéologie* 34 (May 1979), p. 16. Extant Burgundian artillery comptes indicate that these figure might actually be too low. See Pierre Champion, *Guillaume de Flavy, capitaine de Compiègne* (Paris, 1906), pp. 174-83 and Alain Salamagne, "L'attaque des places-fortes au XV^e siècle à travers l'exemple des guerres anglo et franco-bourguignonnes", *Revue Historique* 289 (1993), pp. 78-79.

ones.²⁴ Other gunpowder weapons were also left behind in the retreat from Normandy and Aquitaine, for example, the two bombards, known as the Michelettes, left by the English and still found today at Mont-Saint-Michel.²⁵

At the same time, and generally unrecorded in contemporary sources, there seems to have been a concerted and successful effort to acquire guns by various local entities in England. Why this occurred and whether such actions were purposely hidden from royal notice cannot be known. What can be known is that from the very outset of the Wars of the Roses every local entity which could afford gunpowder weapons, greater nobles, lesser nobles, and towns, had them, and when necessary used them.

This included, of course, the major sides during the Wars of the Roses, Lancastrian, Yorkist, and Tudor, all of which possessed gunpowder weapons. In fact, these warring entities, whether in control of the throne, or attempting to acquire it, tried diligently to strengthen their gunpowder weaponry stores and administration. That they succeeded, although perhaps not on the scale of their English predecessors or continental counterparts, should at least put to rest Gillingham's and Goodman's complaints. Let me establish this before moving on to the possession of gunpowder weapons by the even smaller local entities.

From the outset of the conflict in 1450, following the return of Edmund Beaufort, Duke of Somerset, from France and Richard Plantagenet, duke of York, from Ireland, both the Lancastrians and the Yorkists quickly began to acquire, and just as quickly to use, gunpowder artillery. Henry VI, while perhaps not having at his disposal the number of gunpowder weapons that he had had earlier in his reign, still had at least a few of these weapons; two serpentines, one culverin (with nine chambers), five small ribaudequins (with ten chambers) and four larger ribaudequins (with four chambers) are named in an act of the king's council dated June 23, 1450.²⁶ And while this amount might pale in comparison to the numbers of sim-

²⁴ Richard Vaughan, *Philip the Good: The Apogee of Burgundy* (London, 1970), pp. 24-25; Louis Carolus-Barre, "Compiègne et la guerre, 1414-1430", in *IIIe Congrès national des Sociétés savantes, Poitiers, 1986, Histoire médiévale, T. I: "La France Anglaise"*, pp. 386-87.

²⁵ See Robert D. Smith and Ruth Rhynas Brown, *Bombards: Mons Meg and Her Sisters* (London, 1989), pp. 68-78.

²⁶ *POPC*, VI: 94.

ilar weapons a continental leader had at his command, these guns seemed to have been sufficient to put down Jack Cade's rebellion in Kent that same year.²⁷ Henry also continued the royal ordnance department and regularly named individuals to the office of chief cannoneer.²⁸ There is no similar tally of Richard of York's guns, although by 1452, John Benet remarks that the duke had "marvelously fortified his ground [near Dartford] with pits, pavais, and guns" in anticipation of Henry VI's approaching forces.²⁹

There was no conflict between Richard and Henry at Dartford, however, and it would not be until three years later that gunpowder weapons would be first used in battle, at St. Albans, and then their appearance is noted without much comment among contemporary sources other than that the Yorkists certainly had guns on the battlefield. It is not known whether Henry had gunpowder weapons at St. Albans.³⁰

With the beginning of York's second protectorate, following the first battle of St. Albans, a tenuous peace settled over the kingdom. Of course, everyone recognized that peace would not last long, and all seemed to prepare for the next outbreak of war. This preparation included the making and stockpiling of new gunpowder weapons, especially among the Lancastrians who had seemed noticeably outgunned by their Yorkist opponents before then. Margaret of Anjou, for one, ordered all of the guns in London to be taken to her castle at Kenilworth before the duke of York could capture them.³¹ Henry VI appointed John Judde, a London merchant, also called the king's "serjeant" in the patent rolls, to the office of master of king's ordnance, "he having caused to be made at his own expense sixty guns, called 'serpentes' and stuff of 'gonne powdre, salt petre' and sulphur to the weight of twenty tons or beyond".³² This was to

²⁷ I.M.W. Harvey, *Jack Cade's Rebellion of 1450* (Oxford, 1991), p. 84.

²⁸ On Henry VI's domestic use of gunpowder weapons, see Goodman, pp. 160–61; R.L. Storey, *The End of the House of Lancaster* (London, 1966), p. 181; *CPR, 1452–61*, pp. 342, 603, 659.

²⁹ John Benet, *Chronicle for the Years 1460 to 1462*, ed. G.L. Harriss, in *Camden Miscellany*, 24 (London, 1972), p. 206. See also John Whethamstede, *Register in Registra quorundam Abbatum Monasterii S. Albani*, ed. H.C. Riley (London, 1872), I: 161. Goodman (p. 170) regards this as a "characteristic Continental field fortification", obviously learned by Richard while in military service in France.

³⁰ *RP*, V: 347; Goodman, p. 170.

³¹ Andrew W. Boardman, *The Battle of Tewkesbury* (Stroud, 1994), p. 15.

³² *CPR, 1452–61*, p. 342.

be a most felicitous appointment of the king, for it appears from the meager records which remain that Judde alone may be responsible for the rebuilding of the Lancastrian artillery train, adding many "bombards, cannons, culverins, serpentines, saltpeter, and powder", and at least putting it on a competitive par with that of the Yorkists.³³ About the only thing that this master of ordnance failed to do when asked by the king was to confiscate "all the ordnance and habiliments of war" owned by Richard of York, Richard of Warwick, and Richard of Salisbury in 1459, an obviously impossible task.³⁴ Still, by the time that he was killed the following year, Judde had accomplished so much for the Lancastrian cause that he earned this epitaph from the avowedly Yorkist Robert Bale:

Item, the 22nd of June, Sunday . . . one Judde, a merchant of London, a Breton born, who had maliciously imagined and labored to ordain and make all things for war to the destruction of the said duke of York and all other lords ... in great violence was slain after this demerit beyond St. Albans and so wretchedly as a caitiff ended his life.³⁵

While no similar figure appears among the Yorkist forces, it can be certain that between 1455 and 1459, Richard was also increasing his gunpowder artillery numbers and improving their quality.

When warfare broke out again, first at Blore Heath and then at Ludford Bridge in 1459, at Northampton and Wakefield in 1460, and at Mortimer's Cross, St. Albans, and Towton in 1461, only at the battle of Mortimer's Cross is it possible that gunpowder weapons were not present (and that may be only because of the scanty evidence recording the events and participants of that battle). Yet, in none of these engagements can guns be seen as a particularly influential part of the conflict. At Wakefield and Towton, because of surprise on the one hand and weather on the other, the gunpowder weapons present may not even have been fired; while in the other three engagements, a more comically inept display of gunpowder' weaponry use followed. At Ludford Bridge, although the Yorkists fortified their

³³ The quote is from *CPR, 1452-61*, p. 605, but see also Goodman, p. 160; Gillingham, p. 26; and Cora L. Scofield, *The Life and Reign of Edward IV*, 2 vols. (London, 1923), I: 50.

³⁴ *CPR, 1452-61*, p. 527.

³⁵ Robert Bale, *Chronicle*, in *Six Town Chronicles of England*, ed. R. Flenley (Oxford, 1911), p. 149. See also *A Short English Chronicle*, in *Three Fifteenth-Century English Chronicles*, ed. J. Gairdner (London, 1858), p. 73; Gillingham, p. 26.

position with guns and fired them off into Henry VI's lines before the battle, this did not keep Andrew Trollope and much of the earl of Warwick's Calais army from switching sides to the Lancastrians, thereby provoking Richard of York, two of his sons, and the earls of Salisbury and Warwick into their ignoble flight.³⁶

This folly was matched a year later, at the battle of Northampton, when, according to John Whethamstede, Henry VI so deeply entrenched his men and guns in "great ditches which they had dug around the field to the river banks, which enclosed the whole army",³⁷ that when a torrential rain fell on the battlefield, as recorded in *An English Chronicle of the Reigns of Richard II, Henry IV, Henry V, and Henry VI*, "the guns lay deep in the water, and so were soaked and could not be fired".³⁸ Both the king and his guns were captured.³⁹ Finally, at the second battle of St. Albans, the Burgundian gunners employed by Warwick were forced to discharge their multi-barrelled ribaudequins so hastily, due to the quick charge of the Lancastrians, that they actually hit more of themselves, 18 wounded and 1 killed, than they did of the enemy, 0 wounded and 0 killed.⁴⁰

Only at the battle of Blore Heath did gunpowder weapons play a more major role in the outcome, and then only in covering the withdrawal of the earl of Salisbury from the battlefield. As William Gregory reports, Salisbury had an Augustinian friar fire off his guns all night after the battle in order to distract any would-be Lancastrian pursuers. When asked later why he had performed such a non-ecclesiastical task, the friar responded that he had done so out of "fear", although what he was fearful of is not explained in the chronicle.⁴¹

³⁶ *RP*, V: 348; Bale, p. 148; Goodman, pp. 30, 121, 171; Boardman, *The Battle of Towton*, p. 18; Brooke, pp. 234-45; Philip A. Haigh, *The Military Campaigns of the Wars of the Roses* (Stroud, 1995), pp. 21-22.

³⁷ John Whethamstede, I: 373-74. See also R.I. Jack, "A Quincentenary: The Battle of Northampton, July 10th, 1460", *Northamptonshire Past and Present* 3 (1960-65), pp. 21-25.

³⁸ *An English Chronicle of the Reigns of Richard II, Henry IV, Henry V, and Henry VI*, ed. J.S. Davies (London, 1856), pp. 96-97; see also Waurin, V: 323.

³⁹ See Goodman, p. 171; Gillingham, pp. 112-13; Haigh, pp. 23-28; Brooke, p. 235; and Boardman, *The Battle of Towton*, p. 23.

⁴⁰ William Gregory, *Gregory's Chronicle, 1189-1469*, in *The Historical Collections of a Citizen of London in the Fifteenth Century*, ed. J. Gairdner (London, 1876), pp. 213-14; Goodman, pp. 171-72; and Andrew W. Boardman, *The Medieval Soldier in the Wars of the Roses* (Stroud, 1998), pp. 151-54.

⁴¹ William Gregory, p. 204. See also Goodman, pp. 28, 174; Haigh, p. 20; and Paddy Griffith, ed., *The Battle of Blore Heath, 1459* (Nuneaton, 1995), p. 34.

Despite the technological ineptitude shown in the use of gunpowder weapons at these engagements, and with Edward IV placed more or less securely on the throne after Towton, the acquisition of gunpowder weapons continued.⁴² Indeed, of all the Wars of the Roses leaders, no one seems more interested in building a strong and numerous gunpowder artillery train than Edward IV. And he would need all of these weapons. For, although John Paston the youngest wrote to his father, John, on December 11, 1462, that the earl of Warwick and the marquis of Montagu had plenty of artillery, "both for siege and for battlefield, in case a field needed to be taken",⁴³ Margaret of Anjou's forces in the north held out tenaciously against the new king. Ultimately, this would require the frequent gunpowder artillery bombardment of Alnwick, Bamburgh, and Dunstanburgh castles from 1461 to 1464, as both sides took, lost, and retook these castles several times.⁴⁴ Many historians have made much about Edward's refusal to use gunpowder weapons initially against the walls of Bamburgh Castle.⁴⁵ As recorded by John Warkworth: "he specially desireth to have it whole, unbroken with ordinance: if ye suffer one great gun laid into the wall and be shot, and prejudice the wall, it shall cost you the chieftain's head; and so proceeding for every gunshot, to the last head of any person within the place".⁴⁶ However, in my view, this is merely an intimidating tactic, and when not successful, it did not keep the king from unleashing his entire firepower on the castle. Perhaps had Bamburgh's chief defender, Sir Ralph Grey, remained alive at the end of the siege, he would have been executed. As he had died in the barrage, such resistance did not cost him his head. Nor, should it be said, is it recorded that any others were executed for their defense of this fortification.

⁴² See Brooke, pp. 236-37, and Boardman, *The Medieval Soldier in the Wars of the Roses*, p. 151.

⁴³ *The Paston Letters*, ed. J. Gardiner (London, 1904), II: 121. Edward IV had sent the duke of Norfolk to deliver his artillery to Warwick. See Goodman, p. 172.

⁴⁴ Goodman, p. 64; Brooke, p. 236; Haigh, pp. 69-77; and *A History of Northumberland* (London, 1893), pp. 47-48.

⁴⁵ All of the authors in note 44 mention Edward's initial refusal to use gunpowder weapons against Bamburgh Castle.

⁴⁶ John Warkworth, *A Chronicle of the First Thirteen Years of the Reign of King Edward the Fourth*, ed. J.O. Halliwell (London, 1839), pp. 36-37. See also Goodman, p. 64; *A History of Northumberland*, p. 48; and A.J. Pollard, *North-eastern England during the Wars of the Roses: Lay Society, War, and Politics, 1450-1500* (Oxford, 1990), p. 229.

Edward also put faith in the new weapons when he returned to England and his throne in 1471. John Warkworth reports that when Edward landed at Holderness, he was accompanied by "300 Flemings with handguns", a quarter of his total force.⁴⁷ He then proceeded with this army to Barnet, where he faced the now Lancastrian earl of Warwick and marquis of Montagu. Warwick, it is known, had been collecting gunpowder artillery since Edward's exile in 1470,⁴⁸ and, according to the author of the *Historic of the Arrivall of Edward IV in England*, greatly outgunned the former and future king. But Warwick's advantage came to naught when, first, his night bombardment of Edward's camp missed its mark, there is disagreement among the sources as to whether Edward returned fire, with John Warkworth and Jehan de Waurin claiming that he did and the *Arrivall* claiming that he did not, desiring not to give his position and thereby allow Warwick's guns to correct their range,⁴⁹ and then on the morning of the battle a heavy mist and perhaps a low ammunition supply forced the earl to cease his gunpowder artillery attack on Edward. Edward IV would win the battle; it would also cost the Neville brothers their lives.⁵⁰

Following the battle of Barnet, at Tewkesbury, Margaret of Anjou also had a large number of gunpowder weapons, but not nearly as many as did Edward, now reinforced by those weapons which he had captured at Barnet.⁵¹ But this was not the reason for Edward's victory, the contemporary sources report.⁵²

From 1471 to 1485, Edward IV and Richard III, his brother who followed him to the throne, had few opportunities to use their gunpowder weapons in England. Still, they cared much about the continued acquisition of such weapons, especially Edward, and the quantity

⁴⁷ John Warkworth, p. 13. See also Goodman, p. 172 and Brooke, p. 238.

⁴⁸ *Historic of the Arrivall of Edward IV in England and the Finall Recouerye of his Kingdomes from Henry VI. AD M.CCCC.LXXI*, ed. J. Bruce (London, 1838), p. 18; Goodman, p. 172; and Brooke, p. 237.

⁴⁹ John Warkworth, p. 16; Waurin, V: 66; *Arrivall*, pp. 18-19. Goodman (p. 172) chooses to believe the *Arrivall*.

⁵⁰ John Warkworth, p. 16; Waurin, V: 66; *Arrivall*, pp. 18-19; Goodman, p. 172; Gillingham, pp. 19, 197; Brooke, p. 239; Ross, p. 123; Boardman, *The Medieval Soldier in the Wars of the Roses*, pp. 152-53; and P.W. Hammond, *The Battles of Barnet and Tewkesbury* (New York), 1990, pp. 72-78.

⁵¹ *Arrivall*, pp. 24, 29.

⁵² See Hammond.

and quality of guns increased.⁵³ Indeed, so impressed was the first Yorkist king with his gunpowder artillery train that the Milanese Battista Oldovini de Brugnato wrote to Antonio de Bracellis on 17 March 1435: "Every day he inspects all his artillery. . . . Notwithstanding that he has a very large number of bombards, he has fresh ones made every day ..." ⁵⁴ Edward took this train with him to France, which, Goodman remarks, "clearly [was] intended to provide for field actions as well as sieges".⁵⁵ A similarly impressive artillery train was outfitted by Edward for Richard? of Gloucester's planned expedition into Scotland in 1480-82.⁵⁶

There is no need to repeat here about the road to Bosworth taken by Richard III and Henry Tudor after the former's accession to the throne in 1483. Suffice it to say, gunpowder weapons were there too, both those inherited by Richard and those gathered by Henry Tudor in his march through Wales and England, as well as a few French weapons, which he had brought with him from his exile.⁵⁷ One might argue that Richard's guns adequately protected his left flank at Bosworth, as evidenced by the archaeological findings of cannon balls in the valley below that side of the Bosworth ridge, but without more substantial evidence, I must reluctantly agree with Michael Bennett that these and those of Henry were inconsequential in determining the outcome of the battle. Two years after Bosworth, at the battle of Stoke, the new king, Henry VII, defeated a final Yorkist uprising, thus effectively ending the Wars of the Roses. Again, both sides used gunpowder weapons.⁵⁸

Despite such a lengthy discourse on the history of gunpowder weapon use among the major factions in the Wars of the Roses, the main thesis of this article was not to show that guns were used by the major factions during these wars, but that in fact this was a period when gunpowder weapon use was different from that either

⁵³ See, for example, *CPR*, 1467-77, pp. 259, 412, 463, 474; Brooke, p. 240.

⁵⁴ *Calendar of State Papers*, I: 194; Gillingham, p. 27.

⁵⁵ Goodman, p. 173; Brooke, pp. 240-41.

⁵⁶ Brooke, p. 241.

⁵⁷ Jean Molinet, *Chroniques*, ed. G. Doutrepont and O. Jodogne, 3 vols. (Brussels, 1935), I: 434; Goodman, p. 93; Brooke, p. 242; and Ross, pp. 131, 135. See also Boardman, *The Medieval Soldier in the Wars of the Roses*, p. 152 and D.T. Williams, *The Battle of Bosworth* (Leicester, 1973), p. 10.

⁵⁸ Boardman, *The Medieval Soldier in the Wars of the Roses*, p. 152; Michael Bennett, *Lambert Simnel and the Battle of Stoke* (New York, 1987), pp. 91-92.

earlier in English history or in comparison with those political entities on the European continent at the same time. Indeed, as I have expressed elsewhere,⁵⁹ in comparison with almost all of the realms of the continent during the same 1452-87 period, English gunpowder weaponry use was much more primitive, much less numerous and far less competent. What is different in England, is that, unlike continental counterparts, local ownership of gunpowder weapons almost always equalled if not surpassed that of the central, royal government. So pervasive was this local control that there were even occasions when these smaller owners of gunpowder weapons used their guns against each other without ever involving the king or one of his more major opponents. Although it may never be known exactly how often and to what extent these local gunpowder weapons were used, simply because of the nature of medieval record keeping, a list of examples should suffice to exemplify what I mean.

In 1443, the citizens of Norwich attempted to use a cannon against a priory which had offended their sovereignty; eventually, by their inability to fire the weapon, they were forced to "kidnap" Walter Aslak, an ex-soldier, and threaten him with defenestration unless he would discharge the gunpowder weapon.⁶⁰ In 1448, Sir Robert Wingfield's house at Letheringham was assaulted by gunpowder weapons used by John Mowbray, duke of Norfolk, in an attempt by the latter to regain the manor at Hoo which he claimed that Wingfield had taken from him.⁶¹ In 1449, Margaret Paston in a letter to her husband, John, makes reference to the defences which had been made to their home during his wartime absence. These included "hand gunnys", as well as "the holys that ben made forr hand gunnys".⁶² In 1450, the Parliament Rolls carry a reference to the poor state of the defence of the Isle of Wight, the castle of which had not been provided "with guns, gunpowder, crossbows, quarrels, longbows, arrows, long spears, axes or glaives".⁶³ This need was partially filled later that year when in the same source it is recorded that

⁵⁹ Kelly DeVries, "Gunpowder Weaponry and the Rise of the Early Modern State", *War in History* 5 (1998), 127-45.

⁶⁰ Storey, p. 223; Philippa C. Maddern, *Violence and Social Order: East Anglia, 1422-1442* (Oxford, 1992), p. 198.

⁶¹ CPR, 1446-52, p. 236; Storey, p. 227.

⁶² *The Paston Letters*, I: 82-83.

⁶³ RP, V: 204. Although not named in the patent, this is undoubtedly Carisbrooke Castle.

Harry Bruyn, esquire, who had been appointed lieutenant of the Isle of Wight, had given "a gret good of his own, bothe in gonnys and in arcerie" for the protection of the island.⁶⁴ In 1450 as well, Edmund Fitzwilliam, unbeknown to Henry VI, seized the earl of Shrewsbury, John Talbot's, artillery to install it in the unarmed royal castle of Conisborough.⁶⁵ In 1455, at the siege of Powderhorn, the guns of Thomas Courtenay, Earl of Devon, were used to conquer the castle of William, Lord Bonville.⁶⁶ In 1460, with Edward, Earl of March, at the battle of Northampton, the Lancastrians under Lord Scales in the Tower of London, according to *An English Chronicle of the Reigns of Richard II, Henry IV, Henry V, and Henry VI*, "cast wild fire into the city, and shot with small guns, and burned and hurt men and women and children in the streets". To this the Londoners responded by placing a "great bombard on the further side of the Thames against the Tower and broke the walls thereof in many places". Once the Tower had fallen, Scales was executed for discharging his guns against the citizens of London.⁶⁷ In 1469, the feud between the Talbot and Berkeley families ended with gunpowder weapon bombardments from both sides at the battle of Nibley Green.⁶⁸ Also in 1469, John Mowbray would use his guns against Sir John Paston's castle at Caister; Caister would fall and Paston would have to surrender his guns despite having his own "proved" men who could "well shoot both guns and crossbows", as he had remarked to his brother, John, a few months previously.⁶⁹ In 1471, the citizens of London declared themselves for Edward IV and were thus forced to fend off an artillery barrage from the Lancastrian William Neville, Lord Fauconberg and earl of Kent. The Londoners responded as they had done in 1460, using their own gunpowder weapons. Eventually, they forced Fauconberg

⁶⁴ *RP*, V: 205.

⁶⁵ *RP*, V: 198; Brooke, p. 233.

⁶⁶ Storey, p. 171.

⁶⁷ *An English Chronicle of the Reigns of Richard II, Henry IV, Henry V, and Henry VI*, p. 96. See also Brooke, p. 235; Scofield, I: 89–92; Reginald R. Sharpe, *London and the Kingdom*, 3 vols. (London, 1895), III: 384.

⁶⁸ See the document, "The Battle of Nibley Green, 1469", in *English Historical Documents, IV: 1327–1485*, ed. A.R. Myers (London, 1969), pp. 1127–30; Goodman, p. 173; Boardman, *The Medieval Soldiers in the Wars of the Roses*, p. 132; *The Berkeley Manuscripts: The Lives of the Berkeleys*, ed. J. Smyth (Gloucester, 1883), II: 109.

⁶⁹ *The Paston Letters*, II: 397–99, V: 55; William Worcestre, *Annales rerum Anglicorum*, in *Letters and Papers Illustrative of the Wars of the English in France*, 2 pt. 2, ed. J. Stevenson (London, 1864), pp. 186–87, 191.

to abandon his artillery positions and attempt to take the city using a different tactic.⁷⁰ Also in 1471, the feud between the Stanleys and the Harringtons ended with the siege of Hornby Castle, taken by Sir Thomas Stanley using, among other artillery pieces, the cannon named *Mile End*.⁷¹ And in 1483 Londoners once again used their local guns, this time against Kentish rebels.⁷² Finally, perhaps the most telling sign of local gunpowder weapon control still active as late as Richard III's reign is not found in any written document, but in the archaeological remains of Kirby Muxloe Castle; left unfinished at the execution of its owner, William, Lord Hastings, the tower and gatehouse of Kirby Muxloe Castle are surrounded on all sides by gunports, six ports on the gatehouse and seven on the tower, and it is made in brick. Obviously, Hastings was experimenting with anti-gunpowder weaponry fortification defence devices. What is significant though, is that this is not a royal castle! While Edward III experimented with anti-gunpowder weaponry devices on his royal castle at Queenborough, more than 125 years later similar experimentation was being done by an albeit powerful individual, and one who was doing so for his own private, local protection.⁷³

It would be a gross understatement to say that Henry VII was not the same king that his predecessors had been. His programme of gunpowder weapon acquisition was in fact quite remarkable and, if nothing else, shows a king willing to expend large amounts of the treasury on a build-up of guns unprecedented in English history, even when not really planning to use it against an opponent, his rhetorical call to arms against Scotland and France notwithstanding.⁷⁴ While still unable to compete on land with the artillery trains

⁷⁰ Waurin, V: 674; Gillingham, pp. 210–11; Brooke, pp. 238–40.

⁷¹ Brooke, p. 238; Michael K. Jones, "Richard III and the Stanleys", in *Richard III and the North*, ed. R.E. Horrox (Hull, 1986), pp. 36–38.

⁷² DeLloyd J. Guth, "Richard III, Henry VII and the City: London Politics and the Dun Cowe", in *Kings and Nobles in the Late Middle Ages: A Tribute to Charles Ross*, ed. R.A. Griffiths and J. Sherbourne (Gloucester, 1986), p. 190.

⁷³ Sir Charles Peers, *Kirby Muxloe Castle* (London, 1957) and Anthony Emery, "Kirby Muxloe Castle", *Nottingham Area Proceedings* (1989), pp. 72–77. See also De Vries, "The Impact of Gunpowder Weaponry on Siege Warfare in the Hundred Years War", pp. 233–37.

⁷⁴ See, for example, James R. Hooker, "Notes on the Organization and Supply of the Tudor Military under Henry VII", *Huntingdon Library Quarterly* 23 (1959–60), pp. 19–31 and Ian Arthurson, "The King's Voyage into Scotland: The War that Never Was", in *England in the Fifteenth Century: Proceedings from the 1986 Harlaxton Symposium*, ed. D. Williams (Woodbridge, 1987), pp. 1–22.

of France, the Holy Roman Empire, or Spain, it could be argued that by 1497 he had the best outfitted fleet of all of Europe: two of his ships, the *Sovereign* and the *Regent*, had 141 guns/419 chambers and 181 guns/453 chambers respectively.⁷⁶ But, it is perhaps the centralizing of gunpowder weapons control in England which might prove the most important gunpowder weapon policy of Henry's reign. By the end of the fifteenth century, local gunpowder weaponry ownership had been virtually abolished. It would stay so at least until the reign of Henry VIII.

⁷⁶ See Ian Friel, *The Good Ship: Ships, Shipbuilding and Technology in England, 1200-1520* (Baltimore, 1995), pp. 153, 204; Gillian Hutchinson, *Medieval Ships and Shipping* (London, 1994), p. 160; Kelly DeVries, *The Effectiveness of Fifteenth-Century Shipboard Artillery* (forthcoming).