The Barnet battlefield project 2015-2018

Glenn Foard, Tracey Partida and Sam Wilson

The battle of Barnet as depicted in the short version of The Arrival, showing events in a landscape which lacks any significant relation to the landscape around Barnet.
File:MS Ghent - Battle of Barnet.jpg.

Acknowledgements

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The project and preceding pilot work benefited greatly from the assistance over more than a decade of a wide range of volunteers too numerous to all mention individually. They were in part organized through the Barnet Museum, thanks to the work of Mike Noronha and his colleagues, the Hendon and District Archaeological Society (HADAS), and the Battlefields Trust. We are also grateful to the latter two organisations for providing a data set on previous archaeological/antiquarian finds relevant to the battle, which we digitally mapped and enhanced in the project. The small scale test pitting on the putative battle chapel site was undertaken by Sam Wilson for Cotswold Archaeology as part of the Battlefield Trust's own community based HLF funded Barnet project, developed and implemented in collaboration with the Museum. Thanks also to Dave Adkin for providing information about his detecting within the Wrotham Park estate and access to the finds he recovered there. A key role has been played by the volunteers in the detecting team, supported by highly experienced battlefield detectorists who worked on either the Bosworth or the Edgehill surveys. We are also grateful for the advice and information provided over a number of years by Brian Warren. Geophysical survey has been undertaken for us by the University of Southampton; the majority of the primary battle accounts were collected together and related advice provided by Professor Anne Curry; Professor Richard Morris has advised on issues related to the battle chapel; finds identification was by Katie Marsden, finds specialist at Cotswold Archaeology, with additional advice from Peter Reavil. We are also grateful to the various landowners and tenants who have allowed access to their land, especially Mr Byng of Wrotham Estate where the majority of the fieldwork took place, with access facilitated by Kevin Patrick and Charles Dace.

The present report is based on research by the three authors with further detail from the work incorporated in separate landscape and archaeology survey reports, by Partida and Wilson respectively, which are deposited as part of the digital archive at the Archaeology Data Service. Where not referenced in the present report then relevant sources will be detailed in those two reports and/or in the GIS data sets in the digital archive.

Introduction

In March 1471 the Yorkist king Edward IV, having been in exile on the continent, landed in Yorkshire with a small army. In response the Earl of Warwick marched from London into the Midlands to marshal Lancastrian forces. Edward attempted to draw the Lancastrians to battle outside Coventry but the Earl was not yet ready to fight, so the Yorkists marched to London where they brought together more troops. Once Warwick had assembled his army he marched south and on 13 April 1471, with Lancastrian forces perhaps numbering 15,000, he deployed to the north of High Barnet. Edward IV arrived at Barnet from the City that evening with a force of perhaps 12,000 troops and, in the dark, deployed opposite the Lancastrians. Following an ineffective overnight artillery exchange, the following morning the Yorkists attacked and after a hard fought battle the Lancastrians were defeated. The Yorkist victory not only saw the return of Edward IV to the throne but resulted in the death of the Lancastrian commander, the Earl of Warwick. This was arguably the most influential individual in this whole period of warfare and a death arguably second only in importance during the Wars of the Roses to that of Richard III on the battlefield at Bosworth. Interestingly Richard, then Duke of Gloucester, gained important military experience at Barnet as commander of the Yorkist vanguard. The failure of the Lancastrian artillery in the battle, because it overshot the Yorkists, may even have influenced Richard's thoughts on how an army could more effectively employ artillery in a defensive deployment, perhaps contributing to his choice of very different ground at Bosworth in 1485.

Our decision to prioritise the investigation of Barnet, despite the failure of an initial bid in collaboration with the Battlefields Trust for HLF funding, followed scoping we undertook in our Wars of the Roses project funded by the British Academy. This compared all the battlefields of the period and showed Barnet had one of the highest potentials for investigation, along with Mortimer's Cross which is currently subject to an HLF funded project in collaboration between the University of Huddersfield and the Battlefields Trust. These two battles will thus take their place alongside Bosworth and Towton as the most intensively investigated battlefields of the Wars of the Roses.

Like most other battles of the Wars of the Roses, the site of the action at Barnet is not securely located. So the project's primary objective was to resolve that uncertainty, by applying the techniques which had proved so successful in locating the battlefield at Bosworth. The second objective was to map as accurately as possible the character of the historic landscape within which the action took place, and then to assess how the commanders may have exploited this terrain tactically. Another was to determine the character of the battle archaeology, to provide comparative evidence for the two very different assemblages so far known from battlefields of the Wars of the Roses, at Bosworth and Towton. As the primary sources suggest a large number of artillery pieces were used at Barnet so the scatter of round shot there could provide the first comparative data set to that.

t seen at Bosworth. It would also be important to see if the distribution of other battle-related finds was dense, as at Towton, or as seems more likely, sparse and difficult to locate as at Bosworth. Barnet is also the only surviving battlefield of the period in England where an army is known to have included a substantial number of handgunners – the other, St Albans II, having been largely destroyed by quarrying and urban development. Thus Barnet might be our only opportunity in England to reveal the archaeological signature of late 15th century handguns when used in battle. Because 1471 is close in time to a key transition in handguns, from the inefficient weapons documented by Gregory at St Albans II (1461) to an effective presence of shoulder firing arquebus seen on continental battlefields such as Murten and Grandson by 1476, we cannot be sure which type of handgun was used by the Flemish mercenaries at Barnet. The calibre of the bullets would resolve this question and might unlock such evidence on other battlefields of the Wars, or confirm that handguns were not present in

significant number on any other battlefield of the Wars, apart from St Albans II, as the documentary evidence generally and the archaeology from Bosworth both suggest.

Knowing that artillery were used in large number at Barnet we confidently applied the Bosworth metal detecting survey methodology, as there the lead and lead-composite round shot enabled the site to be securely located. However at Barnet we attempted to achieve this over a much shorter timescale and with a far smaller budget. This was in itself was an experiment, to establish whether the Bosworth approach could be simplified, thus enabling many more sites to be investigated with less resources in the future.

1. Losing Barnet battlefield

Before we review the work in 2015-18 it is helpful to understand how the battlefield came to be lost. Not long after the battle was fought a chapel was established, supposedly on the battlefield, in memory of those who died there on the 14 April 1471. A location for the action has also been depicted on maps ever since the late 16th century. It may therefore seem surprising that in the 21st century, and despite a firm line having been drawn for the Registered Historic Battlefield by English Heritage in 1995, we cannot accurately identify the battlefield. In fact it is not unusual for the site of a major medieval battle to have been lost.[1] It is a process of loss that has been demonstrated at Bosworth, and similar clues exist to suggest how Barnet battlefield probably also came to be misplaced.[2]

[1] Foard & Morris 2012, 52.
[2] Foard & Curry 2013, 1-18.

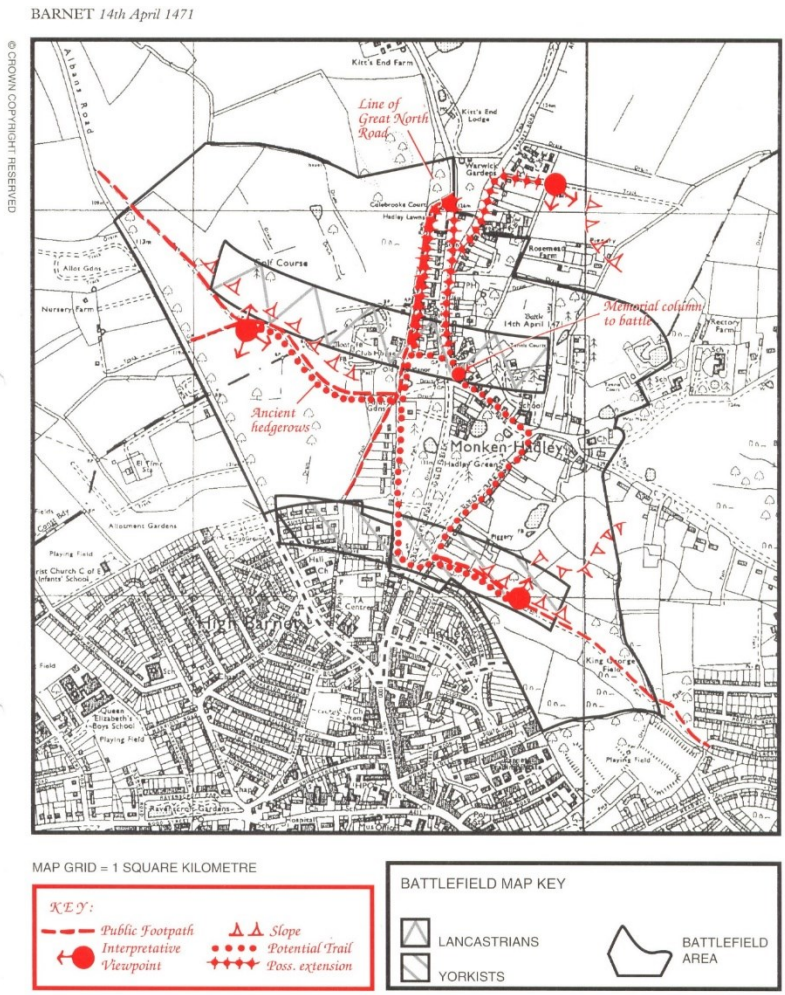

Figure 1: The Registered Battlefield at Barnet from the report prepared by the National Army Museum that underpinned its registration by English Heritage in 1995.

The battle chapel is our strongest link to the site, because in c.1512 the Great Chronicle of London recorded that 'at this ffeyld was slayn of the Comons upon both partyes iii M (3000) men or therabowth which were buried In the said playn well upon half a myle from the Town (Barnet) where afftyr was byldyd a lytyll Chapell to remember the sawlys of theym that wer slayn at that ffyeld…'.[3] The chapel apparently continued in use in 1519-20 as there is a will which seems to refer to it which made a bequest to 'the brotherhell off the Resurrecion and St Blasé at the chappell apan the hethe yn Southmyms'.[4] However it seems to have fallen out of use by 1539, soon after the dissolution of the monasteries but well before the dissolution of the chantries in 1548, for the South Mimms court roll discusses the granting of the hermitage on the heath to a tenant. That is of course if Baker and Warren are correct in arguing that this hermitage was the battle chapel.[5]

The association of a chapel with the battle is repeated by Stow in 1580, who makes extensive use of the Great Chronicle of London. Then in 1589 or 1605 (Baker and Warren disagree on the date of the document) a manorial survey for South Mimms refers to a hermitage lying in the heath which 'was

[3] *The Great Chronicle of London,* eds. A H Thomas and I D Thornley, London 1938, 21.
[4] Warren 2002, The Chapel for the Dead of the Battle of Barnet', J of Potters Bar and District Historical Society, 11; quoting Guildhall Library MS9171/9f.149.
[5] Baker 1970, 'Wrotham Park and Kitts End' Barnet and District Local History Society Bulletin, No. 16. and Warren 2002, quoting Hatfield CFEP Gen.105/1 f.41v.

(as I am informed) a chapel wherein the dead bodies were buried in Barnet field'.[6] The 1615 edition of Stow's Chronicle explains that the site was known because remains of the converted chapel were still visible in the upper parts of a dwelling: 'and on both partes to the number of foure thousand, which were buried on the same plaine, halfe a mile from Barnet, where after a Chappell was builded in memory of them, but it is now a dwelling house the top quarters reamine yet.'[7]

Plans to rebuild the dwelling are recorded in 1651 and, if they were implemented and swept away the upstanding remains of the chapel, this may explain why this building's origin as the battle chapel was forgotten in later centuries. The process was completed when the building standing within the moat on the Inclosure map of the common 1781 was subsequently demolished.[8] Thus, like most of the chantries on other battlefields, the site of the Barnet chapel was forgotten and so it ceased to have a direct influence on the placing of the battle.[9] As a result in 1789 Gough was able to suggest that the battle chapel might have been the parish church of Monken Hadley, while in 1844 Kempe specifically states that the location of the chapel was not known.[10] This loss may have been a key factor enabling the site of the battle to drift southward during the 19th century, something probably assisted by the construction in 1740 of the obelisk monument discussed below.

The probable site of the battle chapel was first recognised in 1970 by Helen Baker and subsequently discussed by the Victoria County History, who identified it with the hermitage in the moated site at Kicks End, which lay on the former Kicks End Common in South Mimms parish, where a single arm of the moat still survives.[11] Subsequently Brian Warren undertook further documentary research to demonstrate more securely, though still not beyond reasonable doubt, the association with the moated enclosure.[12] Unfortunately the fieldwalking survey he encouraged on the site, while it recovered tiles and other building materials indicating a building had stood within the moat, failed to provide physical proof that this was the site of the battle chapel.[13]

The site of a chantry to those who died can provide important evidence as to exactly where the action took place in a medieval battle. This is probably true in the case of Battlefield church, built in memory of those killed at Shrewsbury in 1403, and of the monastery at Battle constructed by William I for the souls of those killed in the battle of Hastings in 1066. In near contemporary sources Battlefield church is said to have been constructed where a mass grave was dug, while Battle Abbey was reported in the medieval Cartulary of Battle Abbey to have been built on the battlefield where Harold fell. However the latter association has recently been questioned, and there are several examples of other battle chantries which lie well beyond their battlefield. At Towton the chapel is more than a mile from the heart of the action, lying within the village though possibly on the line of the Lancastrian rout. It may have been chosen as the site because a chapel of ease probably already existed there, where bodies from the battle had already been interred immediately after the battle, some in a mass grave and others in single graves, the latter perhaps having died of their wounds in subsequent days while being cared for in the village. At Bosworth the battle chantry was established in the pre-existing chapel in

[6] Hatfield CFEP(gen)66/7, quoted by Baker 1970 and Warren 2002.
[7] Stow, 1615, 423.
[8] Warren 2002; Hatfield CPM Supp 47.
[9] Foard & Morris 2012, 14-15.
[10] Gough Camden v.1, 350; Kempe, 1844.
[11] VCH, 1976, Middlesex, v.5, introduction n.110 &112, quoting Hatfield CFEP(gen)66/7; Baker H.M. 1970 'Wrotham Park and Kitts End' Barnet and District Local History Society Bulletin, No. 16.; H.M. Baker, 1973 'Dancers Hill and the Manor of Mandeville'. Barnet and District Local History Society No.17.
[12] Warren 2002.
[13] Warren, pers.com. including notes and sketches in Barnet Museum with copies in the digital archive for the current project.

Dadlington village, several miles from the battlefield and away from the apparent line of Yorkist rout.[14]

However, at Barnet it may be reasonable to accept the Great Chronicle, even though written about forty years after the battle, when it states the chapel lay on the plain where the battle was fought, but it is not clear from that source where exactly the chapel lay in relation to the mass graves. Thus archaeological evidence is still needed to confirm, beyond doubt, that the surviving moated site is indeed where the chapel lay. Proving that it was placed at the centre of the action, rather than perhaps re-using a pre-existing building nearby, and determining whether this is exactly where the mass graves lay, will be more complex questions to answer.

The evidence provided by early maps is equally problematic. Unlike Bosworth, Barnet battlefield is not depicted on the county maps in Saxton's national Atlas of 1579. It is first shown on the two county maps in Norden's *Speculum Britanniae, Description of Middlesex and Hertfordshire* of 1598, which overlap in the area of Barnet where the two counties are closely intertwined. These maps are exceptional for the period in depicting major roads in addition to settlements. Norden's Middlesex shows the location of the battle with a cross, specificed in the key as the site of the battle rather than of a chapel. It is placed on the east side of the St Albans road and apparently positioned in relation to the settlements of Dancers Hill, Monken Hadley, Kicks End and Old Fold, which are all shown. However, whether such spatial accuracy was Norden's intention is far from certain, as we can see from his map of Hertfordshire. Here Norden provides more detail, depicting two bodies of armed men fighting across the road from London to Hatfield, just north of where it separates from the road to St Albans. Above this depiction is written 'Gladmore heathfeyld', meaning the battle of Gladmore heath – of which more later. Taking into account the inconsistencies of scale across both maps, they appear to show roughly the same location, but with the Hertfordshire map apparently providing a specific relationship to the road network. He then specifies very clearly in the text that 'neere Barnet in Enfielde Chace, was a battle fought between Edward the fourth, and the favourites of Henrie the sixt.' At first sight it thus seems that Norden had a clear idea exactly where the battle had been fought 127 years before he was writing and, judging from his textual comments about his knowledge of the second battle of St Albans, it seems likely that this information on Barnet may also have been locally derived.[15]

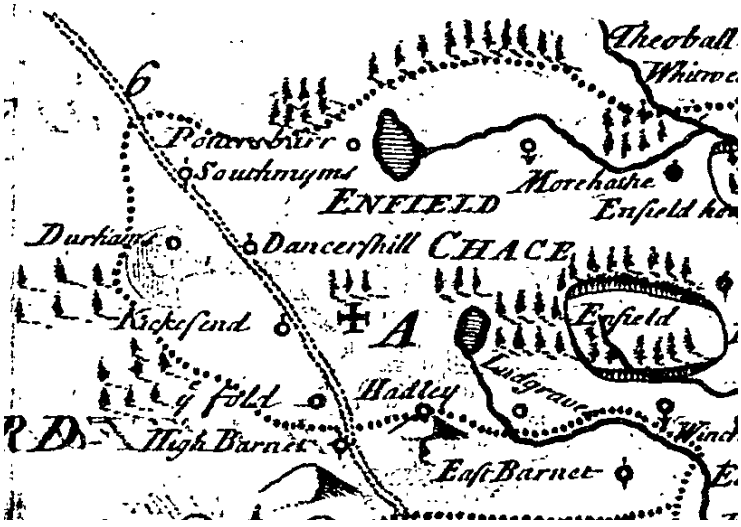

Figure 2: Extract of Norden's map of Middlesex, showing the battle of Barnet as a cross immediately east of Kicks End and the St Albans road, north west of Monken Hadley and north east of Old Fold.

[14] Foard & Morris 2012, 14-15; Foard & Curry 2013, 61 & 180.

[15] Norden *Speculum Britanniae, Description of Middlesex and Hertfordshire* 1598, 14.

Unfortunately, problems are revealed when one considers how Norden depicts other battles. On the Hertfordshire map he shows the second battle of St Albans, which he names 'Bernet Field'.[16] Here he uses an identical symbol to that for Barnet, of troops fighting east-west across a major road, and this symbol appears yet again on the same map with his placing of the, presumably spurious, pre-Conquest battle at 'Danes End'. Thus the Barnet depiction is revealed to be a stylised representation where the exact placing in relation to roads or rivers is almost certainly accidental. It is merely coincidence that a key primary source for the battle states that Warwick deployed along one side of a major road – though significantly the St Albans not the Hatfield road – and was engaged by Edward approaching from the other side of that road. More than this, at St Albans we can see that the symbol is only very vaguely located, for it lies to the north of Sandridge whereas the battle was fought immediately north of St Albans town.[17]

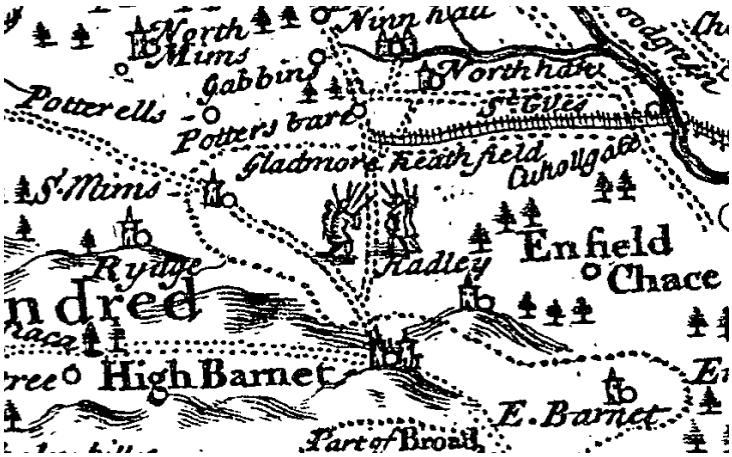

Figure 3: Extract of Norden's map of Hertfordshire showing Barnet battlefield, named as 'Gladmore heath field'.

[16] Norden *Speculum Britanniae, Description of Middlesex and Hertfordshire* 1598, 12.

[17] Norden states it is 'a place called by the inhabitants BERNET FEYLD but I take it rather Brentes field…'. Later he says: 'Bernet feyld k.16. a place vulgarly so called, but corruptly as I take it, it should be rather Brentes feyld, of that Falcatius de Brent spoken of before in S. Albans, who with a troupe of wicked men, about this place robbed and murthered many. In this feyld, was the matter handled by deadly blowes, betweee Queene Margaret leading the favourers of the house of Lancaster, and the complices of the house of Yorke, and where she redeemed the king that was taken before the battell of S. Albans, and gave the kings and her enemies a sound requital.' Norden 1598, 14. This naming has caused other problems, with an early sixteenth-century medical treatise that mentions a 'gentyllman that was shot at Barnarde or Bozard feld which was hurt in the thye with a hackebushe' being incorrectly catalogued as relating to Barnet. Foard& Curry 2013, 142. Norden's 'Bernet' is clearly a corruption of Bernard's Heath, a location immediately north of St Albans medieval town. P. Burley, M. Elliott, and H. Watson, *The Battles of St Albans,* Barnsley, 2007.

Figure 4: Extract of Norden's map of Hertfordshire showing the battle of St Albans II, named as 'Bernet Field'.

Figure 5: Extract of William Smith's 1602 map of Hertfordshire showing the battle of Barnet

Smith's map of Hertfordshire in 1602 closely follows Norden, but Smith has transformed Norden's 'Gladmore heath field' into a spurious landscape feature called 'Gladmore Heath' to the north west of the battlefield, while naming the battle 'Barnett field'. What we begin to see here is the way in which the placing of a battle can be transformed as one map maker misinterprets the details provided by his predecessors.[18] John Speed in his Hertfordshire map of 1611 follows Smith in identifying the battle as 'Bernet field', though his spelling provides further potential for confusion, and he also separately locates Gladmore. However his tent symbol for the battle is placed to the north west of High Barnet and west of Hadley, showing how vague these early depictions usually are.

[18] Ibid., 83-5. J. Norden, *Speculum Britanniae: The Description of Hartfordshire*, London, 1598; J. Norden, *Speculum Britanniae: Middlesex*, London, 1593; Smith's 1602 Hertfordshire map: BL Maps C.2.cc.2(3); C. Delano-Smith and R. J. P. Kain, *English Maps: A History*, London, 1999, 72-4.

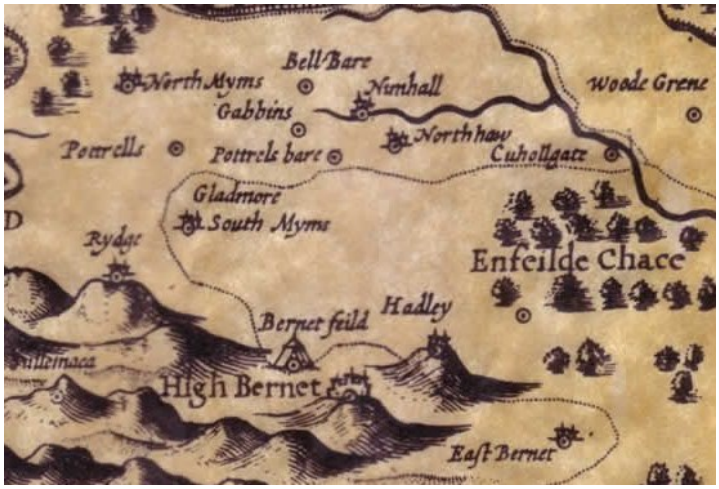

Figure 6: Extract of John Speed's map of Hertfordshire 1610

When larger scale county maps appeared in the 18th century, surveyed to higher standards, greater accuracy in the placing of symbols became possible. Thus Warburton's map of 1724 shows the battlefield, though unnamed, using a single sword which is positioned to the east of the junction between the St Albans and Hatfield roads. He similarly indicates the two battles of St Albans, though with the swords placed in a rather cavalier fashion. Warburton's map was closely copied by Seale in 1770, who places a single sword in the same location but names the battle as Gladmore Heath.

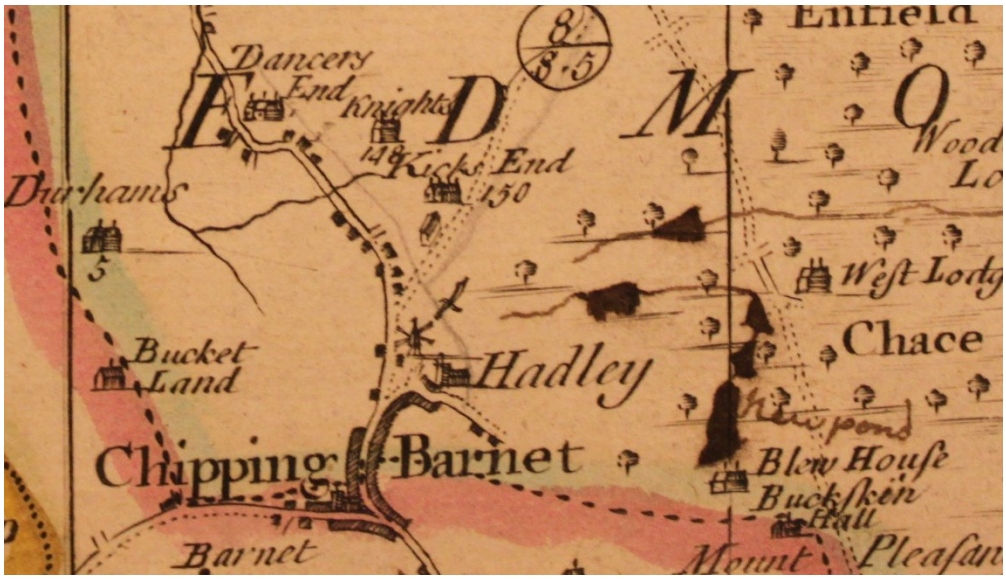

Figure 7: Extract of Warburton's map of Middlesex etc. of 1724 (BL C29f6)

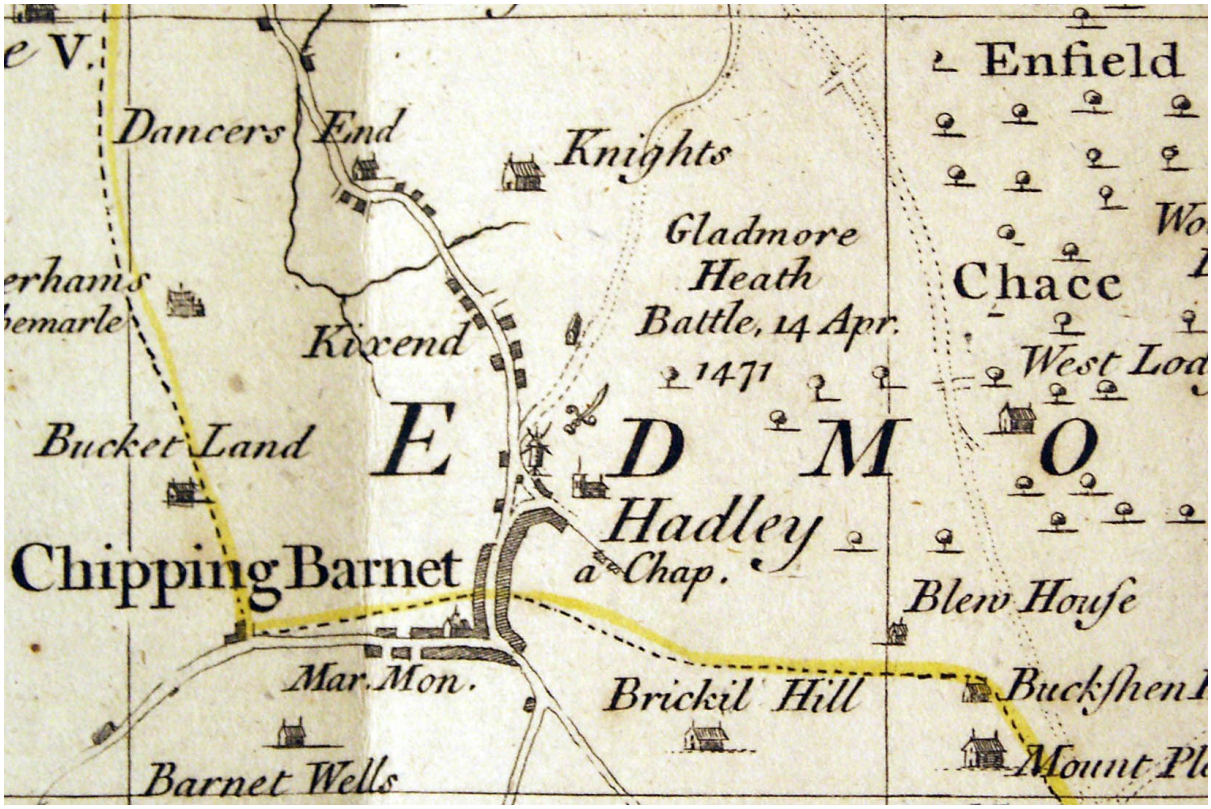

Figure 8: Extract of Seale's map of Middlesex, 1770 (TNA FO925-4121) which closely copies Warburton's 1724 map.

The situation was complicated with the construction of the obelisk monument, now known as the Hadley Highstone. This was erected in 1740 by Sir Jeremy Sambrook and supposedly placed at the site of the battle.[19] Today it stands very close to but not exactly where it was originally erected for, according to a local informant of Brooke, it had stood close to the Two Brewers tavern but was, in about 1841, moved 32 yards towards the South Mimms side.[20] Whether its exact position genuinely reflects a local tradition of the battle must be questioned, given Warburton shows the battlefield further to the east while, as we have seen, the battle chapel probably lay some distance to the north east. The obelisk may simply have been placed at the major road junction for the maximum effectiveness, not least because it also acted as a milestone.

Figure 9: The obelisk memorial to the battle, now known as the Hadley Highstone, as it was in c.1780-1800 (BL Maps K.Top.15.51.1.d.).This image is copyright of the Britsh Library but can be accessed at http://www.bl.uk/onlinegallery/onlineex/kinggeorge/b/003ktop00000015u051d0001.html

Given the presence of the monument it is not surprising then to find Kitchen on his map of 1749 depicting Barnet battlefield, again named as Gladmore Heath, with a single sword placed immediately north of the junction of the St Albans and Hatfield roads.

While not wholly independent of the map record, antiquarian reports provide another strand of evidence as to where the battle was believed to have been fought. No attempt has been made here to trace all antiquarian discussions of the battle, but several important examples are considered. Salmon, writing in 1728 and so well before the obelisk was erected, reported that the local inhabitants took the

[19] Gough, *Camden's Britannia*, vol.1, 350; Lysons, Environs of London, iv, 2.
[20] Brooke 1857, 211 n.1.

battlefield to be 'a green spot near Kicks end between the St Albans road and Hatfield road a little before they meet'.[21] This positioning may relate as much to knowledge of where the battle chapel stood as representing independent knowledge as to the exact location of the action. But according to Gough, writing the late 18th century, antiquaries differed in placing the battlefield, some indicating the junction of the Hatfield and St Albans roads, a place supposedly called Gladsmere heath, while others placed it on Monkeymead Plain.[22] While the former accords with both Salmon and Kitchen, the latter location in Enfield Chase may simply reflect Warburton's perhaps arbitrary placing of his single sword symbol. Despite admitting the battle was then 'generally considered to have been fought on the road to Barnet', Robinson claims, without providing secure justification that the action took place in Enfield Chase within Monken Mead Plain, which he equates with Gladmore-heath. This identification may have a similar derivation to previous such claims, for his specific references to Rapin and to Dugdale do not lead to significant evidence to underpin this association.[23]

Figure 10: Extract of Kitchin's map of Hertfordshire 1749 (Herts DE/Ln/P2)

Rocque does not identify the battlefield on his 1754 map, instead showing the recently constructed obelisk lying at the junction of the two major roads. It is again the monument which is depicted on the more detailed Ordnance Surveyor's Drawings in the early 19th century, while the first highly accurate survey, the Ordnance Survey 1:10560 mapping in the 1870s, specifically names the battle in relation to the obelisk.

[21] Salmon, 1728, quoted by Warren 2009.
[22] Gough, 1789 *Camden's Britannia*, v.1, 350.
[23] Robinson, 1823, *The History and Antiquities of Enfield*, vol.1, 217-21.

Figure 11: The obelisk monument as depicted on Rocque's map of Middlesex of 1754.

Figure 12: Ordnance Surveyors Drawings 1805 (British Library, sheet 149)

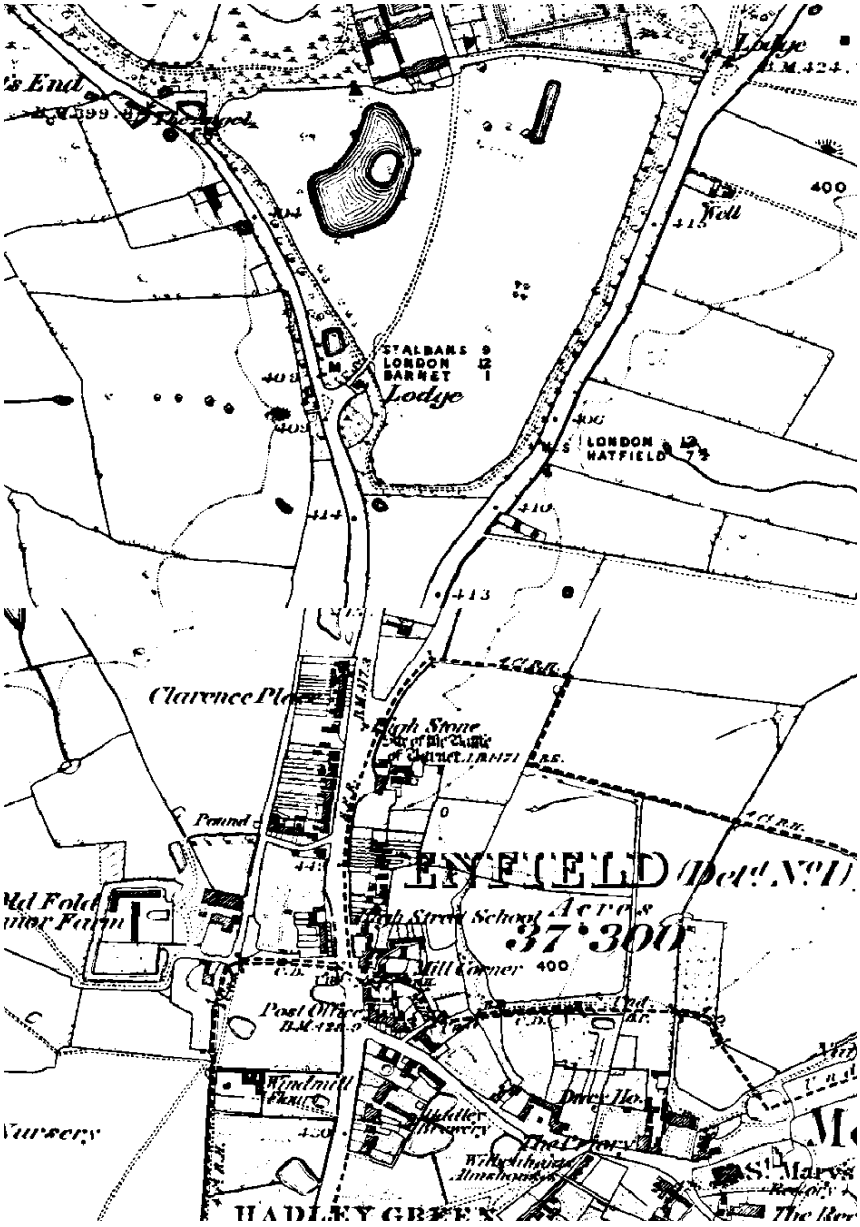

Figure 13: Extract of 1st edition 6 inch Ordnance Survey 1873-7

From at least the mid 18th century an additional and potentially independent strand of evidence begins to appear in the antiquarian reports – the artefactual evidence they believed to relate to the battle. The principal example from Barnet, reported in 1743, is a 1.5 pound cannonball dug up by the landlord of the Red Cow tavern, which stood adjacent to the obelisk. It is not specified whether the projectile was of lead, iron or stone.[24] Unfortunately there is no way in which now to verify the validity of the identification such objects, in the absence of the objects themselves. This is important because at Bosworth, where there are drawings of some of the 18th and 19th century finds said to be from that battle, it is clear that most if not all are much later in date.[25]

The one fairly consistent association, from the later 16th century through to the 19th century, is the link between the battle of Barnet and the name Gladmore Heath. This is an issue which has some parallels to the problem of Redemore at Bosworth, in the way that early records were misunderstood and

[24] Gentlemans Magazine, 1743, vol.13, 429.
[25] Foard & Curry, 2013, 99.

reinterpreted, resulting in the feature moving across the landscape. But, unlike Redemore which was a real feature and crucially one that appears in the earliest records of the battle, the Gladmore link to Barnet is wholly spurious and needs to be firmly extinguished. The name does not appear in any contemporary or near contemporary report of the battle. It may only become attached to the battle in the later 16th century, when it appears in Holinshed's Chronicle.[26] It derives from a medieval prophecy of Thomas the Rhymer in which the fate of England is decided in a battle of 'gladys more'. In the late 15th century this and related prophecies began to be linked to the Tudor accession to the throne and hence became linked to Barnet, as a key battle of the Wars of the Roses.[27]

Despite the shift in location of the battle, in so far as early records are amenable to accurate spatial positioning, all do focus the action in an area of no more than 50ha to the north of Monken Hadley and south or south east of Kicks End. However, there is a danger here of circular argument for it is quite likely that local memory of the battle became inextricably linked to the existence of the chapel at quite an early date. This will in turn have influenced the location recorded on historic maps, with the latter then seemingly having taken on a life of their own. There are therefore no wholly independent strands of evidence until, possibly, finds then believed to be from the battle begin to be reported in the mid 18th century.

Beginning in the 19th century we move into a second phase of reinterpretation of the battle location, reflected in the large number of secondary works, starting with those written by early antiquaries through to modern authors. No attempt has been made here to identify and review all of these, but we have assessed a few examples which provide a perspective on the changing interpretation of the battle and its location during the last two centuries. These works demand separate consideration as they reflect a new approach to the study of battlefields, applying more objective reasoning rather than relying solely upon the often questionable evidence of local tradition, historic maps and early antiquarian reports. Their method involved analysis of the primary accounts of the battles alongside an inspection of the landscape itself, in order to better understand both where the action took place and exactly how and where the armies were deployed. This methodology seems first to have been clearly stated by Hutton in 1785 in relation to Bosworth, even if he did not effectively follow those principles himself.[28] The approach was further developed in the 19th century by Fitzgerald, principally at Naseby in the 1840s, and by Brooke working on various 15th century battlefields in the 1850s.[29] Interestingly we find that at Barnet the approach was already being applied in 1844 by Kempe. During the 19th and 20th centuries at Barnet such work resulted in significant changes in interpretation, as authors attempt to place the battle deployments with increasing accuracy in the modern landscape, encouraged by the progressive introduction of increasingly accurate mapping by the Ordnance Survey between the 1830s and the 1880s.

[26] *Holinshed Chronciles*, ed Harrison & Stanyhurst 1808, 3, 312
[27] T. Thornton, 'The Battle of Sandeforde: Henry Tudor's Understanding of the Meaning of Bosworth', *Historical Research* 78, 2005, 436–42. R. Rutter, 2004 'Printing, Prophecy, and the Foundation of the Tudor Dynasty: Caxton's Morte Darthur and Henry Tudor's Road to Bosworth', 128-130 in *Prophet Margins. The medieval vatic impulse and social stability*. Thanks to Thornton for additional guidance on this matter.
[28] Foard & Curry 2013, 5.
[29] Foard 1995, 354; Brooke 1857.

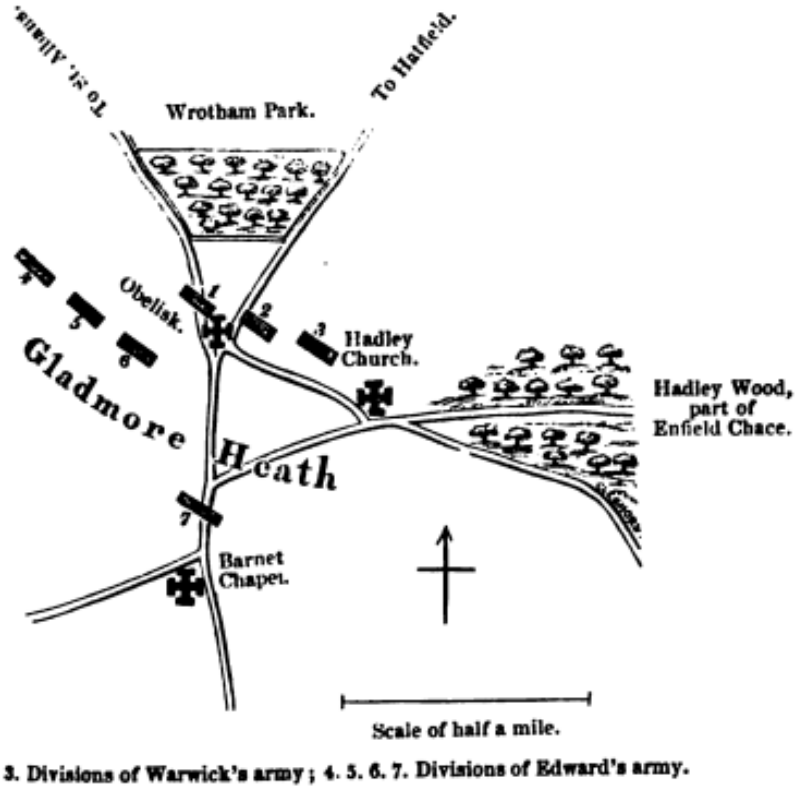

Figure 14: The first plan showing battle deployments for Barnet (Kempe 1844).

The first detailed analysis seeking to achieve this for Barnet appears to be that in 1844 by Kempe, a London based antiquary.[30] He follows Hutton's principles; he had access to all the major primary sources that we use today except, most significantly, Von Wesel; and he based his analysis on a personal inspection of the site. His plan of the deployments, possibly the first for Barnet, has the troops a little further south than local tradition and historic maps might indicate but in a broadly east-west orientation, so acknowledging this key fact specified in the primary source the Arrival. However the overlap he shows between the two arrays reverses the true situation, also specified in the Arrival, placing the Yorkists too far to the west rather than too far to the east. He was working without knowledge of the site of the battle chapel (he shows only the surviving chapel in Barnet town), but uses the obelisk and refers to the History of Enfield by Robinson, which actually places the action on Monken Mead in Enfield Chase.[31]

When Brooke visited Barnet in the 1850s, as part of his national study of late medieval battlefields, like Kempe he followed previous misinterpretations in believing that the battle had been fought in a place called 'Gladmore Heath', which he noted was now enclosed. The written sources used by Brooke included Holinshed, Warkworth, Stow, Hall and Paston, together with items in Leland's collections, though he does not specify the Arrival and again, critically, he lacked access to Von Wesel. Not surprisingly, in the absence of the latter he observed that one could not gain enough from the original sources to be able to effectively place the action.[32] So he also drew upon local tradition and the physical placement of commemorative features in the landscape but, perhaps wisely, did not make an attempt to depict the deployments in the modern landscape.

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[30] A.J.Kempe, 1844, 'Notes on battle fields and Military Works: No1 Barnet Field.', *Gentlemans Magazine*, 249-255.
[31] Robinson, 1823, *The History and Antiquities of Enfield*, vol.1, 221.
[32] Brooke 1857, 205-211.

Later in the century Cass broadly followed Kempe's interpretation, although placing the action even further south, firmly on Hadley Green and with the battle lines extending east towards Hadley Church. He also refers to the tradition that the obelisk marks the spot where Warwick fell, questioning its validity with reference to Warkworth's account which describes Warwick being killed in flight well away from the battlefield.[33]

Later authors provide us with even more varied placement of the battle arrays. Perhaps the most honest is Barrett, who gives a stylised deployment plan presenting the principal topographical features mentioned in the accounts to which he had access but not attempting to place this accurately in the modern landscape.[34]

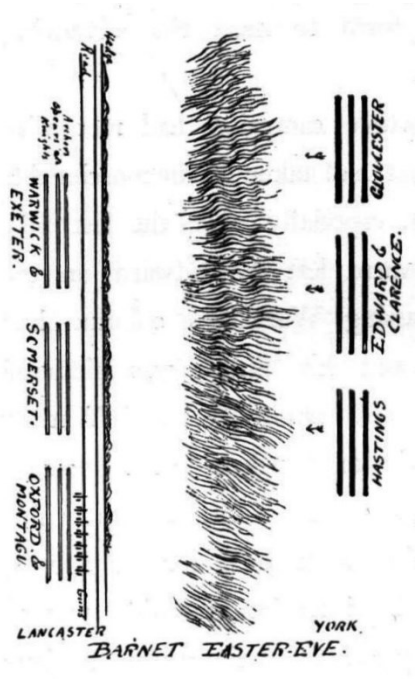

Figure 15: Stylised plan of deployments from Barret 1896.

Ramsey shows a more northerly placement of the deployments than Cass, beside the High Stone, but is either unaware of or simply dismisses the clear evidence in the Arrival for an east west orientation, instead showing the armies arrayed north south.[35]

[33] Fredrick Charles Cass, 1882, 'The Battle of Barnet', *Transactions of the London and Middlesex Archaeological Society*, vol.5, p.22.
[34] Barrett, 1896, 192.
[35] James Ramsay, 1892 *Lancaster and York.*

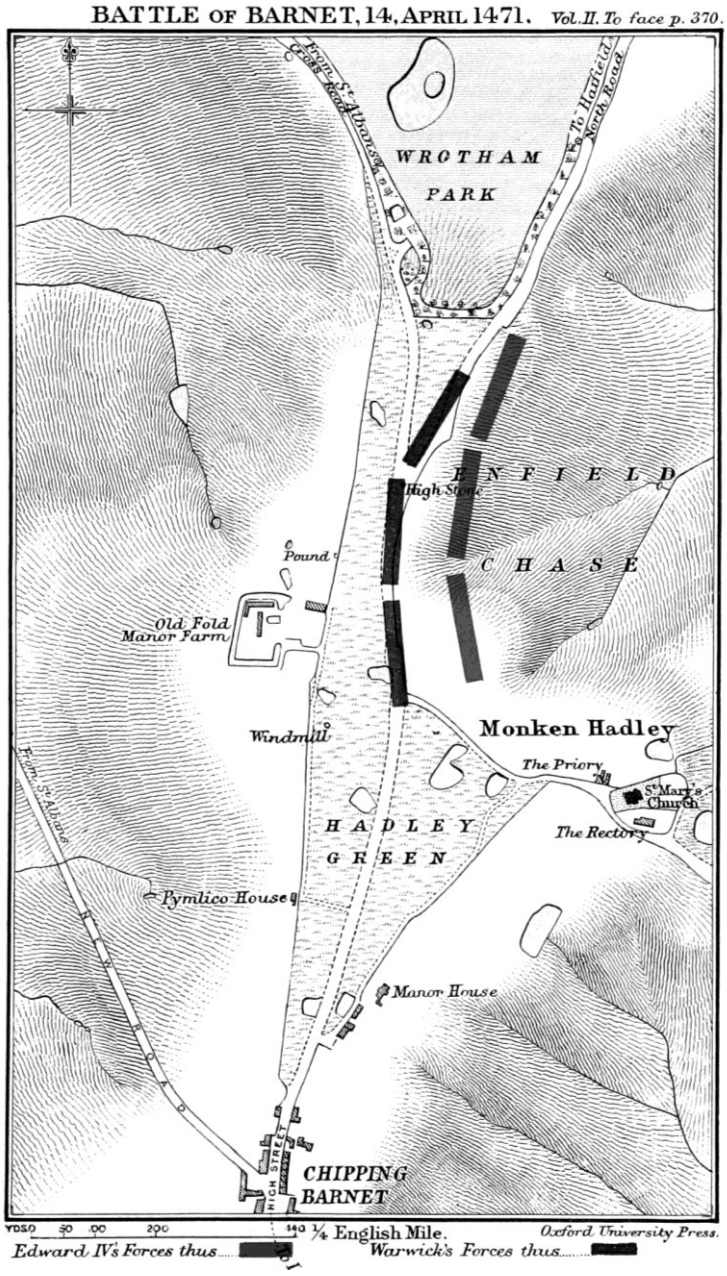

Figure 16: Ramsey's north south alignment of the battle arrays, but still focussed on the obelisk.

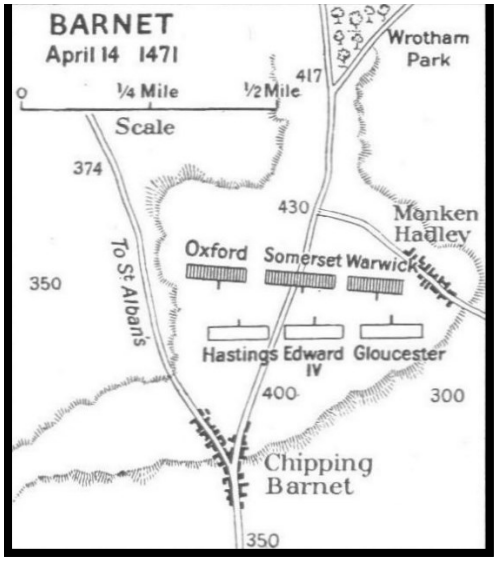

Figure 17: Deployments from Oman 1898.

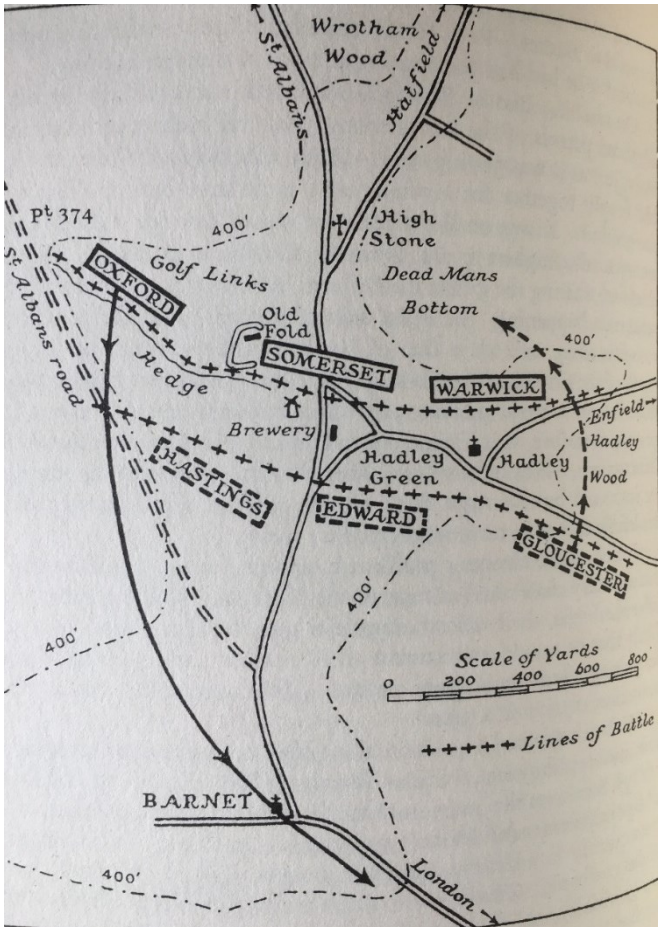

Figure 18: Deployments as defined in Burne 1950, including topographical details for which no documentary justification is given and which appear spurious, such as the hedge and Wrotham Wood, and others which are misplaced, notably Dead Mans Bottom.

Oman in contrast returns to the Cass interpretation, placing the action on Hadley Green with the two armies deployed east-west across the main road, so accommodating the detail in the Arrival.[36] This view was refined by Burne, who sought to identify the hedge described in the Arrival which he claimed, specifying the evidence, was an east-west boundary beside Old Fold. It was this interpretation that was followed by Hammond, and subsequently by English Heritage in their definition of the battlefield boundary for inclusion in the new Register of Historic Battlefields in 1995.[37]

Over the last two decades we have come to realise that Hutton's new approach, even when properly applied, has often confused rather than improved our understanding as to where the action really took place, especially with medieval battles. At Barnet the approach has seen varied orientations proposed for the battle deployments and, most importantly, a shift southward of as much as a kilometre in the supposed focus of the action. The inconsistency between authors is in part because the topographical detail in the primary sources is so sparse, although in some cases it also reflects a failure to take full account of all that detail. Above all it results from a lack of understanding of the ways in which the landscape has changed over more than five centuries since the battles of the Wars of the Roses were fought. In an attempt to address such shortcomings, the current methodology of battlefield archaeology takes account of understanding developed since the 1950s as to how the historic landscape of England has evolved, and applies the techniques developed to reconstruct its earlier character. If adequate surviving evidence can be identified to enable an adequate reconstruction then the topographical detail in the primary sources can at least be sought in the right context.

In the case of Barnet the problem with modern interpretations of the battlefield location was first identified in 1970, when Baker's careful application of techniques of local historical research on the historic landscape revealed the probable site of the battle chapel. As we have seen, the site had been lost to authors of the 18th through to the later 20th century, and this allowed them to push the site progressively southward. Baker's work was then followed up by the Victoria County History and finally, in yet more detail, by Warren. He sought to return the battle to the location it had in the 16th century, an interpretation followed in more recent assessments.[38]

The objective of the present study has been to apply the full range of techniques now available for the investigation of battlefields, reworking all the evidence from first principles. The following chapters examine the three principle strands of that methodology: reanalysis of the events from the primary sources for the battle; reconstruction of the historic terrain to more effectively employ the topographical detail in the battle accounts and to seek tactically significant attributes of that landscape; and finally to test the resulting hypotheses through a survey for the independent evidence of battle archaeology – though in reality in this project the constraints of time meant that the latter investigation had to be conducted in parallel with the other two strands, guided by a rapid assessment of the immediately available evidence.

[36] Oman 1898, *The Art of War in the Middle Ages*.
[37] Burne 1950; National Army Museum 1995b; Hammond 1990.
[38] B Warren *Reappraisal of the Battle of Barnet 1471*, Potters Bar and District Historical Society 2009; Foard & Morris 2012, 84.

2. The documentary evidence for the battle

The Wars of the Roses are remarkable for how few primary accounts exist for most battles, especially eyewitness accounts, and the paucity of detail that they provide. This contrasts dramatically with major battles in Britain in the 16th century and indeed some important contemporary and earlier continental actions. The following discussion brings together information from all the primary accounts of the battle of Barnet that provide significant detail of the events or their location, but it does not claim to be an exhaustive analysis of all primary sources which mention the battle. We have also included alongside these sources a number from later in the 16th and even early 17th century, which might best be considered secondary, but which contain potentially valuable information not otherwise reported. Neither are the themes covered here exhaustive, for example leaving to others the study of exactly who fought in and who died in the battle.

There are five primary accounts of the battle of Barnet which provide significant detail – more than for most other battles of the Wars of the Roses – but there is no substantial eyewitness accounts. The Paston letter, although apparently written by a combatant soon after the battle, contributes little that is relevant to our purpose although that which he does provide should probably be given particular weight: that the battlefield was half a mile from Barnet and, after listing the most important casualties that over 1000 others were killed.[39] However the letter of the German merchant Von Wesel is an exceptional source. Though not an eye witness he provides a remarkable level of detail including militarily significant matters. He reports the events within days of the battle, was present in London at the time and was of sufficient status to have met with senior officers from the victorious army.[40] He provides specific topographical detail, which is likely to be genuine for it serves no obvious propaganda value, being the sort of evidence one might expect in first-hand accounts – meaningful only in understanding tactics and thus what an officer who took part might consider worthy of comment. However, given that he wrote in his first language, a distinctive early dialect of German, which has then been translated back into English there is potential for drift of meaning, especially with technical military terms. The other major source is the Arrival, a highly partisan Yorkist account, which provides considerable information about the action but contains little topographical information, though again such detail as it gives is likely to be genuine as it is only relevant in understanding the tactical context of the action. As it was written in English there is far less potential for misinterpretation, but any second hand account, like this or Von Wesel's, may include subtle changes in meaning if the author was summarising evidence from several informants to compile a single narrative.

Reports compiled within days or weeks of a battle do not suffer the problem of eye witnesses' decay of memory with time, but incompleteness and biases will result from the 'fog of war' influencing what any particular eyewitness informant had seen and indeed of this what had actually registered in his mind in the confusion of battle. In addition timing, distance and compass orientation all had to be estimated by an eyewitness, thus providing further potential for distortion. For example, the position of the sun would only give them an approximate time of day, although through regular application the officers of the period will have had better judgement in this than most modern observers. Another problem is that when describing directions one often finds informants using only the four cardinal compass points. Accuracy in this could also be influenced by the subtle effect of slope on perception

[39] Sir John Paston to Margaret Paston, Paston Letters v.3,p.4 (18/4/1471 no.668).
[40] John Adair, *Journal of the Society for Army Historical Research* 1968.

of direction – as anyone will know who is used to relating compass directions given in open field terriers to real compass directions when linking them to surviving archaeological evidence for those furlongs.

Sources more distant in time, such as Vergil's history which was written more than 40 years after the battle, or distant in space as with the Crowland Chronicle compiled more than 100k away in Crowland Abbey, might sometimes provide extensive description yet convey little of substance. Finally there are the highly derivative sources, largely copies from an earlier work, as with Waurin who derives most if not all his information from the Arrivall, and Hall who derives his information almost wholly from Vergil. Yet such distant or derivative sources must still be considered as occasionally they do add information not recorded elsewhere, though this has to be treated with caution.

2.1 The events

Edward IV landed at Ravenspur in Holderness on 14th March with a Yorkist army of between 1000 and 2400 men, a substantial proportion of which were Burgundian troops and included 300-500 Flemish handgunners. In response Warwick left London for the Midlands to marshal the Lancastrian forces. As Edward marched first to York and then southward he was not engaged by the Lancastrian troops in the region, who may have felt too weak in number or perhaps in experience as they were facing an army likely to have comprised veterans.[41]

Unlike some other periods of warfare in England, most notably the Civil War, in the campaigns of the Wars of the Roses there was a desire at least on one side or other, once they had collected a substantial army, to bring the enemy to battle at the earliest opportunity. Thus on 27th March the Yorkists marched to face the city of Coventry, a Lancastrian stronghold where Warwick had withdrawn with his forces. Still awaiting reinforcements, Warwick refused to march out to give battle, so Edward besieged the nearby Lancastrian castles of Kenilworth and Warwick. On 3rd April Edward was joined by his brother the Duke of Clarence with the troops the latter had raised, ostensibly in support of Warwick.[42] The next day a Yorkist detachment skirmished with troops at Leicester as the Lancastrians continued to draw together their army. So now Edward decided to march to London, where he had significant support, to further increase his own forces. Warwick followed about a day's march behind. As Edward approached, on 8th April Yorkist prisoners in the Tower of London rose up and took control of this strategically important site, and then on the 10th Edward entered the City with his army, where he took Henry VI prisoner.

Warwick marched south along the London-Holyhead road, which at that time passed through Coventry, halting at St. Albans on the 12th, 'partly to refresh his soldiers, and partly to take counsel'.[43] This Council of War will have reviewed tactical options, particularly where and how to deploy to engage the Yorkists in the forthcoming battle. The next day, Saturday 13th April, Warwick resumed the march towards London. The main road ran through Barnet and it was here that he decided to deploy.[44] Barnet is about half way between London and St Albans, so Warwick must have

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[41] P. Hammond, 1990, *The Battles of Barnet and Tewkesbury*.

[42] Commines claimed that it was not until the two armies faced each other that 'the duke of Clarence, King Edward's brother, deserted to him with more than twelve thousand troops, which greatly distressed the earl of Warwick and greatly reinforced the king who had few men.' Commines, iii, 7.

[43] Vergil, copied by Hall, but according to Hammond it derives from Waurin.

[44] According to Vergil, Warwick '*turned aside at St. Albans to a village lying between St. Albans and London, about ten miles from the city, called Barnet...'*. In this he is copied by Hall: *'And from sainct Albones, he*

been ready to deploy long before Edward arrived and so was able to choose the ground on which to fight. Edward only learnt at midday that Warwick was marching to give battle. He then mustered his forces in St John's field near Smithfield, but it was not until around 4:00pm that day that Edward finally marched north out of London along the St Albans road.[45]

Claims as to the size of the two armies as they approached the battlefield vary wildly between the primary sources, with different sources giving different armies the dominance in numbers. This is surely a combination of the varying allegiance of the source compounded by the tendency of late medieval accounts to grossly inflate numbers. According to Wesel, while in London Edward had 15,000 troops but when he mustered his forces there on the 13 April there were 20,000. In contrast Warkworth says Edward had just 8,000 men compared to Warwick's 20,000 and with the Earl of Oxford's retinue alone within the latter comprising 800 men. The Arrivall, another Yorkist source and one which was closely copied by Waurin, has 9,000 Yorkists and 30,000 Lancastrians. In contrast Vergil, though of course writing decades later, states '….*Edward, relying on his numbers, in which he was far superior…'.*[46] Assessing the evidence Hammond suggests 12,000 Yorkist and 15,000 Lancastrian.[47] Historians discussing late medieval battles currently reduce their estimate of numbers even more, as can be seen in the case of Bosworth.[48]

It seems from the Arrival that, as might be expected, both commanders sent out scouts or 'aforne-riders' ahead of their army. These will have sought to locate the enemy, assess his strength, and report his manoeuvers. With this intelligence the commanders could prepare for developing threats and be ready to exploit vulnerabilities revealed in their opponents' actions. Vergil may provide further evidence as to the care taken by the commanders when in such close proximity to the enemy, when he describes the tactical formation in which Edward marched from London. However, given that Vergil was writing in the early 16th century and that almost identical terms are in common use later and with distinctive meaning, as we can see from Audley's military manual of c.1540, this tactical detail may be an anachronism inserted by Vergil based on new early 16th century military practice: *'And so he would be readier for a fight wherever he found them, should needs be, he marched in square formation. He took along the captive Henry, perhaps with the idea that the enemies, seeing their king in a battle, would be terrified, or, if the fortune of war was adverse, that by means of Henry he might be saved.'*[49]

Such precautions were prudent for, according to Wesel, within three hours of Edward leaving the City there was an initial skirmish between the advance forces: *'Around seven o'clock in the evening, as King Edward marched away from here and came into the vicinity of Hornsey Park, six miles from London, Warwick's vanguard encountered him and they had a skirmish thereabouts and they chased each other in the dark as far as a village called Barnet, ten miles from London….'*. Yet no other source makes reference to action near Hornsey Park. The Arrivall, copied by Waurin, has a skirmish but this is only between the scouts and it is placed in Barnet itself: *'… and soo, that aftar none, he (Edward) roode to Barnete, x myles owte of London, where his aforne-riders had founden the afore-riders of th'Erles of Warwikes hooste, and bet them, and chaced them out of the towne…'*. It seems improbable that a major encounter between the Yorkist and the Lancastrian vanguards would have

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remoued to a village in the meane waie, betwene London and sainct Albones called Barnet, beyng tenne mile distaunt from bothe the tounes.'

[45] Wesel

[46] Vergil

[47] Hammond includes a discussion of numbers and sources. As regards the 300-500 Flemish gunners see Hammond p.70 and 56n.1.

[48] Foard & Curry 2013, ch 2.

[49] Vergil; T. Audley, *c.* 1540, *Arte of Warre,* reprinted 2002.

been omitted by all other sources so, if Wesel is correct in placing the action then it must be the Arrival which is in error over location, but Wesel who confuses the nature and scale of the action.

While these pre-battle events are valuable in giving insight into the tactical decisions faced when an army of the period was marching in close proximity to the enemy, and in providing evidence on the rate of march of such armies, the conflicting details given by different sources is not a problem which we need to solve for our present purpose. Wherever this initial encounter took place and whatever its scale, it will make little difference to our understanding of the battle itself and where and how it was fought. Though the questions it raises over the accuracy of the Von Wesel account must be considered when we come to use the topographical details only he provides.

The terrain around Barnet will have been well known to many of the senior offices, lying as it did on one of the two most important roads from London to the North. As Vergil neatly explains: *'This hamlet is set on a hill which has a flat space on its top, suitable for a battlefield. Here the earl encamped and awaited his enemies.'*[50] That Warwick did indeed choose the ground on which to fight and that this lay at least half a mile but perhaps as much as a mile north of the town is explained by several sources. The Arrival says Edward's scouts chased the Lancastrians *'…out of the towne, more some what than an halfe myle; when, undre an hedge-syde, were redy assembled a great people, in array, of th'Erls of Warwike.'*[51] This is a distance supported by our only eyewitness, Paston, who was writing within a short time of the battle and as such should probably be given particular credence.[52] Wesel indicates a slightly longer distance and he too makes clear this was beyond, that is to the north of, Barnet along the main road: *'… Warwick and his lords and companions who had been in Coventry pitched their battle a mile beyond the said village, just beside the highway to St Albans on a broad green plot…'.* It is unlikely that the author of The Great Chronicle of London had access to Wesel's letter, yet it also claims Oxford, the Lancastrian vanguard commander *'pycchid his ffeyld upon the playn wythowth the toun well lyke a myle thens…'.*

Wesel adds that *'Warwick set up his ordnance of arquebuses and serpentines up the way towards Barnet…'* While he probably means the St Albans road one cannot be certain because the other major road, to Hatfield, runs southward to join the St Albans road immediately south of Kicks End, and thus also leads towards Barnet. The earliest military manual to provide detail on the tactical deployment of artillery is that by Machiavelli, although as this was not published until 1521 it does not necessarily describe the tactics in use in the 1470s.[53] He describes two alternative ways of deploying ordnance: either on the two flanks or all along the frontage to the fore of the battle array. If this was a continuation of late 15th century practice then Warwick may have placed half his artillery on one flank of his army facing down the road and half on the other flank. However subsequent detail from Wesel might suggest that he means the guns were placed actually on the road just to the fore of his three battles, facing across the road.

Of the deployment of the armies Warkworth simply says: *'it happenede that he (Edward) withe his oste were enterede into the toune of Barnet, before the Erle of Warwyke and his host. And so the Erle of Warwyke and his host lay witheoute the towne alle nyght…'.* In contrast, some sources claim that Edward established a camp at Barnet, even Wesel stating Edward's army '*set up their camp*'. The Crowland Chronicle says Edward: '*quitted the city with his army, and passing slowly on, reached the town of Barnet, a place ten miles distant from the city; and there pitched his camp….'.* Vergil goes

[50] Vergil. Hall is a copy: '*This toune standeth on an hill, on- whose toppe is a faire plain, for twoo armies to ioyne together, on the one part of this plain, the Erie of Warwicke pitched his feld, tariyng for his enemies'.*
[51] Arrivall. Waurin is a copy: *'…[Warwick] was at half a league distant [from Barnet] under the cover of a hedge (soubz la costiere dune haye) ready and arrayed in battle formation.'*
[52] Sir John Paston to Margaret Paston, Paston Letters v.3,p.4 (18/4/1471 no.668).
[53] Niccolò Machiavelli, 1521, *The Art of War*

further: *'After noon he arrived at the hill near Barnet, and there he encamped not far from the enemy. So as not to be obliged to fight a night battle, he surrounded his camp with new earthworks. For delay was advantageous to him, since many were coming from all sides bearing aid. On the other hand, it was harmful to the enemy, for they, far from their supporters, had no hope for reinforcements. Both sides spent the night in arms.'*[54] There is a good deal here, in Vergil, which is at odds with the principal accounts. The suggestion that Edward constructed earthwork defences is surely invention. Given Edward's late arrival, his proximity to the enemy and, as we see from the Arrivall, his need to be quiet, it is improbable that defences could or would have been constructed. No other source supports the claim. More importantly, while Vergil states the two sides 'camped' he also says that both sides 'spent the night in arms', implying they were actually in battle array. This suggests that, at least in some sources, 'camp' is being used in a confusing way simply to indicate an overnight stop. The Arrivall is specific that Edward deployed in the field that night: *'The Kynge, comynge aftar to the sayde towne, and undarstanding all this* [that Warwick was deployed over half a mile from the town], *wolde [ne] suffre one man to abyde in the same towne, but had them all to the field with hym, and drewe towards his enemies, without the towne...where he disposed all his people, in good arraye, all that nyght…'* Being in the face of the enemy, neither army had much option other than to remain in battle formation until morning.

Despite the intelligence from his scouts as to Warwick's position, Wesel says Edward had problems in deciding exactly where to deploy: *'…and King Edward's people, not really knowing in the night where the opposing parties were, also in the night rode onto the same plot and set up their camp on the other side of the aforesaid highway* (the St Albans road)*, just opposite Warwick, in a hollow and marsh.'*[55] This is in part confirmed by the Arrivall, which adds detail crucial to understanding why the events played out as they did the next day: '*for it was right derke, and he myght not well se where his enemyes were embataylled afore hym, he lodged hym, and all hist hoste, afore them, moche nere[r] then he had supposed, but he toke nat his ground so even in the front afore them as he wold have don yf he might bettar have sene them, butt somewhate a-syden-hande, where he disposed all his people, in good arraye, all that nyght;…'*[56] This offset between the two battle arrays, with each vanguard overwinging the opposing rearguard, would play a major role in the way in which the action unfolded the next day.

Hall gives the actual battle formation of both armies, though he is clearly wrong in his idea that only in the morning did Warwick deploy his troops: *'But when the sky began to lighten, Warwick thus disposed his lines. On the left wing he stationed his brother the marquis and the Earl of Oxford with part of his cavalry, he held the right with the Earl of Exeter, and the Duke of Somerset presided over the middle between the two wings'*. Of Edward's deployment Hall says: *'In the forward he set the duke of Gloucester, the middle ward, he himself with the Duke of Clarence, hauyng with them kyng Henry, did rule and gouerne, the lorde Hastynges led the rereward, and besides these thre battales, he kept a compaignie of (fr)eshe men in store…'* The latter deployment is also given by the Great London Chronicle which described the Yorkist army marching out of London, with Gloucester

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[54] Virgil copied by Hall: *'On Easter ene at after noone he came to Barnet, and there not farre from his enemies, he encamped his army, and least his enemies should compel him to fight that night, he enuironed his campe with newe fortifications and trenches.'*

[55] Wesel

[56] Copied by Waurin: *'The king arrived in the town of Barnet, hearing news by his scouts (avantcoureurs, literally fore riders), did not wish to allow anyone to stay in that town and therefore commanded that all should take themselves to the fields in his company. But since night was approaching and he could not see his enemy, who, as was noted, were arrayed in battle order, he lodged himself and all his host as close to them as he could, and put his men into good order, commanding that that night no one should make any noise.'*

commanding the vanguard or 'forward', Hastings the rearguard or 'rearward', and the King with Clarence the main battle or 'middle ward'.

Subsequent accounts of the action confirm the three battles were deployed side by side with, according to normal military rules of seniority, which is with the vanguard on the right, main battle in the centre, and the rearguard on the left. But this seniority also means Hall must be wrong in placing Oxford on the left, for as vanguard commander he would have had the place of seniority on the right wing.

Commenting later on the impact of the uneven positioning of two battle arrays the Arrivall provides important additional evidence, including the apparent strength of each wing: '*and so, at that end, they* (the battle on the Lancastrian right wing) *were myche myghtyar than was the Kyngs bataile at the same [end] that ioyned with them, whiche was the west ende, and, therefore, upon that party of the Kyngs battayle, they had a gretar distres upon the Kyngs party, wherefore many flede towards Barnet, and so forthe to London.....And, in lykewise, at the est end, the Kyngs batayle, whan they cam to ioyninge, ovarrechyd theyr* (the Lancastrian) *batayle, and so distresyd them theyr gretly…'.*

Battle accounts as well as later military manuals show that the greatest strength and experience of an army was typically placed in the vanguard, thus seeking advantage on the right wing. While many tactical considerations were different in a late medieval compared to an early modern battle, a similar focus of strength in the vanguard is to be expected. At Barnet this will have reinforcing the impact of the offset deployments upon the progress of the battle. Certainly at Bosworth it was Oxford's vanguard which won the battle, though the circumstances of that battle meant very unusually that it was the two vanguards which engaged. Two years later at East Stoke the Earl of Oxford again won the battle using just his vanguard against the whole rebel force.

It is clear from this evidence, and confirmed by the way the action opened the next day, that not only did Warwick choose the ground on which to fight but, in exploiting the hedge adjacent to the main road and with the ground falling to some degree towards the enemy, he was taking up a commanding defensive posture and forcing Edward to attack him. It would appear from Wesel that the Lancastrian array controlled the St Albans road and, depending on where exactly the battlefield lay, may also have controlled the Hatfield road, with the artillery possibly deployed to deter attack along the road or roads.

Gunpowder weapons played a significant role at Barnet and, for a battle of the Wars of the Roses, they are discussed in unusual detail by the sources. Both armies had guns but, according to the Arrivall, they were far more numerous in Warwick's army. It could be argued that this is simply a reflection of Yorkist bias in the source. However, given that Warwick had control of the major arsenals in England prior to Edward's return from exile, and that Edward is perhaps unlikely to have been able to bring a large train of field artillery from the continent, this could be a genuine reflection of the relative equipping. As to the exact types of guns present and how and when they were used there is uncertainty due to the contrast in wording from Wesel and the Arrival, compounded by the more general difficulty in relating late medieval terminology for gunpowder weapons to particular examples which survive today. Wesel reports Warwick having '*ordnance of arquebuses and serpentines*' while the Arrivall distinguishes between '*goons, and ordinaunce'.* Ordinance was a term used in this period for all types of gun, though Wesel then seemingly distinguished handguns from artillery (in the German: *'ordinancie van bussen und serpentynen'*). Unfortunately his subsequent comment about their use confuses matters further for he has the arquebuses firing overnight, not the serpentines, though he does claims that Warwick's *'arquebuses carried over all night long and did not reach King Edward's people.'*.[57] But from the Arrival the context implies only artillery could be

[57] Wesel.

meant, because only they would have had the range to have overshot the enemy during the night, which might be why the Arrivall here uses the term *'goons'* rather than *'ordinaunce'*. It says of Edward's army: *'....and so they kept them still, withowt any mannar langwuage, or noyse, but as lytle as they well myght. Bothe parties had goons, and ordinaunce, but th'Erle of Warwike had many moo then the Kynge, and therefore, on the nyght, weninge gretly to have anoyed the Kynge, his hooste, with shot of gonnes, th'Erls fielde shotte gunes almoste all the nyght. But, thanked be God! it so fortuned that they alway ovarshote the Kyngs hoste, and hurtyd them nothinge, and the cawse was the Kyngs hoste lay muche nerrar them than they demyd. And, with that, also, the Kyng, and his hoste, kept passinge great silence alnyght and made, as who saythe, no noyse, whereby they might nat know the very place where they lay. And, for that they shulde not know it, the Kynge suffred no gonns to be shote on his syd, all that nyght, or els right fewe, whiche was to hym great advauntage, for, therby, they myght have estemed the ground that he lay in, and have leveled theire gunns nere.'*[58] Once again we find Warkworth at odds with the main accounts for, although the Arrivall admits that Edward may have given limited fire, Warkworth claims *'....eche of them loosede gonnes at othere, alle the nyght.'* Vergil's imagination again seems to make him strays further from the truth: *For because of the closeness of their camps such a great racket of men and horses was heard that neither side dared sleep.'*

Thus our two most detailed accounts, the Arrival and Von Wesel, which are also likely to be independent of each other, both specify overnight gunfire makes it almost certain that there was an extensive use of guns overnight. This is not exceptional for the period as at Ludford in 1459, where the two armies deployed in the evening, a similar overnight artillery exchange took place, though here Yorkists then fled before the two armies could engage in the morning.[59] While the Arrivall specifies the failure of Warwick's artillery to hit Edward's troops was a result of overshot, because Edward was far closer than Warwick thought was the case, it might also in part have been because Edward, according to Wesel, had deployed in low lying ground. Both may be correct, but simply drawing upon the reports of eyewitnesses who were deployed in different parts of the Yorkist array.

The battle began soon after daybreak. The Crowland chronicle simply states: *'In the morning a dreadful engagement took place, in which there fell various nobles of either party'*. Wesel is more specific: '*In the morning at dawn around four o'clock they made each other out, but then a very thick fog came, which was also in London, so that they could not see the other side well.'* In this he is supported by Warkworth: *'And on Ester day in the mornynge, the xiiij. day of Apryl, ryght erly, eche of them came uppone the othere; and ther was suche a grete myste, that nether of them myght see othere perfitely; ther thei faughte, from iiij. of the clokke in the mornynge unto x. of clokke the fore-none.'* The Arrivall gives the fullest account: *'On the morow, betymes, The Kynge, undarstandinge that the day approched nere, betwyxt four and five of the cloke, nawithstandynge there was a greate myste and letted the syght of eithar othar, yet he commytted his cawse and qwarell to Allmyghty God, avancyd bannars, dyd blowe up trumpets, and set upon them, firste with shotte, and, than and sone, they joyned and came to hand-strokes, wherein his enemies manly and coragiously receyved them, as well in shotte as in hand-stroks, whan they ioyned;'*

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[58] Arrivall. Copied by Waurin: *'The two hosts were well provided with all guns (tous engiens a pouldre) but the earl had many more than the king and on account of that, all the night wanting to harry (reculler) the king and his host by the fire power of his guns, ordered that they should continue to fire all night. But their shot passed beyond the army without doing any damage (leur trait passoit tout oultre larmee sans les grever). This was because they were closer to the enemy than they would have wished. The king and his men held themselves that night very quietly without noise or firing their guns, so that the enemy could not know the place where they were lodged. That was very advantageous to the king and his army.'*

[59] G. Hodges, 1989, *Ludford Bridge and Mortimer's Cross*.

We can see from Wesel's claim that '*At last the guns on King Edward's side overcame Warwick's ordnance…'* that the term 'shot' in the Arrival is likely to encompass all projectile weapons, including gunpowder artillery not just archers and, in the case of Edward's army, one must also assume the 300-500 Flemish handgunners. The artillerymen presumably had been able to judge their mark before the mist came down, thus avoiding the inaccuracy of the night before. A substantial artillery exchange seems to have opened a number of battles of the Wars, including Empingham in 1470 and Bosworth in 1485. The little detail that is provided in the accounts suggests artillery fire could have a significant influence on the action and that the attacking army might wish to avoid it at close quarters by either, as at Bosworth, make a flanking move or, as here according to Wesel, disabling the enemy guns before advancing. That this was a realistic proposition can be seen from the far better documented battle of Flodden in 1513, where the English artillery managed to silence the Scottish guns in a substantial exchange of fire at the beginning of the battle.[60] Despite this, in the late 15th century as the two sides closed it was the archers who still provided by far the most important 'shot' in English armies and as Wesel says at Barnet '*the others fought so manfully that their shooting was a marvel, so that in truth more than 10,000 arrows still lie there broken.'*

The Arrival shows that the progress of the battle was influenced by the error in positioning which Edward had made when he deployed the night before and the difficulty in correcting this after the mist came down that morning: '*whiche ioynynge of theyr bothe batteyls was nat directly frount to frount, as they so shulde have ioyned ne had be the myste, whiche suffred neythar party to se othar, but for a litle space, and that of lyklyhod cawsed the bataile to be the more crewell and mortall; for, so it was, that the one ende of theyr batayle ovarrechyd th'end of the Kyngs battayle, and so, at that end, they were myche myghtyar than was the Kyngs bataile at the same [end] that ioyned with them, whiche was the west ende, and, therefore, upon that party of the Kyngs battayle, they had a gretar distres upon the Kyngs party, wherefore many flede towards Barnet, and so forthe to London, or evar they lafte; and they fell in the chace of them, and dyd moche harme. But the other parties, and the residewe of neithar bataile, might se that distrese, ne the fleinge, ne the chace, by cawse of [the] great myste that was, whiche wolde nat suffre no man to se but a litle from hym; and so the Kyngs battayle, which saw none of all that, was therby in nothing discoragyd, for, save only a fewe that were nere unto them, no man wiste thereof; also the othar party by the same distres, flyght or chace, were therefore nevar the gretlyar coragyd. And, in lykewise, at the est end, the Kyngs batayle, whan they cam to ioyninge, ovarrechyd theyr batayle, and so distresyd them theyr gretly, and soo drwe nere towards the Kynge, who was abowt the myddest of the battayle, and susteygned all the myght and weight thereof. Netheles upon the same litle distresse at the west end anon ranne to Westmynstar, and to London, and so forthe furthar to othar contries, that the Kynge was distressed, and his fielde loste, but, the lawde be to Almyghty God! it was otharwyse; for the Kynge, trusing verely in God's helpe, owr blessyd ladyes, and Seynt George, toke to hym great haries and corage for to supprese the falcehode of all them that so falcely and so traytorowsly had conspired agaynst hym, wherethrwghe, with the faythefull, wellbelovyd, and myghty assystaunce of his felawshipe, that in great nombar deseveryd nat from his parson, and were as well asswred unto hym, as to them was possyble, he mannly, vigorowsly, and valliantly assayled them, in the mydst and strongest of theyr battaile, where he, with great violence, bett and bare down afore hym all that stode in hys way, and, than, turned to the range, first on that one hand, and than on that othar hand, in lengthe, and so bet and bare them downe, so that nothing myght stande in the syght of hym and the welle asswred felowshipe that attendyd trewly upon hym; so that, blessed be God! he wan the filde there, the perfite victory remayned unto hym, and to his rebells the discomfiture of xxx{m} men, s they nombrid them selves.*'[61]

[60] N. Barr, 2001, *Flodden, 1513*.

[61] While copying this Waurin elaborates and rewords but adds nothing of substance other than the names of certain nobels who were engaged.

Very briefly Commines confirms the King's role on the Yorkist right, though this may simply be because he drew upon the report in the abbreviated copy of the Arrival which was sent to the Burgundian court: *'The king's vanguard was heavily engaged and the earl of Warwick's main force joined battle with the king's, so closely that the king of England personally fought as much, or more, than anyone on either side.'*[62] The problems on the Yorkist left are also reported by Wesel: *'and they fought so manfully that around 3,000 of King Edward's people fled from the rear(guard), yet neither party noticed because of the fog; and they took well 7,000 horses from King Edward's people, and spirited King Henry away, and took him half way between Barnet and St Albans, but King Edward's people chased after them and recaptured Henry, as they say.'* But here again we see significant discrepancies between Wesel's account and others. Not only is the capture of Henry not reported in the Arrival, from Warkworth we hear that: *'Kynge Henry beynge in the forwarde durynge the bataylle, was not hurt…'*, though Hall claims Henry was with Edward in the main battle. If he was indeed with the vanguard or the main battle then it is difficult to understand how he might have been captured as Wesel says, indeed the absence of any other report of such significant an event might suggest that once again Wesel is in error. But rather than indicating unreliability in Wesel's reporting, it actually may support his reliability in reporting what he was told by eyewitnesses. This is because he was writing very soon after the action and in the immediate aftermath of a battle one often sees incomplete or confused eyewitness reports. This is because not all things reported by combatants will have been seen first hand by them, and such confusion is only resolved as accounts are compared and new information arrives over subsequent days.

Vergil adds little of significance, apart from his claim that Warwick committed 'light horse' in the later stages of the action, though how reliable this is must be questioned: *'After it began to grow light, the signal was given on both sides and they joined the fray. First the work was done at a distance with arrows. Then they fought at close range with swords. Edward, relying on his numbers, in which he was far superior, attacked with vigour.... after a lengthy struggle the earl observed his men being hard pressed by the enemy multitude, and came to the relief of those fighting in the forefront with his light horse, forcing the enemy to back off a little. Seeing this, Edward quickly sent new men to support his soldiers….'*

According to Warkworth a major factor in the outcome was a confusion over the livery of the Earl of Oxford's retinue: *'And dyverse tymes the Erle of Warwyke party hade the victory, and supposede that thei hade wonne the felde. But it happenede so, that the Erle of Oxenfordes men hade uppon them ther lordes lyvery, bothe before and behynde, which was a sterre withe stremys, wiche [was] myche lyke the Kynge Edwardes lyvery, the sunne with stremys (4); and the myste was so thycke, that a manne myghte not profytely juge one thynge from anothere; so the Erle of Warwikes menne schott and faughte ayens the Erle of Oxenfordes menne, wetynge and supposynge that thei hade bene Kynge Edwardes menne; and anone the Erle of Oxenforde and his menne cryed "treasoune! treasoune!" and fledde awaye from the felde withe viij. c. menne.'*

As with the comments in the Arrival regarding Edward's prowess in battle, so in other accounts we find the more extensive detail is often given in relation to the action of leading members of the two armies. Thus Commines explains: *'The earl of Warwick was not used to dismounting to fight for after bringing his men into battle he used to mount his horse. If the battle was going well for him he would throw himself into the fray but if it was going badly he would make an early escape. This time however he was constrained by his brother, the marquis of Montague, who was a very courageous knight, to dismount and send away his horses.'* Warkworth also tells us: *'The Lorde Markes Montagu was agreyde and apoyntede with Kynge Edwarde, and put uppone hym Kynge Edwardes lyvery; and a manne of the Erles of Warwyke sawe that, and felle uppone hyme, and kyllede hym. And whenne the*

[62] Commines.

Erle of Warwyke saw his brothere dede, and the Erle of Oxenforde fledde, he lepte one horse-backe, and flede to a wode by the felde of Barnett, where was no waye forthe; and one of Kynge Edwardes menne hade espyede hyme, and one came uppone hym and kylled hym, and dispolede hyme nakede. And so Kynge Edwarde gate that felde. And ther was slayne (5) of the Erle of Warwykes party, the Erle hym self, Markes Montagu, Sere William Tyrelle, knyghte, and many other.'

The death of Warwick is also repporteds in the Arrival which states '*In this battayle was slayne the Erle of Warwyke, somewhat fleinge…'.* In contrast Vergil, yet again unhindered by his lack of meaningful information, presents a long, very different and highly partisan picture of Warwick's demise*: 'Then the fight was renewed with even greater slaughter than before. Now they had fought from morning to midday and the outcome still hung in the balance when Edward, who did not wish the battle to continue much longer, commanded the soldiers he had in reserve to attack. The earl, seeing his enemies' extra men had entered the battle, was not afraid, but was still hopeful for victory and greatly urged, vehemently incited, and earnestly begged his weary men to sustain this final effort spiritedly, crying at the same time that this was the end of the battle. But when his men, exhausted by their protracted labor, refused to respond to his encouragement, with an indomitable will he charged into the midst of his enemies, and dashing ahead carelessly while bent on killing his enemy, he was cut down while fighting together with his brother the marquis, who followed him as if he were already the victor. After the earl's death the rest where turned to flight and captured everywhere.'*

No other source supports Vergil's claim that the batte was fought from morning until midday. Instead, the Arrivall says the action began between 4:00 and 5:00am and lasted just three hours: *'This battayle duryd, fightynge and skirmishinge, some tyme in one place, and some tyme in an othar, ryght dowbtefully, becawse of the myste, by the space of thre howrs, or it was fully achivyd;'.* Three hours represents a long battle, with few others reliably shown to have lasted longer and many having a shorter duration. It should not be assumed that such timing in our sources reflects the writer simply repeating earlier authors such as Vegetius but rather that such timing, as in many other frequently made statements in primary sources for battles, reflects military reality – in this case how long intensive fighting could reasonably be sustained. Comparable timing is also seen in early modern battles where detailed eyewitness evidence is more readily available. Wesel broadly corroborates the duration of the action at Barnet, saying the two sides could see each other at first light at 4:00am, implying the action began a little later, with Edward winning the battle by 8:00am. Given that Waurin draws almost solely on the Arrivall it is not clear why he claims the battle lasted four hours. Warkworth's six hours, beginning at 4:00am and continuing until 10am, may simply be another example of his inaccuracy, though he does include the initial sighting at dawn and may also add the pursuit after the Lancastrian army broke and fled. The action was certainly over sufficiently early for Edward, according to the London Chronicle, to be back in London in the afternoon.[63]

For many battles of the Wars the chronicles exaggerate wildly the numbers killed, as they often do for the numbers engaged. In the case of Barnet such extravagant reports come principally from authors who were distant from the events in either space or time, as with Vergil writing in the early 16th century who claims *'On both sides there were killed about 10,000 men, and so many were taken captive that there was no way in which to count them.* The principal sources, written soon after the battle, give far more realistic estimates. Wesel claims 1500 killed on both sides while Paston reports almost as many, saying that in addition to those of high status there were killed *'other peple off bothe partyes to the nombre off mor then thousand'*. It is possible that these two reports do not fully reflect the true death toll because they were written so soon after the action when such matters were still poorly understood. Thus in the matter of the numbers killed the otherwise potentially less reliable

[63] *Chronicles of London* (III Vitellius A XVI, 1471) p.185.

accounts written somewhat later might be more accurate: Commines claims that 1500 were killed on the King's side alone; the Great Chronicle states 3000 were killed in total; while Warkworth says 4000.[64]

Greater detail is devoted to the high status individuals. A list of the principal dead is appended to a number of reports of the battle, the earliest and most complete probably being the letter of Jean de Molesmes, secretary to Charles the Bold, Duke of Burgundy.[65] Most of the battle accounts themselves focus on just a few individuals. Thus Wesel reports: *'and Warwick and the Marquess Montagu, his brother, were both killed along with many knights and gentlemen; and on King Edward's side was killed the Lord Cromwell, and he was one of [the earl of] Essex's sons, item the Lord Saye, item the Lord Berners's son and heir, and many others knights and gentlemen, so that on both sides about 1,500 men were left dead…'* In the Arrival: *'In this battayle was slayne the Erle of Warwyke, somewhat fleinge, which was taken and reputed as chefe of the felde, in that he was callyd amongs them lyvetenaunt of England, so constitute by the pretensed aucthoritye of Kynge Henry. There was also slayne the Marques Montagwe, in playne battayle, and many othar knyghts, squiers, noble men, and othar. The Duke of Excestar was smytten downe, and sore woundyd, and lafte for dead; but he was not well knowne, and so lafte by a lytle out of the fielde, and so, aftar, he escaped (35). The Erle of Oxenforde fled, and toke into the contire, and, in his flyenge, fell in company with certayne northern men, that also fled from the same filde, and so went he, in theyr company, northwards, and, aftar that, into Scotland……And, albe hit the vyctorye remayned to the Kynge, yet was it not without grete danger and hurt, for ther were slayne in the filde the Lorde Cromwell, the Lord Say, the Lord Mountjoies, sonne and heyre, and many othar good Knyghts, and squiers, gode yoemen, and many othar meneiall servaunts of the Kyngs. And it is to wete, that it cowthe not be judged that the Kyngs hoste passyd the nombar ixm. men; but, suche a great and gracious Lorde is Almyghty God, that it plesythe hym gyvythe the victory as well to fewe as to many, wherefore, to hym be the lawde and the thanks.'*

Crowland reports: *'On the side of those who were of king Henry's party, there fell those two most famous nobles, the brothers, Richard earl of Warwick, and John marquis of Montague. Among those on that side who contrived to escape alive from the field, were Henry Holland, duke of Exeter, and John Vere, earl of Oxford, of whom, the one took sanctuary at Westminster, while the other betook himself to the sea, once more to seek his fortune. On the other hand, king Edward lost two nobles, kinsmen of his, Humphrey Bourchier, lord Cromwell, an another Humphrey, of the same surname, the eldest son and heir of the lord Berners; besides many others who fell in the battle. However, he gained a wonderful, glorious, and un-hoped for victory.'*

From Warkworth: *'The Duke of Excetre faugth manly ther that day, and was gretely despolede and woundede, and lefte nakede for dede in the felde, and so lay ther from vij. of the clokke tille iiij. after none; whiche was take up and brought to a house by a manne of his owne; and a leche brought to hym, and so afterwarde brought in to sancuarij at Westmynster. And one Kynge Edwardes party was slayne the Lorde Cromwelle, sonne and heyre to the Erle of Essex, Lord Barnes sonne and heyre (6), Lord Say (7), and dyverse other, to the nombre (of bothe partys) iiij. M. menne. And after that the felde was don, Kynge Edwarde commaundyd bothe the Erle of Warwikes body and the Lorde Markes body to be putt in a carte, and returned hym with alle his oste ageyne to Londone; and there commaundede the seide ij. bodyes to be layede in the chyrche of Paulis, one the pavement, that every*

[64] Paston Letters v.3,p.4 (18/4/1471 no.668)
[65] Livia Visser-Fuchs, *Ricardian Riddle: the Casualty List of the Battle of Barnet,* referencing Paris, Bibliothèque Nationale Ms. français 3887, f 104 b.

manne myghte see them; and so they lay iij. or iiij. days, and afterwarde where buryede. And Kynge Herry beynge in the forwarde durynge the bataylle, was not hurt; but he was broughte agayne to the Toure of Londone, ther to be kept.'

There is further work that could be done to draw together a more comprehensive list of those of status who fell at Barnet, not least with information on who was buried where. While much later accounts may not often be relied upon for the events of a battle, this is one respect in which they can provide important information, deriving from the physical evidence of memorial inscriptions, local records or even perhaps from local traditions. Thus Stow provides a list of those buried at Greyfriars in London, including Thomas a Par and John Wiltwater, both esquires to the Duke of Gloucester, who were 'slain at Barnet' while at Austin Friars he gives 'the Lorde Barons slain at Barnet Field' as well as Aubry de Vere, son and heir of the Earl of Oxford; Sir Thomas Tudnam knight; William Bourser and Sir Thomas de la Lande Knight.[66] Local traditions may be the source of his comment in 1580 that the wounded Earl Exeter was carried to house called 'Ruthland'. In 1479 William Rutlond was the tenant of Pinchbank, a house immediately north east of Kicks End.[67]

[66] J. Stow *Survey of London* 1603 (ed) C. L. Kingsford 1908, www.british-history.ac.uk/london.
[67] Stow; B. Warren, 2009, *Reappraisal of the Battle of Barnet, 1471*.For Ruthland as tenant see *Calendar of Close Rolls*, Edward IV, m.12d f55.

3. The historic terrain

Our analysis of the primary accounts of the battle, together with the assessment of early traditions and historic map evidence purporting to locate the battle, enabled a search area to be defined within which the battlefield might be expected to lie. This zone extends from the north of the edge of the town of Barnet (though there is uncertainty as to exactly that lay in 1471) for approximately 2km centred on the line of what was then the main road from London to St Albans and the Midlands. To help identify exactly where within this zone the battle was fought we have reconstructed, as far as practicable within the project resources and surviving documents, the historic landscape as it was in 1471. As many elements of the landscape cannot be securely identified at such an early date we have indicated the earliest date at which they are recorded, distinguishing those which we can prove only came into existence since the battle. A lower level of detail was also required for the wider historic landscape, as this context allows one to better understand the approach of the armies to the field and hence where they are most likely to have deployed; to see what restrictions existed on wider movement of the armies or indeed whether any other tactical opportunities nearby were ignored and if so why; and to see how the landscape might have influenced where routed troops on each side fled. Therefore some work was undertaken on land up to the northern boundary of South Mimms parish (5.5km from Barnet) and with some work on the major road network beyond this, but with detailed mapping concentrating within the main search (figure 19).

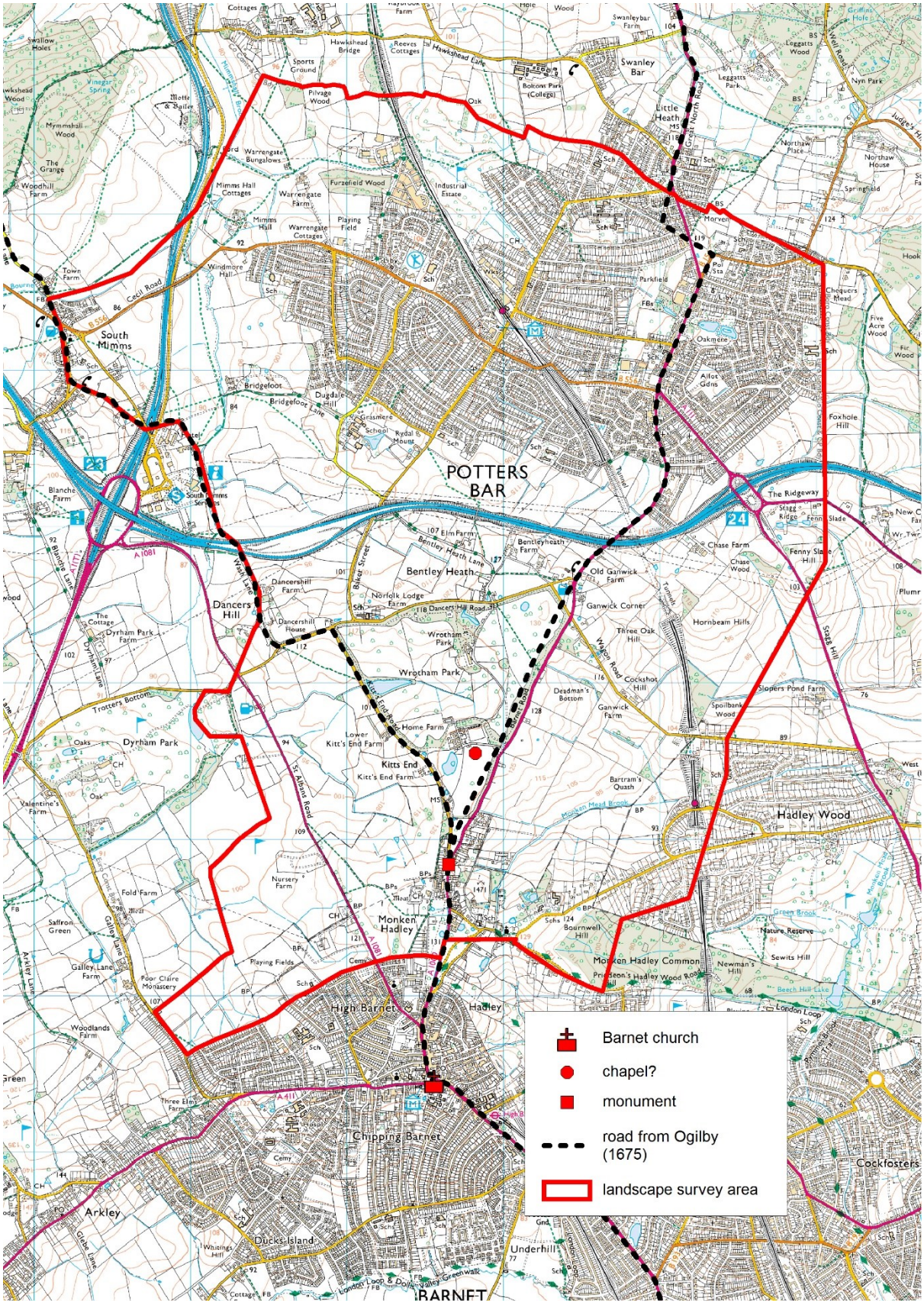

Figure 19: The search areas for landscape reconstruction shown on an OS Explorer map base. © Crown copyright and database rights 2020 Ordnance Survey 100025252

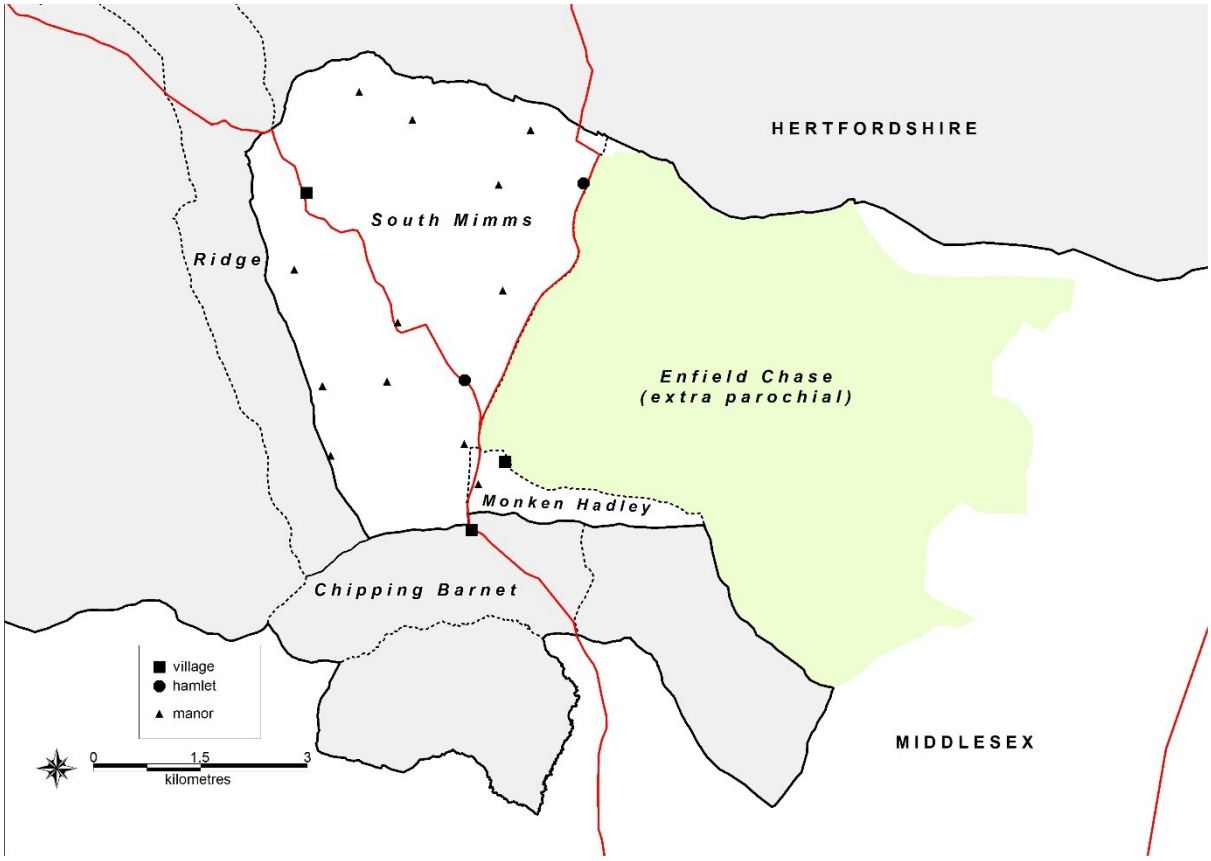

Figure 20: Early administrative organization of counties and parishes (based on Kain and Oliver 2001 edited to OS first edition 6 inch mapping) also showing settlements, and with the major roads (based on Ogilby 1675).

Extensive documentary research had already been undertaken on the character of this landscape in the medieval and early modern, principally by Helen Baker in the 1970s whose work focused on Wrotham Park and Kicks End. This was complemented later by Brian Warren in his reappraisal of the battle and study of the battle chapel, who covered a wider area including land to the south of Kicks End and in Enfield Chase.[68] We have drawn extensively upon their work and upon that of a number of antiquarian and other secondary works.[69] Despite such extensive research by various authors there are important aspects of the historic terrain which are still poorly understood. In part this is because the study area straddled two counties (Middlesex and Hertfordshire), and comprised the periphery of three parishes (Monken Hadley, South Mimms and Chipping Barnet) plus the extra-parochial land of Enfield Chase. Our mapping indicates the extent of these parishes prior to the enclosure of the Chase in 1776, as well as the land added to South Mimms and Monken Hadley parishes at that time in lieu of rights in the Chase. The main problem however is that this was principally a landscape of ancient enclosure and woodland, especially in South Mimms which saw extensive piecemeal enclosure in the later medieval and early modern periods, compounding the problems posed by its complicated manorial and estate structure. It saw progressive change over many centuries creating a patchwork of enclosed agricultural land, but retaining unenclosed commons and greens, a large hunting preserve, and parkland, while the once more extensive woodland appears to have been progressively cleared. This landscape also had a mainly dispersed settlement pattern served by a confusing network of major and minor roads and lanes. In contrast to late medieval battlefield terrain in regions of nucleated

[68] Baker H.M. 1970 'Wrotham Park and Kitts End' *Barnet and District Local History Society Bulletin*, No. 16.; Warren B. 2009 *Reappraisal of the Battle of Barnet 1471*.
[69] Most notably the Victoria County History volumes for Middlesex and Hertfordshire and F.C. Cass. 1877, *The Parish of South Mimms*; F.C. Cass. 1880, *The Parish of Monken Hadley.*

villages and extensive open fields studied in projects such as Bosworth and Towton, landscapes like that at Barnet with extensive early enclosure, dispersed settlement, and small and often intermixed estates, are very difficult to accurately reconstruct. This is true even when there is extensive documentary evidence, especially as we are seeking to define its exact character on a particular day in 1471.

Given so much research had already been published on this landscape one might ask why there was need for our reworking of data from primary historic maps and review of the secondary studies of written sources. It is because previously only Warren sought to bring together the various strands of evidence for the battlefield and he only provides sketch mapping, while there are various matters of detail and some potentially significant parts of the study area which he did not consider. We have therefore produced new, more accurate and fully referenced digital mapping of relevant data from the historic maps. In this we have followed a well-established methodology for map regression previously applied to other battlefields, working to a first edition six inch Ordnance Survey map base registered in GIS to the modern Ordnance Survey Mastermap.[70] This has been complemented by a review of written evidence from medieval and early modern sources, including some original research but principally drawing upon the information presented by Baker and Warren, while also drawing upon the Victoria County History and other local historical works. In addition we have undertaken a search for any relevant existing archaeological data which might assist in the task of reconstruction. This has included the historic environment records for Greater London and Hertfordshire, together with a review of relevant vertical and oblique aerial photography in the Historic England Archive at Swindon, and of the 2m lidar data available from the Environment Agency. Unfortunately none of the latter data sets, nor indeed the field inspection, geophysical surveys, trial excavation and test pitting undertaken in the project have revealed significant physical evidence which contribute to the understanding of the historic landscape, other than identifying several small fragments of ridge and furrow. In this there is just one important exception: accurately defining the layout of the moat at Kicks End, which may be the site of the battle chapel, and establishing in the adjacent land the exact course of the Gannick bank, which may have been a tactically significant feature affecting where and how the battle was fought.

In our reconstruction we have paid particular attention to identifying evidence which might enable accurate placing of the few topographical details recorded in the primary accounts of the battle and in later reports. These include the course of the St Albans and other major roads; a marsh; the battle chapel; the northern extent of the town of Barnet; the extent of enclosed versus open land, including the location and extent of greens and other commons; and the location of woodland. In addition we have briefly examined the course of the St Albans road from London to Barnet and the location of Hornsey Park, using several 16th and 17th century map sources, in order to better interpret the approach of the Yorkist army and locate the possible skirmishing prior to their arrival on the battlefield. We have also made a cursory examination of the St Albans road north from Dancers Hill, principally from Ogilby's mapping of 1675, in order to consider the Lancastrian approach to the battlefield and their eventual rout, including the local tradition regarding action in the parish of Ridge.[71]

Yet more could be done to unravel the complex evolution of the historic landscape in the study area, most notably through further research in the Hatfield House archive. The principal but by no means the only target of such work should be the area west of the St Albans road, extending from Old Fold

[70] Partida et al 2013; Foard & Curry 2013
[71] Ogilby, John. 1675, *Britannia.*

manor north to Dancers Hill, an area whose early character is as yet poorly understood but might be central to understanding where and how the battle was fought.[72]

As with the documentary research so with the archaeological investigation of the historic landscape there is potential for further carefully targeted investigation. This could include further sampling by test pitting and trenching to establish the chronology of the settlement pattern, whether loosely nucleated like Kicks End, or more widely dispersed as along the lane from Dancers Hill to Bentley Heath, to see whether and to what degree such buildings and their enclosures were present in 1471 and thus how they may have influenced tactical decisions. But this is time consuming work and could only be effectively targeted once the battlefield has been securely located.

The pattern of relief and drainage, which represent the bare bones of the landscape, can be a major factor determining tactical potential. With very limited but significant exceptions, especially the drainage of areas of marsh and the realignment of minor watercourses, the broad pattern of relief and drainage will remain today much as it was in 1471. Only on the finest level of detail on the field itself has earthmoving made significant changes to the pattern of relief, through activities such as landscaping of golf courses, embankments and cuttings for road and rail, or small scale quarrying for minerals. For the present purpose we have used the Ordnance Survey 5m contour data to provide the broad view of the physical topography. Analysis in finer detail could be achieved using the 2m lidar data but has not been undertaken here in the absence of any archaeological evidence clearly locating the battlefield.

[72] The archive at Hatfield was not searched during the project as resources did not allow, and the various county and parish histories provided ample evidence for much of the landscape. However, it is clear from secondary works that there is a vast archive of manorial records including early court rolls and terriers that could be further investigated to establish the extent and character of South Mimms manorial estate, particularly with regard to the land to the west of Kicks End and the St Albans road.

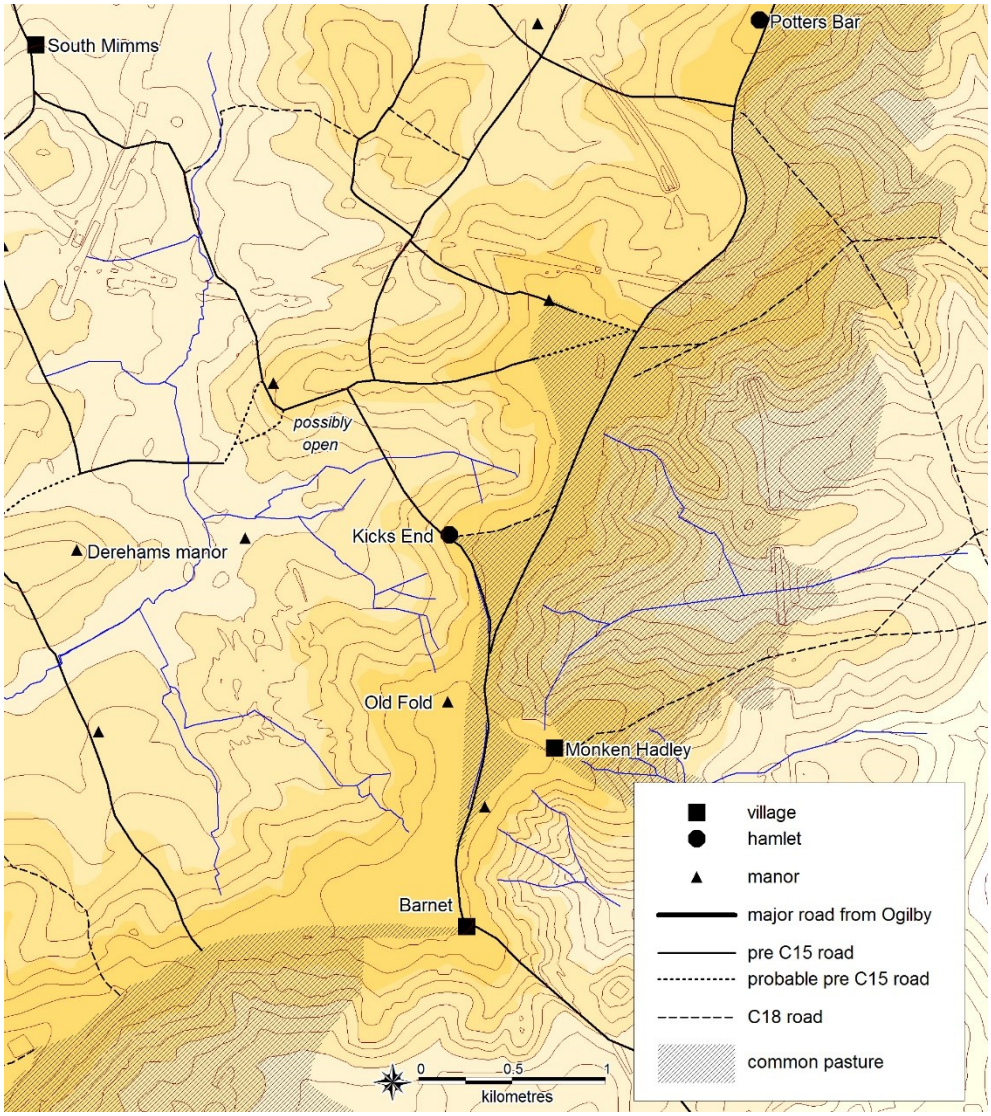

Figure 21: Historic landscape north of Barnet, set against a base of relief and drainage from OS Mastermap with drainage enhanced using data from the first edition six inch OS mapping. © *Crown copyright and database rights 2020 Ordnance Survey 100025252*

However it is often the features superimposed upon the pattern of relief, as determined by man's use of the land, which provided the most tactically significant elements of the landscape. At Barnet this is the route of the major roads and their relationship to land enclosed by hedges or fences versus unenclosed land and woodland plus, though not mentioned in any battle account, the pattern of settlement.

Two medieval roads of national significance cross the search area, one from London to St Albans, which continued to Coventry and on to Wales and the north west, the other leading to Hatfield and on to Oakham and the north. As we have seen, it was along the first of these that the armies approached the battlefield. Ogilby in 1675 is the first to depict its exact course, which we have accurately mapped across the search area with reference principally to the 1745 map of Wyllyotts manor, showing it followed almost exactly the modern road.[73] While

[73] LMA: CLC/L/BF/H/002.

in 1745 this was still an important route, described as 'the road from London to St Albans', today it is simply a series of lanes of only local significance. Its unusual zig-zag route through South Mimms parish may simply indicate a major medieval road making its way through a more ancient landscape of local roads, discussed briefly below, rather than indicating a route which has subsequently diverged from a straighter medieval course. The far less detailed map of Hertfordshire by Norden in 1598 depicts a similar alignment to Ogilby, running via Barnet, Kicks End, Dancers Hill and South Mimms, while the documentary source from 1479 indicates it on or close to Ogilby's line between Kicks End and Dancers Hill and thus almost certainly it was there in 1471.[74] It was already the major road from London to the Midlands in the late 14th century, shown on the Gough map running through the first two waypoints of Barnet and St Albans, though with no detail of the exact course.[75] It was probably also the same road from London to the North shown on Matthew Paris's map of Britain c.1250, for although he only records St Albans as his first waypoint there is a deed of c1220 which refers to the St Albans road running through the fields of South Mimms.[76]

[74] John Norden, 1598, *Speculum Britanniae, Description of Middlesex and Hertfordshire*; Cal. Close Rolls , Ed IV m.12d.f.55 http://www.british-history.ac.uk.libaccess.hud.ac.uk/cal-close-rolls/edw4/1476-85/pp157-167.
[75] Bodleian Library, MS. Gough Gen. Top. 16, http://www.goughmap.org/map/. Usually dated c. 1360 - c. 1370 but it almost certainly containing early 15th century amendments, but Smallwood 2010 has suggested on palaeographic grounds that the map was actually made in the early 1400s.
[76] British Library Cotton MS Claudius D.vi, f.12v.; N Kerling, 1973, *Cartulary of St Bartholomew's Hospital*, 1222.

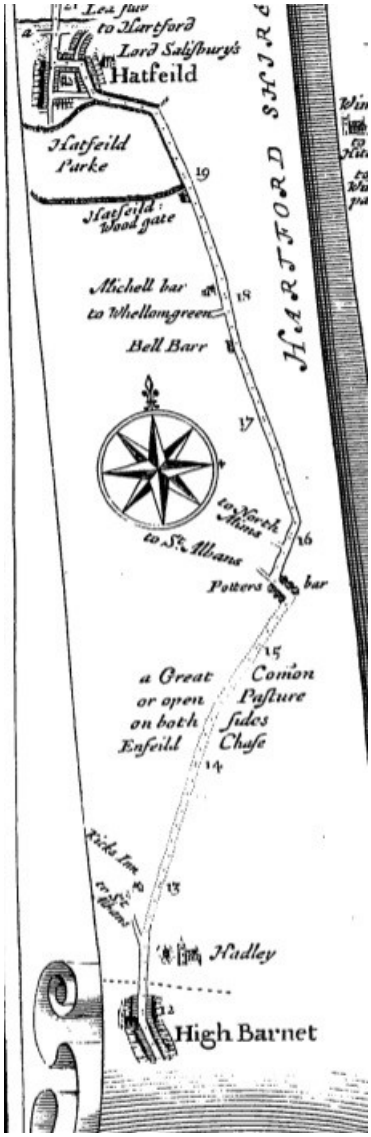

Figure 22: Extract of Ogilby's Itinerary 1675 plate 45 showing the route between Barnet and Hatfield

The Hatfield road is also first recorded in detail by Ogilby, who shows it diverging from the St Albans road close to where the High Stone now stands and running through the western periphery of Enfield Chase. By this date it had moved from its late medieval course just outside the Chase boundary, encroaching eastward into the Chase after the Gannick bank became broken down.[77] It is also shown by Norden on his Hertfordshire map in 1598 on or close to the same route. It seems likely that the western edge of the Chase was originally defined in relation to the road, explaining why Bentley and Kicks End commons remained outside the Chase and, if so, this road presumably already existed as a major route well before 1471.

[77] F.C. Cass, *The Parish of South Mimms*, Westminster, 1877, p.2.

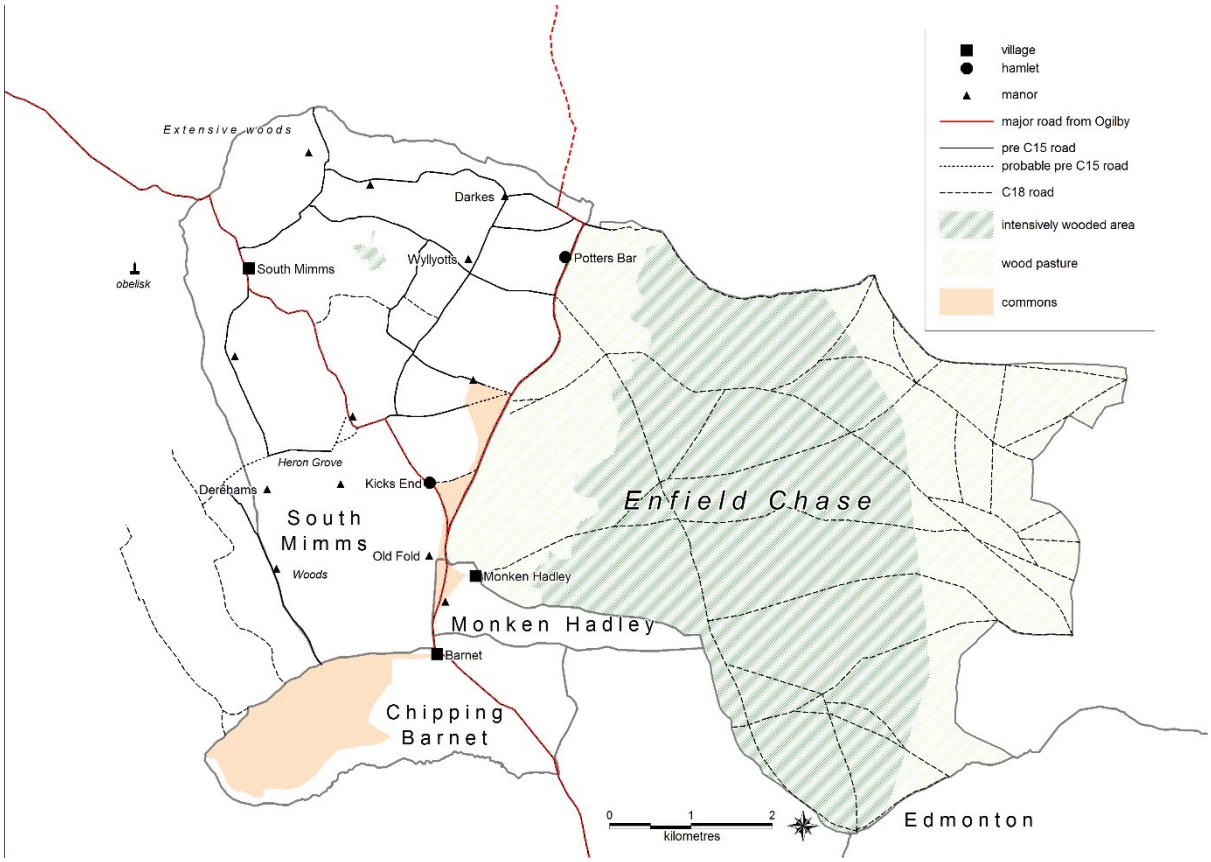

Figure 23: Historic road network and land use. Further research might allow the mapping of the extent of the medieval woods to the north of South Mimms, and the smaller woods of Heron Grove and the old wood to the south which are here identified simply by name.

The complex web of often winding local roads which linked the scattered farms and settlements had two principal axes, one leading eastward to Enfield Chase, with at least two roads opening out into funnels – the commons of Bentley Heath and Kicks End – to issue into the pastures of the Chase; the other axis leading south to Barnet and Barnet Common. The 1745 map of Wyllyotts gives a remarkable insight into the character of the road network as it maps them with all their intricacies of varying width, encroachments, and ponds, even indicating enclosed sections with their gates.[78] Some of these lanes were extremely wide – 30m or more – and were presumably intended to allow commoners in South Mimms, Ridge and elsewhere who held rights of common to drive stock to and from the pastures. The St Albans road also run north into Hadley Common which forms a funnel heading towards the Chase, while Wood Lane which diverges westward from the main road at Barnet church also widens as a drove into Barnet Common. This again is suggestive of a more ancient structure to the landscape through which the major road later runs.

We cannot claim to have recovered all the roads as they were in 1471. Some appear in late medieval records but others, probably also existing then, are so far identified only in the 18th century. There was also the loss of some roads. For example the small road or lane through Kicks End common, shown by Rocque in 1754 linking the two major roads, was closed in

[78] LMA: CLC/L/BF/H/002.

1786 as part of the emparking process.[79] Other minor roads may have been lost at an earlier date, perhaps most likely where land had been enclosed and emparked in the Old Fold and Derehams estates, an area which we have already noted requires more detailed documentary study. That the boundaries of adjacent enclosures fossilize the wide form of several of the lanes would suggest the adjacent land was subject to early enclosure, as enclosure in the early modern period typically saw such droves narrowed.

Hall in his study of the open fields of England notes that significant ancient enclosure had taken place in Middlesex. This was a piecemeal process over a very long period for although by the 14th century there was extensive enclosed land at Barnet, in nearby Edmonton there is evidence of complex multiple open (unenclosed) fields with intermixed strips.[80] This pattern of early enclosure, probably replacing a landscape of complex multiple open fields, seems also to have been the character of our search area, judging from late 15th century written sources. These contradict the claim by the VCH that in South Mimms 'despite the growth of villages and hamlets much of the parish was still open in the late 17th and early 18th centuries.'[81] Roughly two thirds of the land in the area of modern Wrotham park had already been enclosed by the late medieval, with many of these enclosures named in 1479, suggesting the presence of extensive enclosure here at the time of the battle. What is unclear is the exact extent and position of the enclosed land parcels named in the fifteenth century and whether they comprised single or multiple closes, as none are described with acreage until the survey of 1712. The emparking during the 18th century, prior to any detailed surviving map, makes the reconstruction of this area extremely difficult despite the extensive written evidence.

To the south-west of these early enclosures lay Old Fold Manor, which was a discrete and fully enclosed estate when first mapped in 1726, with the moated manor house itself lying at its eastern edge adjacent to Hadley Green.[82] Old Fold already existed by 1271 when it comprised 132.5 acres but it is not known where the lands lay, although in 1479 it certainly included some land that lay outside the accurately mapped extent of some 426 acres in 1726. It is uncertain if these lands were already enclosed by 1471. It is likely that enclosure here and elsewhere in the study area was piecemeal and by agreement. It is of course possible that Old Fold demesne land was held and farmed separately from the remaining land within South Mimms even before enclosure, in which case it may have been ring-fenced at an early date. Indeed the presence of numerous manors and small estates in South Mimms suggest, at least by the 16th century, a widespread pattern of farming in severalty except for the tenants of the main manors. It is not known whether more sources exist than Warren examined which might resolve this question. It is another issue for future documentary research.[83]

The early character of the landscape immediately to the north of Old Fold and west of the St Albans road is almost completely unknown. No mapping has been identified for this area prior to the tithe map of 1842, while the field names from the accompanying apportionment,

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[79] Helen Baker, 1970, 'Wrotham Park and Kitts End', *Barnet and District Local History Society Bulletin,* 16, (1970)
[80] Hall 2014, *The Open Fields of England* , see pp.289 for Middlesex and p.272 for Edmonton in the 16th century.
[81] VCH South Mimms, p.271-282.
[82] LMA: Acc 351/1139.
[83] LMA: Acc 351/1139.

such as 'ten acres', five acres' or simply 'meadow', are particularly unenlightening.[84] The Victoria County History (VCH), quoting deeds at Hatfield, states that '… most of the area south of Dancers Hill Road was also originally common land, with two large gravel pits which later became fishponds.'[85] Whether they mean it was common pasture or common field is unclear and so here is another important target for further documentary research in the Hatfield archive and other early sources. Baker's study of Dancers Hill includes some of this land as two separate copyholds (presumably enclosed) each of 16 acres.[86] However, this small area can only be securely identified in the seventeenth century, and possibly the late sixteenth century, lying near Knightsland some 350 metres west of Wrotham Park. To the west of Knightsland lay the manor of Derehams or Durhams in 1340, which then comprised a house and 324 acres in South Mimms, while in 1506 it extended into Hertfordshire and included a house and 350 acres. It is uncertain where the land lay, if in a consolidated block or scattered throughout the parish, or whether open or enclosed in 1471. In 1485 Sir Thomas Frowke's will refers to 'his lands and tenements called Derhams in the parish of South Mimms … and the parish of Ridge [Hertfordshire]'.[87] By 1754 it is shown as a country house within a landscape park, although the nearby moated site may be the original site of the house as it was owned by the same family as Old Fold and descended with it until 1473. This may have allowed for consolidation of any earlier intermixed lands of the two manors and then their enclosure.

To the north of Knightsland, on Dancers Hill, lay the Mandeville estate, though it is not clear if it was ever an independent manorial estate.[88] Its land was concentrated around Dancers Hill and included land to the north of Margerey Bottom between Knightsland and Kicks End road.

While we are unclear whether substantial open ground existed in this area to the west of the St Albans road, an extensive open area is well documented further east and south. This has a plan form, of funnel shaped droves entering both Enfield Chase and Barnet Common which both lay below the ridge to east and south respectively (figure 23). This distinctive pattern might hint that extensive medieval commons did not exist northwest of the ridge. The open land within the former hunting preserve of Enfield Chase comprised common and wood pasture in the western and eastern sectors but with extensive areas of woodland in the central sector.

The zone to the east of the St Albans road, especially the enclosed elements, can be mapped principally with reference to the documentary research by Baker and Warren. In contrast, the unenclosed land can be recovered using numerous maps because, apart from small scale encroachment, it was not enclosed until the later 18th century. These sources include various maps of Enfield Chase, including the enclosure map of 1776 and the later map of the enclosure of the South Mimms parish allotment from the Chase in 1781. The latter shows in detail the commons of Kicks End and Bentley Heath and accurately plots the Gannick Bank.[89] Bentley and Kicks End heaths, each opened outward from a road into a form of

[84] NA: IR 30/21/41; IR 29/21/41..
[85] http://www.british-history.ac.uk/vch/middx/vol5/pp271-282
[86] H.M. Baker, 1973 'Dancers Hill and the Manor of Mandeville'. Barnet and District Local History Society No.17
[87] F.C. Cass, (1877) p.30.
[88] H.M. Baker, 1973 'Dancers Hill and the Manor of Mandeville'. Barnet and District Local History Society No.17.
[89] See Partida 2020, *The Barnet Landscape*, (report in the project digital archive at ADS) for the full list of maps and documents.

funnel, abutting eastward onto the bank and pale of Enfield Chase. To the south, along the line of the St Albans road, Hadley Green may similarly have opened out north eastward into the Chase, but if so then a row of tenements in Monken Hadley village had at some point encroached across the mouth of this funnel. Bentley Heath and Kicks End Heath are named on a close roll dated 1479.[90] While the extent of Bentley is marked on various maps and probably saw very limited earlier encroachment, its north western part appears in 1479 to have been known as Alenstrete heath from which Alenstrete ran north westward through the enclosed landscape. Kicks End Heath is more problematic. It may have incorporated what at enclosure was known as Kicks End Common, but there was clearly a more extensive area of heathland than the common as recorded at enclosure because in 1479 there is also reference to a brook on the heath in this area. This seems to indicate heathland extending north from Kicks End towards or into the head of the Margery Mead valley. If this is so then it poses a major problem for understanding the terrain of the battlefield as discussed below.

A far more extensive area of open ground lay within Enfield Chase to the east, but separated from those two commons by a pale, known in this sector as the Gannick Bank. This western boundary of the Chase requires further discussion because it may have been an important tactical consideration during the battle, as it will have been a substantial deer proof boundary intended to retain deer within the hunting preserve.[91] Such boundaries typically comprised a ditch with a large outer bank topped by a pale - usually a high wooden fence though sometimes a live hedge or even a dead hedge. The earliest known survey of the Chase, in 1572, describes the course of the boundary, here running from Hadley windmill across 'the Highway unto Summer Pole And from thence north by the hedge leading to Gannorow [Gannick] Corner'.[92] The 1675 survey adds more detail: 'by ye Highway to Summer Pool, als Sugar Well, from thence along a great bank to Gannick Corner.'[93] Sugar Well is identified on the Gunten & Rolfe map of 1658, on the road just to the north of Old Fold Manor.[94] While in 1675 the bank is still described as 'great' the 1685 survey states 'all the fence to the said Chace, from Hadley Windmill to Potters Bar, all the way by the outside of the said Chace, being nine hundred and twenty poles, is quite down, and hath been so many years, and, by reason of the Bank being down, South Mimms make an inroad into the said Chace, and desert the old road there, and make a road in the said Chace, to the great damage of His Majesty's deer, and to the loss of His Majesty's tenants of many hundreds of acres of common'.[95] In 1693 it is claimed that at least part of the pale 'against Bentley Heath has been pulled down at the Battle between Edward IV and Henry IV, so that the armies might better join battle'.[96] It should be noted that Enfield Chase suffered a great deal of neglect and abuse during the Interregnum and much of the damage may have been caused during this period. It may be significant in this context that, as noted above, the 1572 perambulation indicates a hedge still existing along the bank.[97] The variable use of the words hedge and fence for the Gannick

[90] Cal. Close Rolls, Edward IV. M.12D. f.55.
[91] The history of Enfield Chase is given in 'A History of Enfield' https://ia601601.us.archive.org/12/items/historyofenfield00forduoft/historyofenfield00forduoft.pdf and in 'The Environs of London: Volume 2, County of Middlesex. Enfield' https://www.british-history.ac.uk/london-environs/vol2/pp278-334.
[92] Warren, 'Reappraisal of the Battle of Barnet 1471'. p.20.
[93] A Book of Surveys of Enfield https://archive.org/stream/historyofenfield00forduoft/historyofenfield00forduoft_djvu.txt pp.34-37.
[94] NA: MPC 1/50/1.
[95] F.C. Cass, *The Parish of South Mimms*, (Westminster, 1877) p.2.
[96] Warren, 'Reappraisal of the Battle of Barnet 1471'. p.26.
[97] A Book of Surveys of Enfield

boundary may simply reflect the degree to which the term fence was interchangeable with that of hedge.[98] The poorly referenced sources for the claim linking destruction of the boundary against Bentley Heath with the battle requires further review of the primary sources to determine if any much closer in date to the battle might support the claim and thus provide valuable new evidence for the location of the action.[99] The line of the Gannick Bank is noticeably absent from the seventeenth century maps but is shown on several later maps, the most accurate being the 1781 enclosure map of South Mimms's allotment from Enfield Chase.[100] It is clear from these maps and other documentary sources that the bank had crossed South Mimms Common (as named from the enclosure map) to the west of the main road as it then ran. Also apparent are the encroachments made onto the open land beside the bank.[101] While in 1675 Ogilby shows the main road running within the Chase, in 1471 it will have run immediately outside it.

The land to the east of the Gannick Bank is shown in 1701 as almost completely devoid of coppices or other stands of trees.[102] This is the only map to depict woods and wood pasture in the Chase and, while it shows a design for a new geometric pattern of rides which may never have been implemented, the rest of the detail seems to represent the landscape as it already existed. The 1500m wide area between the Gannick Bank and the edge of these coppices is called 'South Mimms Common' on the 1776 enclosure map. This was also the allotment to be provided to the commoners of South Mimms on the 1658 map by Gunten and Rolfe, which shows the intended but unimplemented enclosure of the Chase during the Commonwealth. On the eastern side of the Chase, where it abuts Enfield, one sees a similar association between a non-wooded zone in 1701 and the intended allotments for the commoners of Enfield in 1658, although further to the south of the allotment for Edmonton commoners in 1658 only half of the area appears was unwooded in 1701. It was common practice for parishes that held common rights within forest and chases to have specific areas designated to their use. Whether the areas to be allocated to the commoners of the three parishes were already their commons, the two sets of evidence do appear to support the fact that these peripheral areas of the Chase were already devoid of woodland by the mid 17th century. This distribution of coppices divided by rides and lawns versus extensive wood pasture to east and west, as seen in 1701, may reflect the character of the late medieval landscape though the open ground may have contained scattered trees as is typical of wood pasture.

In contrast to the central area of the Chase, there seems to have been very little woodland in the south eastern sector of South Mimms parish. Deeds of sale for land around Kicks End from the early eighteenth century give detailed descriptions of the lands in question but do not include any reference to woodland. The Treswell map of 1594 shows several small woods to the north of the search area, around the manors of Wyllyotts and Darkes, although these had gone by the mid-eighteenth century.[103] Other small areas of woodland had been lost in earlier centuries for deeds record an old wood within the Old Fold estate and another on the Dyrhams estate. Thus although it is only at the north-western periphery of South Mimms

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https://archive.org/stream/historyofenfield00forduoft/historyofenfield00forduoft_djvu.txt pp.34-37

[98] OED.

[99] Warren 2009, p.26.

[100] Hatfield: CPM Supp47.

[101] Partida 2020, *The Barnet Landscape*, (report in the project digital archive at ADS), fig.2.

[102] NA: MPC 1/50/2.

[103] LMA: CLC/L/BF/H/001; Roque Map of Middlesex 1754.

parish that we have evidence of extensive woodland like that within the Chase, it is possible that small areas of woodland did exist within our search area in the late medieval which were subsequently cleared.

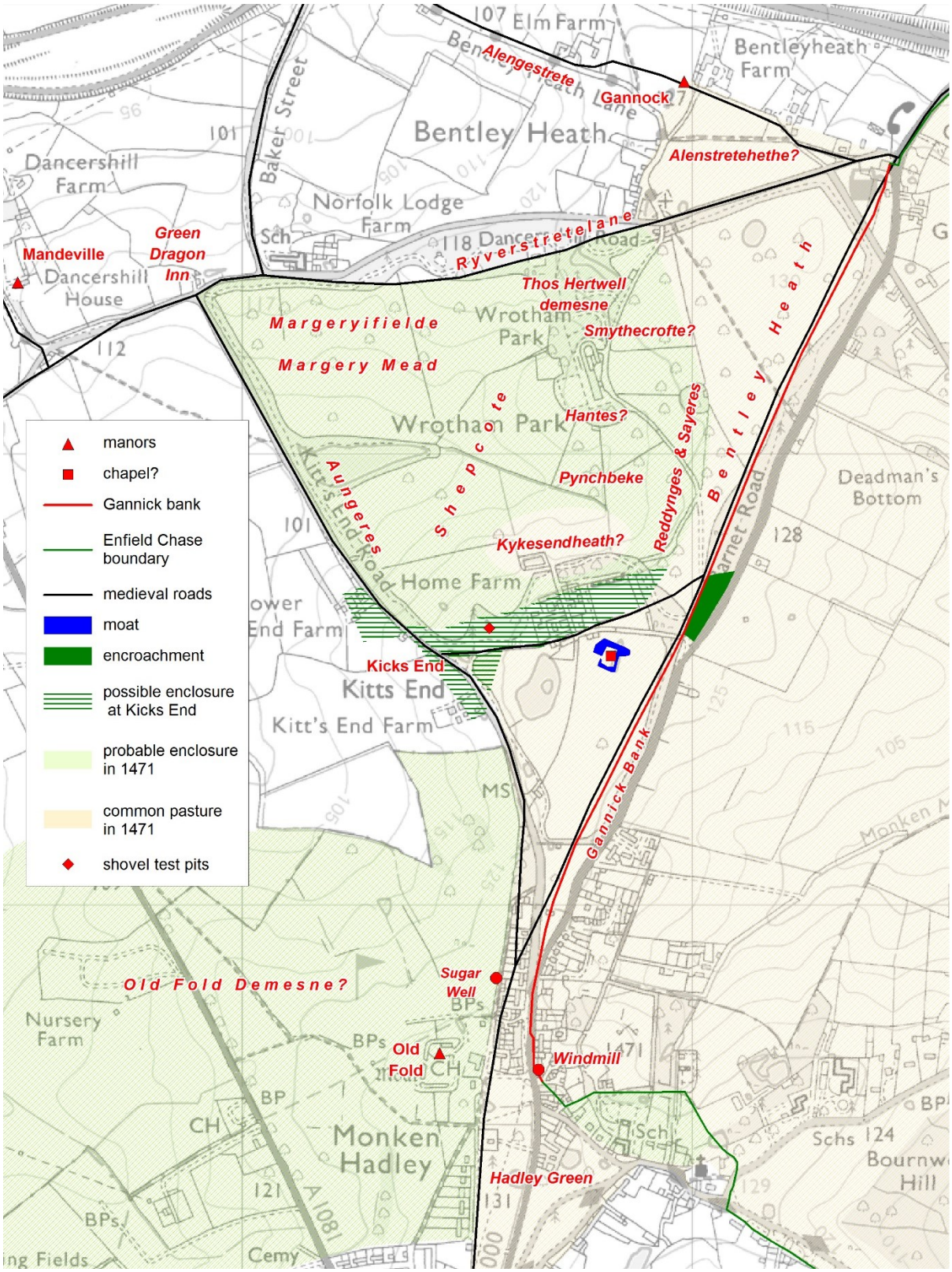

Figure 24: Principal elements of the historic landscape on an OS Explorer map base. © Crown copyright and database rights 2020 Ordnance Survey 100025252

As is often the case with complex early enclosed landscapes, here it is accompanied by a highly dispersed settlement pattern with various manors and small estates but just a handful

of nucleated settlements. The only extensive area lacking almost any settlement was the Chase. The nucleated settlements comprised the medieval small town of Barnet, the village of South Mimms, the smaller and partly green-edge village of Monken Hadley, plus the hamlet of Kicks End. Elsewhere there was a scatter of farms and other houses dispersed to a greater or lesser degree, with loose groupings of houses around Bentley Heath, at Gannick Corner, and at Dancers Hill. While some of the houses are documented in the late medieval, for most it is difficult to determine when they were first occupied and indeed where medieval houses may have been which had been lost at an early date. Thus although the distribution of settlement in 1471 could have had a major influence on where the battle was fought, with such a dispersed settlement pattern it is almost impossible from the documentary record to determine everywhere that buildings stood at the time.

Even the nucleated settlements pose problems. In the 18th century Kicks End lay principally along a minor east west road linking the Hatfield and St Albans roads, though it is impossible to accurately map as it is only on Rocques small scale map that it is recorded prior to repeated clearance and redesign, especially with the expansion of Wrotham Park in the late 18th and 19th centuries. While we know Kicks End existed by 1479 we do not know its extent at the time. It may have lain solely along the St Albans road on its west side, where in 1675 Ogilby shows just a small group of houses because, except for Pinchbank, there are none mentioned in the late medieval documents lying between the ancient enclosures on the north and Kick's End common. Thus the occupation along the lane joining the two major roads may have been early modern encroachment on the common in response to the development of coaching routes in the late 17th and 18th centuries, for this is all Ogilby shows here in 1675 while the hamlet was said to have eight inns in 1756.[104] The planform crudely depicted by Rocque could be compatible with this whole area representing encroachment on the common. In this area in 1479 Sayers, Reddings, Hantes, and Smithcroft were described as crofts, though Sayers and Reddings were attached to a cottage. The closes were adjacent or near to each other in the area of Pinchbank and Bentley Heath, whether they abutted the cottage or it lay elsewhere is unclear.

To the north and slightly detached from Kicks End was the house called Pinchbank, first recorded in 1310, which can be traced through later documents and is identified on the maps by Warburton in 1721 and Roque in 1754, although they are too inaccurate to allow close positioning. It is from the location of this house that it is possible to identify the other parcels of land named in 1479 and so reconstruct some of the medieval landscape.

Pinchbank holds further significance as Stow's Chronicle in 1580 records that in 1471 the wounded Earl Exeter was carried from the battle to a house called 'Ruthland'. In 1479 William Rutlond was the tenant at Pinchbank.

Monken Hadley poses a similar problem to Kicks End, for it is clear that in the 17th and 18th centuries the village was expanding by encroachment into the Chase and it is possible that much of the occupied area on the north and east sides of Hadley Green represents early modern green-edge expansion. Topographically the single row of tenement along the north side of Hadley Green looks very much like encroachment, as the Chase boundary skirts around it and it seems to sit across the mouth of the funnel shaped green as it opens into the pastures of the Chase. But if it is encroachment then did this happen before or after 1471?

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[104] Helen Baker, 'Wrotham Park and Kitts End' *Barnet and District Local History Society Bulletin*, No. 16.

Such questions here, in Kicks End and elsewhere may never be answered by documentary research though might be resolved through archaeological investigation. But this type of work is very time consuming and so is only viable once it is known where the battle was fought, at which point such analysis might significantly advance understanding as to the terrain within which the battle was fought.

While the exact extent of Barnet town is unlikely to have had similar tactical significance it is, as we have seen, significant in locating the site of the battle chapel and thus probably the battlefield as the distance to the battle chapel is described from it. Unfortunately we do not know where the town ended in 1471. It may not even be marked by the northern edge of Barnet parish, which was also the county boundary, for by 1553 the town had already expanded northward with shops and cottages lying alongside Hadley Green in the southern extremity of South Mimms parish.[105]

Another uncertainty is the degree to which the land in the study area was farmed in severalty, rather than in open fields. Certainly much of the land of the different manors and estates was intermixed although for some, like Old Fold, when we first see it mapped in the 18th century it is already a consolidated and enclosed area. As we have seen there were extensive open fields in the nearby township of Edmonton whereas others townships, such as Barnet, had seen early enclosure and when first mapped the only extensive areas remaining open were commons.

The 1479 document interpreted with reference to later written and mapped sources, shows a landscape north of Kicks End which is already substantially enclosed, divided between a number of manors or lesser estates including then or later Pinchbank, Old Fold, Dyrhams, Knightsland and Mandeville. What is unclear is the exact extent of these enclosed lands, though as noted above there is a hint that the commons may have been slightly more extensive at this time. Whether any of the later enclosed land was still or had ever been in open field is unclear. It may be significant that there is no reference in secondary works to open field, furlong or strip being mentioned in the deeds and other medieval and early modern sources for this landscape. This is yet another issue which requires further targeted documentary research.

There are two main areas within the study area that are most likely to have contained marshy ground. One is Margery Mead, within which on the east of the St Albans road a lake was created in Wrotham Park at some time after 1754, while further west the valley bottom becomes very wide and flat where several streams joined and thus may have been marshy before modern drainage. However no place names are recorded in this area before the uninformative names on the Tithe map. The other possible formerly marshy area is Monken Mead within the former Chase, where at the eastern side a pond had been created by the early modern period. This valley, with its head lying south westward towards Monken Hadley provides a much narrower valley bottom than Margery Mead but could still perhaps have held a sufficiently marshy area to accord with the mention in Von Wesel's account.

[105] VCH Middlesex Vol 5.

Archaeological investigation of Kicks End, the Hermitage and the potential Battle Chapel

Two phases of archaeological investigation of the historic landscape were undertaken as part of the project, seeking to address key questions not adequately answered through the documentary evidence.

In 2016 test pits were dug seeking physical evidence for the extent of medieval settlement at Kick's End. Unfortunately much of the area occupied in the 18th century, according to Rocque, is inaccessible beneath 19th century and later estate buildings, or has been disturbed by the former walled kitchen garden. Only the area now occupied by the pinetum could be examined and even here only a small area was accessible due to the extensive spread of tree roots. A methodology of shovel test pits was adopted, excavating 0.6m down to the natural in each of a transect of eight evenly spaced 0.5m x 0.5m test pits spaced at 5m intervals. Stratigraphy was recorded in each and the removed soil sieved to recover dateable artefacts.

This revealed soil layers overlying the natural geology, including probable historic topsoil which contained pottery of the 11th to 15th centuries. There was no stratified evidence for occupation nor a significant variation in the density of pottery between the test pits to suggest in which direction occupation might lie. Moreover, the sherds are fairly abraded, especially the earlier ones, so it is possible they represent a manuring scatter rather than occupation immediately adjacent. But the quantity of sherds suggests occupation continued somewhere nearby at the time of the battle. The ephemeral nature of the evidence is probably because the pits were in the gardens to the rear of the houses, though the tenement layout can only be crudely determined with reference to the small scale mapping by Rocque in 1754. There was also post-medieval ceramic building material in the pits, which presumably relates to the final demolition of the buildings on the northern edge of the common, clearance which began when New Lodge was built in the 1760s. Further extensive test pitting would be needed to determine exactly where the buildings of Kicks End lay in the late 15th century, but this may only be feasible if future tree felling or other works make a wider area accessible for investigation.

The second phase of work was to seek evidence for the battle chapel and to securely locate the Gannick bank. As noted above, a chapel built to commemorate the dead from the battle of Barnet was first recorded in the Great Chronicle of London in 1512: 'And at this ffeyld was slayn of the Comons upon both partyes iii M men or therabowth which were buried In the said playn well upon half a myle from the Town where afftyr was byldyd a lytyll Chapell to remember the sawlys of theym that wer slayn at that ffyeld…'[106] Stow later reports the killed 'on both partes to the number of foure thousand, which were buried on the same plaine, half a mile from Barnet, where after a Chappell was builded in memory of them, but it is now a dwelling house the top quarters remaine yet.'[107] The site of this building was identified by Baker with the moated site lying on the common land to the south of Kicks End, an identification supported by Warren after further research.[108]

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[106] The Great Chronicle of London, eds. A H Thomas and I D Thornley, 1938, p216 (copy Sutton 1983, p.216).
[107] Stow, *Annales or Chronicles of England*, 1615, p.423.
[108] Baker, 1970; Brian Warren, 'Reappraisal of the Battle of Barnet 1471', in Potters Bar and District Historical Society (ed.), (3: Potters Bar and District Historical Society, 2009) pp. 26-28.

This moated site was known in the early-modern period as the Hermitage and is shown on the enclosure map of South Mimms Common as a building lying within a moat, though this is probably not the original converted chapel.[109] One arm of the moat still remains as a pond today. The site lies in permanent pasture immediately south of the entrance road into the Wrotham Estate business park, although it has been subject to arable cultivation within the last few decades. The last time it was ploughed Warren undertook a fieldwalking survey.[110] This recovered an assemblage of early modern ceramic building material and pottery but nothing medieval or otherwise indicative of a medieval chapel. Examination in 2019 of the eroding inner side of the pond recovered a piece of dressed limestone, which might indicate the presence of a substantial stone structure somewhere on the island.

The rescaled historic map data was used to target geophysical survey of the moated site and a section of the Gannick bank. This was undertaken for the project in 2017 by a team from the University of Southampton, who were able in the available time to cover more than half of the former common to the south and east of the moated site. While this magnetometry identified the Gannick bank it failed to clearly define the circuit of the moat, identify any structures within it, or find any trace of a mass grave pit. A follow-up survey using ground penetrating radar and resistivity was therefore undertaken in 2019. This revealed much of the circuit of the moat and the boundary of the island, plus a possible metalled area of rectilinear form on the island which broadly relates to the building mapped in the 18th century. The moat and possible metalling from the GPR and resistivity data generally lie within a metre or two of the rescaled historic map data. What the GPR did not find is any trace of a buildings underlying the cottage, nor any large pit which might represent a battle mass grave. The GPR data also added to the evidence from the magnetometry for the course of the Gannick Bank, again within about two metres of the position given in the rescaled historic map data, indicating a high level of accuracy in the project's map regression.

The map regression and magnetometry data were used in 2017, by Sam Wilson with a volunteer team from Barnet Museum, to target excavation of 16 test pits of 1m x 1m, aimed to confirm the extent of the moat and seek evidence for the structures within it.[111] Natural geology was encountered at widely varying depths while the intervening stratigraphy included substantial demolition deposits containing large quantities of early-modern brick and tile and a number of large flint cobbles.

While too small to understand the wider stratigraphy of the site the test pits confirm key interpretations of the geophysics, while the pottery assemblage suggested spanned the 15th to 18th or 19th century, which is consistent with the documentary analysis of the site. The large cut feature in pits 6 and 15 correlates with the inner edge of the western arm of the moat, which is seen to contain multiple deposits, the lowest of which were waterlogged. The un-frogged handmade bricks from the rubble in its infill may derive from the early modern domestic structure which stood within the moat until the mid 18th century, with a brick culvert later cutting through this demolition rubble. Several other cut features were found but no in situ structural remains. However given the materials with which the medieval Monken Hadley church is constructed, it is possible that the dressed stone from the moat side, noted

[109] Hatfield: CPM Supp47.
[110] Warren pers. com.; archive in Barnet Museum.
[111] Cotswold Archaeology, 2017. *Battle of Barnet Survey, Wrotham Park, Barnet, Hertfordshire. Archaeological Test Pitting*, unpublished report no. 17672

above, together with the flint cobbles and a small fragment of dressed stone from the test pits might derive from demolition of the chantry chapel. Most importantly, the test pits have demonstrated survival of stratigraphic evidence which should be sufficient to enable larger scale excavation to determine whether the moated site did originate as a late medieval chapel.

The possible metalling and indeed the moat itself, like the building and moat on the historic map, show an orientation well away from east-west, which might have been expected if this represented the battle chapel. While a chapel need not have had a perfect east-west orientation this whole site is so far away from that orientation that it does question its identification as the site of the battle chapel. Taken together with the lack in the GPR data of any indication of an alternatively orientated building beneath the later features, this reinforces concerns over the limitations in the documentary trail used to identify the moated site with the battle chapel. However if the chantry was founded as a responsibility for a hermit and the chapel formed just a room in a hermitage, either existing or newly built perhaps even within an existing moat, then this could account for the lack of an east-west orientation of the whole building. As for the failure of the geophysics to locate a mass grave, this may not be a repeat of the difficulties seen at Towton and elsewhere in locating such features using geophysics, it might simply be that it was nearby but not within the moat itself.[112] A priority here will be to ensure that all future ground disturbance in the general area is subject to evaluation or at least an effective watching brief.

Identifying the battle chapel with confidence is a crucial piece of evidence if the battlefield is to be located and understood. The present work has shown that confirmation as to whether this moat represents the chapel site is now only likely to come from far more substantial excavation seeking the earliest structure on the moated island. The test pitting has also shown good survival of stratigraphy for such investigation, though it is essential that the site is not cultivated again before such excavation is undertaken or that evidence is likely to be destroyed.

[112] Thanks to Richard Morris for advice on the ecclesiastical issues regarding the moated site.

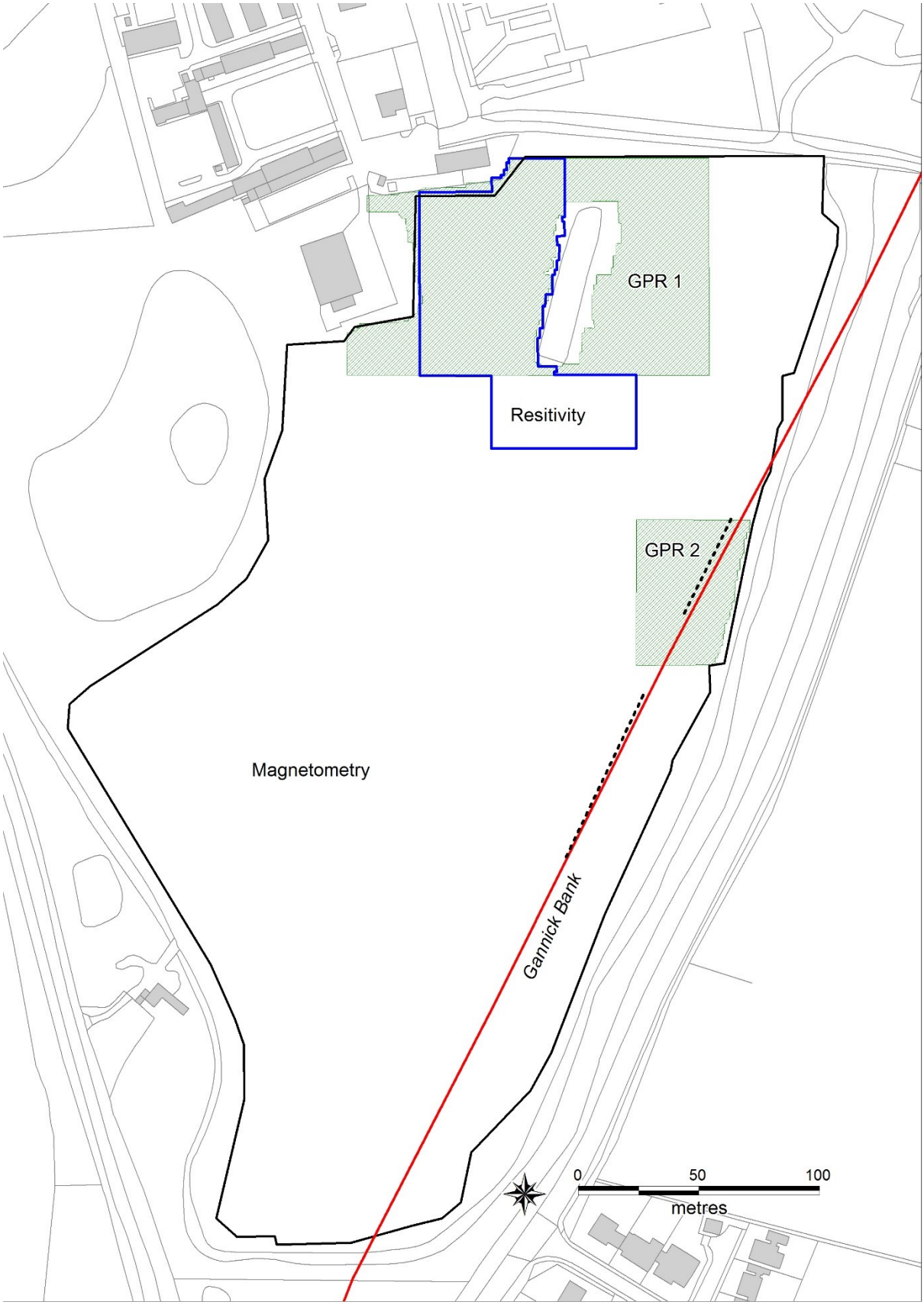

Figure 25: Geophysical survey key on an OS Mastermap base. © *Crown copyright and database rights 2020 Ordnance Survey 100025252*

Figure 26: Magnetometer survey on an OS Mastermap base.

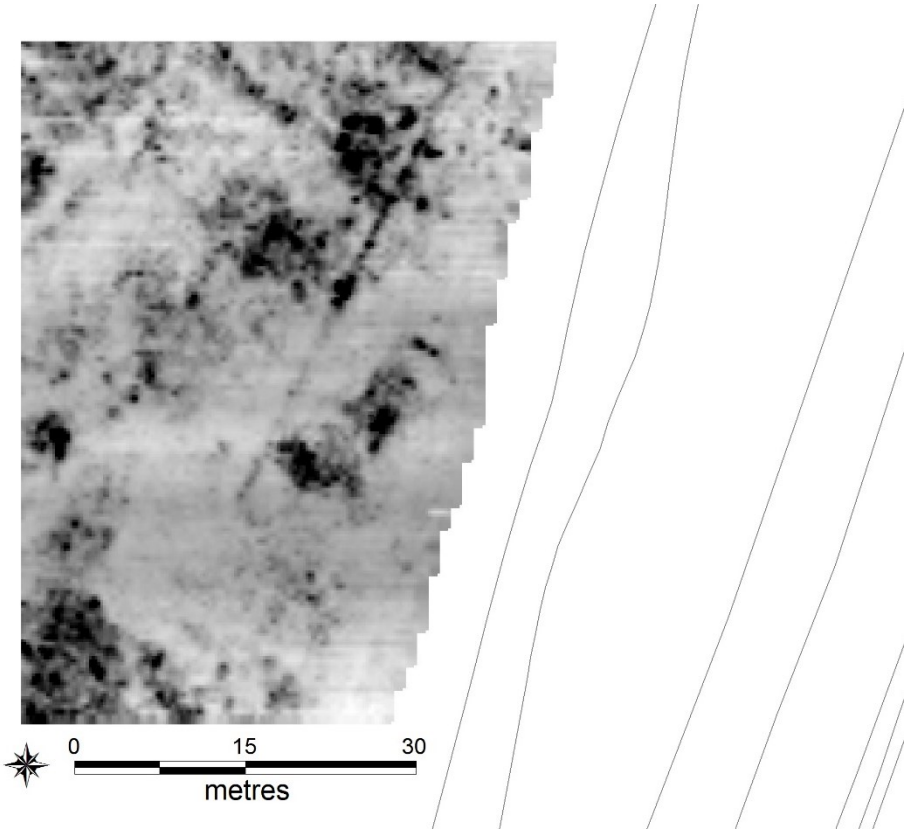

Figure 27: GPR survey for the Gannick Bank (GPR2.1) on an OS Mastermap base.

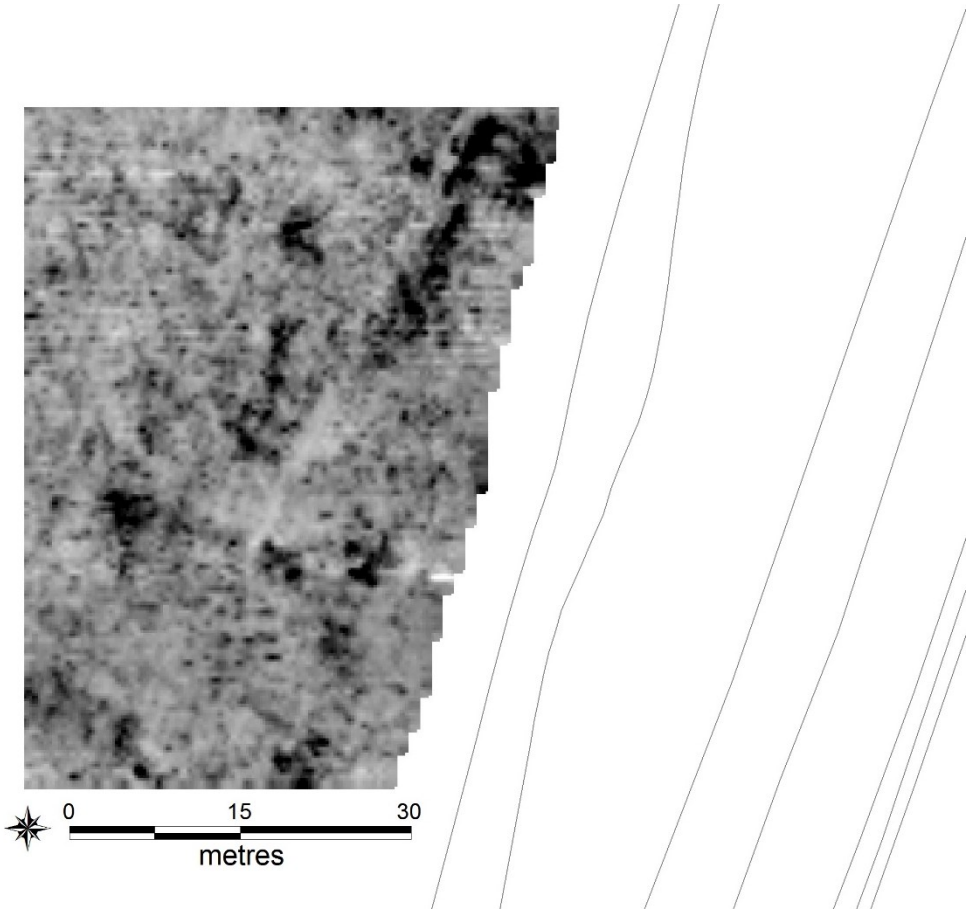

Figure 28: GPR survey for the Gannick Bank (GPR2.2) on an OS Mastermap base. © Crown copyright and database rights 2020 Ordnance Survey 100025252

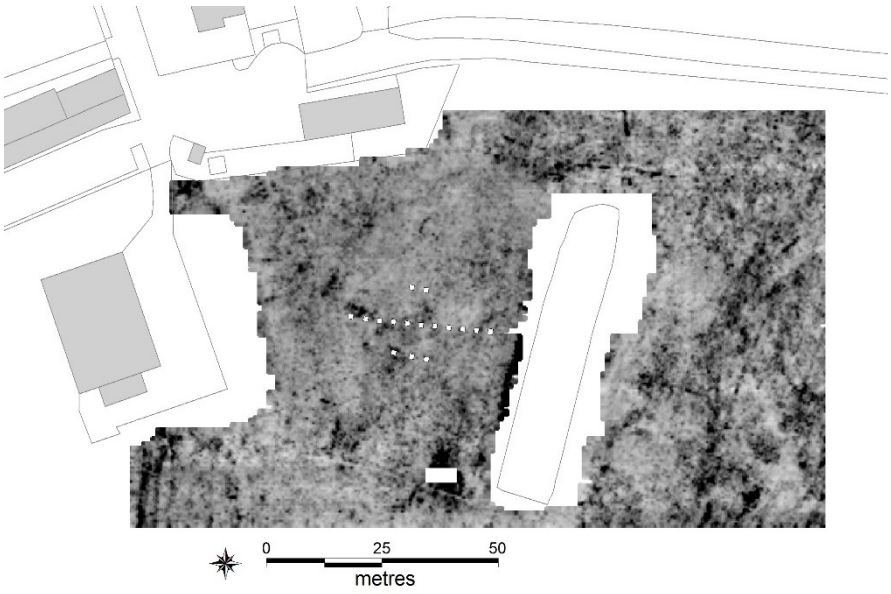

Figure 29: GPR survey of the moated site (GPR1.1) on an OS Mastermap base. © Crown copyright and database rights 2020 Ordnance Survey 100025252

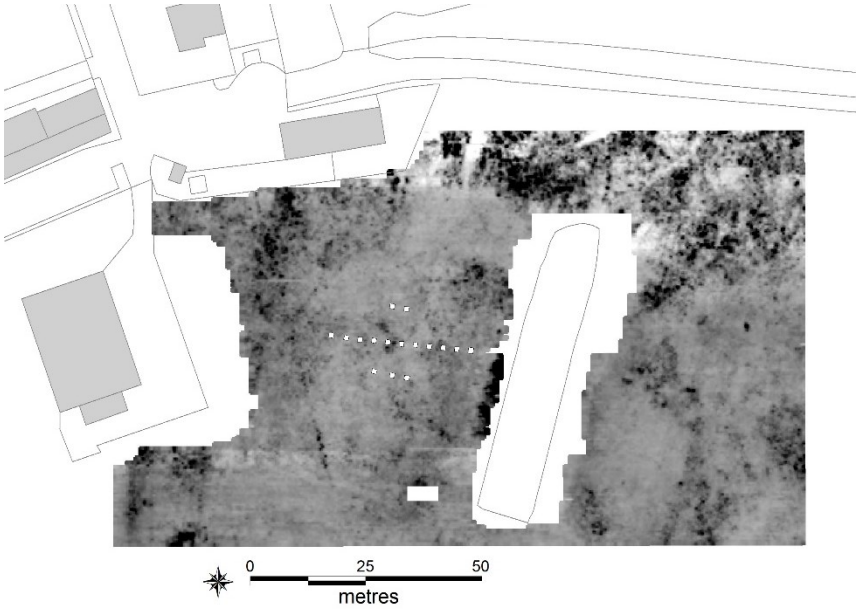

Figure 30: GPR survey of the moated site (GPR1.2) on an OS Mastermap base. © Crown copyright and database rights 2020 Ordnance Survey 100025252

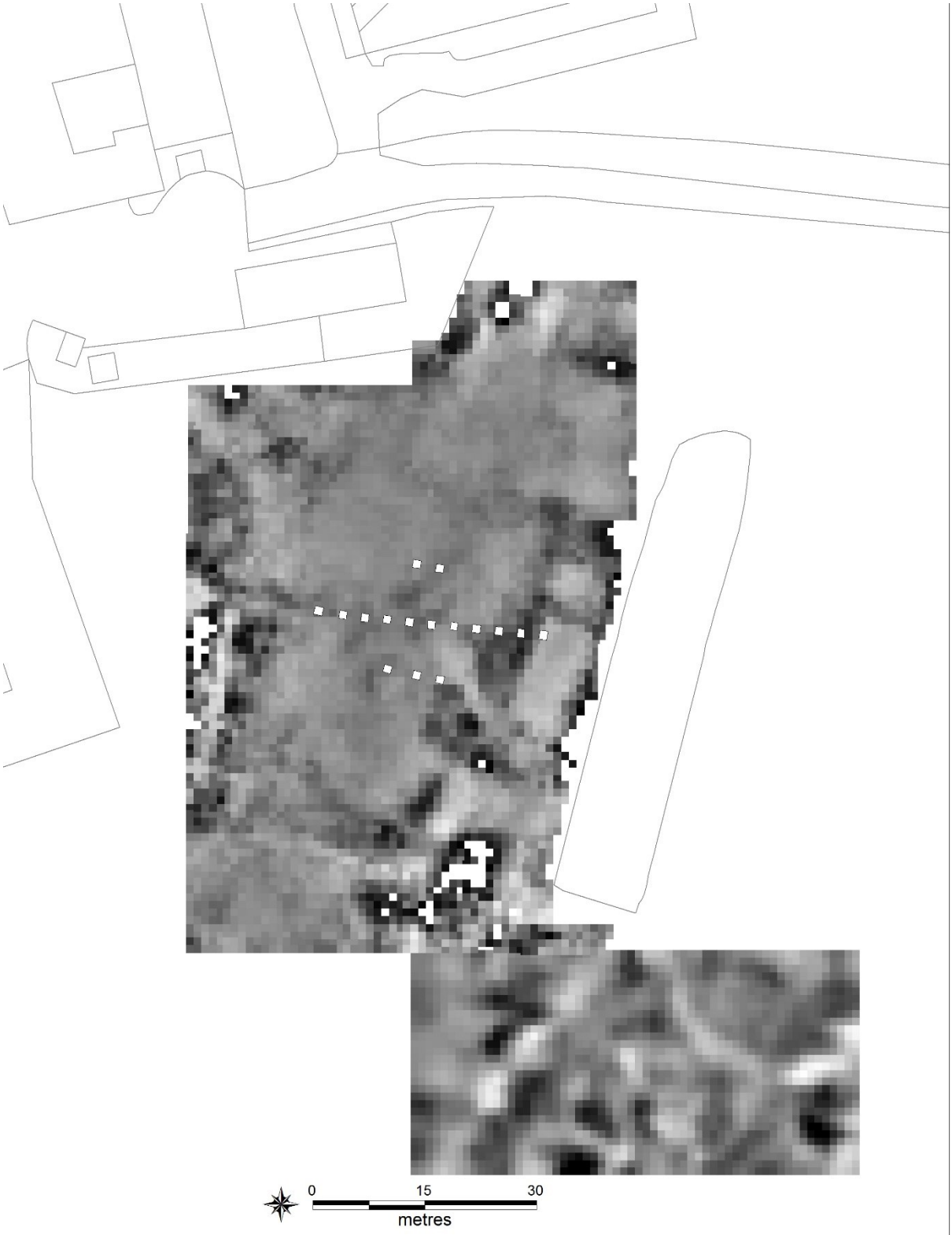

Figure 31: Resistivity survey of the moated site on an OS Mastermap base.

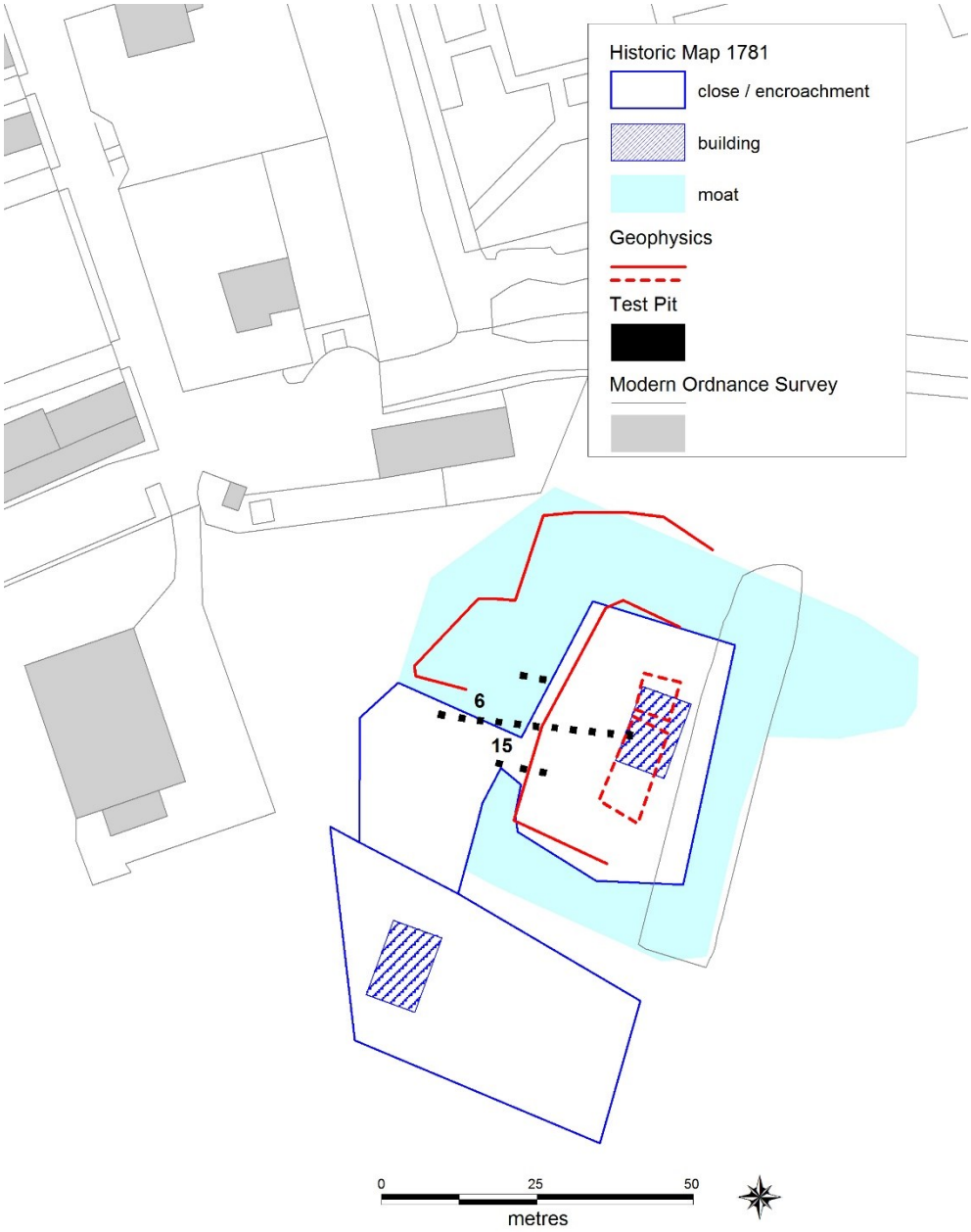

Figure 32: Composite plan of the moated site showing correlation of historic map regression, our interpretation of key features from the geophysics data, and test pits on an OS Mastermap base.

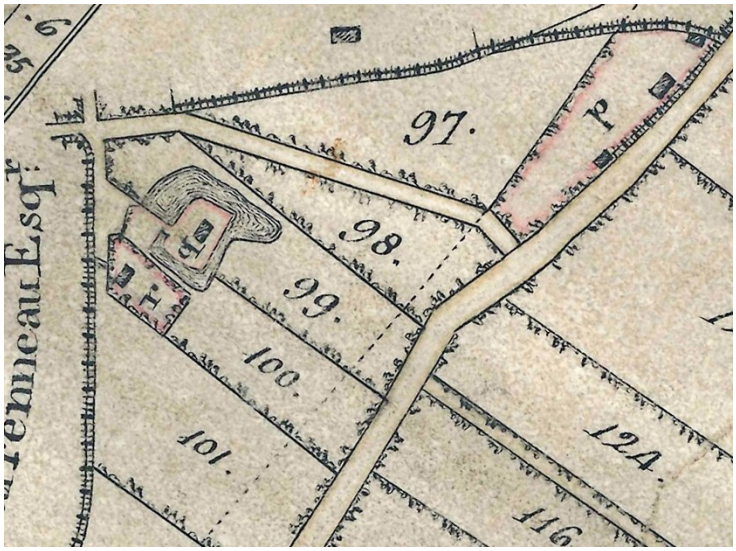

Figure 33: Moated site as depicted on the Inclosure map of Enfield Chase. Reproduced by permission of the Marquess of Salisbury, Hatfield House.

4. Placing the events within the historic terrain

Primary sources for battles of the Wars of the Roses rarely provide much topographical information by which one can seek accurately to place the deployments and action in the historic landscape. For Barnet, unusually, they provide eleven significant pieces of evidence relating to the landscape, though unfortunately almost all derive from a single source – Von Wesel – with little complementary evidence from the other sources against which to assess the validity of his statements.

The line of approach of both armies, together with related skirmishes at a distance from the battlefield, provide the initial framework within which to search for the exact site of the battle. Von Wesel states that *'Around seven o'clock in the evening, as King Edward marched away from here (London) and came into the vicinity of Hornsey Park, six miles from London, Warwick's vanguard encountered him and they had a skirmish thereabouts and they chased each other in the dark as far as a village called Barnet, ten miles from London….'*. The Arrivall, which was copied by Waurin, also reports a skirmish but only between scouts and this it placed in Barnet itself: *'… and soo, that aftar none, he roode to Barnete, x myles owte of London, where his aforne-riders had founden the afore-riders of th'Erles of Warwikes hooste, and bet them, and chaced them out of the towne…'*

As we have seen, Warwick was approaching southwards from St Albans and in response Edward marched north from the Smithfield area of London. Both armies clearly marched on the London to St Albans road, one of the most important medieval routes from the capital to the Midlands and beyond, which is depicted as running through Barnet on the Gough map, usually dated circa 1370 but with later amendment.[113] For more detail on the road one must consider Norden's late 16th century geography of Hertfordshire and Middlesex, complemented by Ogilby's 1675 Itinerary, together with more local mapping discussed and analysed above for the area immediately north of Barnet. For the route south of Barnet one can also draw upon the analysis in the VCH for Middlesex. Norden records an early course for the St Albans road, running from Grays Inn to Barnet. Ogilby also shows the southern half of this, which both name as Longwich Lane, while Ogilby gives a third alternative a little further west. All of Ogilby's roads converge just before Highgate and run on through Hornsey Park and Finchley Common to Barnet.[114] But Norden explains that before he was writing in the late 16th century the route along Longwich lane had passed east of Highgate and on through Crouch End, Muswell Hill, Colney Hatch and Friern Barnet, rejoining the road then in use just before Whetstone. This change, made in response to the awful muddy conditions of the old route in winter, took place in 1386. Thus by 1471 the Ogilby route was already the main road.[115] While there may not be many

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[113] http://www.goughmap.org/

[114] 'The old and auncient high waie to high Bernet, from PortePoole, now Grayes Inne, as also from Clerkenwell, was through a lane, on the east of Pancras Church, called Longwich lane, from thence, leaving Highgate on the west, it passed through Tallingdon lane and so to Crouch ende, and thence through a Parke called Harnsey great parke, to Muswell hill, to Coanie hatch, Fryarne Barnet, and so to Whetstone, which is now the common highway to high Bernet. This auncient high way, was refused of wayfaring men, and carriers, by reason of the deepenes and dirtie passage in the winter season: in regard whereof it was agreed betweene the Bishop of London, and the Countrie, that a newe waie shoulde bee layde forth through the said Bishop[s parks, beginning at Highgate hill, to leade (as nowe is accustomed) directly to Whetstone….' Norden, 1598, *Speculum*, p.14; and his map of Middlesex between p8&9.

[115] Longwich Lane is later known as Maiden Lane, which is mapped as a third alternative by Ogilby and is the route shown here. VCH, Middlesex, vol.5 p.389-405.

places where such substantial changes in the major road network took place during the medieval period, it shows the potential problems of depending on the evidence from early modern sources such as Ogilby or Norden for the main road network during the Wars of the Roses. In this case the documentary evidence is so extensive and already so well researched, not least because we are close to the capital, that the complexity can be unravelled. Elsewhere we have to work much harder and for some other battles the evidence for significant changes may not be easily identified or simply not survive.

In 1471 Edward's army will thus almost certainly have used the Ogilby route and it is along this road, in the vicinity of Hornsey park, that there was the first clash between Warwick's and Edward's forces, according to Wesel – though it was probably just scouts or a small mounted advance detachment of Warwick's army not its whole vanguard, as Wesel claims. If this is correct, then the Lancastrians will surely have chosen a strong tactical position that gave them a good view of the approaching Yorkists, perhaps deploying at the top of Highgate hill or on the lesser ridge top just north of the park (figure 34).[116] What is sometimes described in fine detail in reports of 17th century engagements during the Civil War but rarely revealed in accounts from the Wars of the Roses is perhaps just hinted at here by Wesel. This is the way in which scouts or perhaps larger detachments of cavalry were pushed well forward of the main body when on the march to determine the enemy approach and strength or, where necessary, to delay that advance by skirmishing to give time for their main body to deploy at some distance to the rear. If Wesel is correct then this detachment deployed almost seven miles ahead of the Lancastrian army.

[116] We have mapped Hornsey Great Park from the reconstruction map in William Mc Beath Marcham and Frank Marcham, 1929, Parish of Hornsey, which is reproduced in Michael Hammerson, Historic Highgate Wood (City of London) 2009, while the early 19th century extent of Finchley Common is taken from VCH, Middlesex.

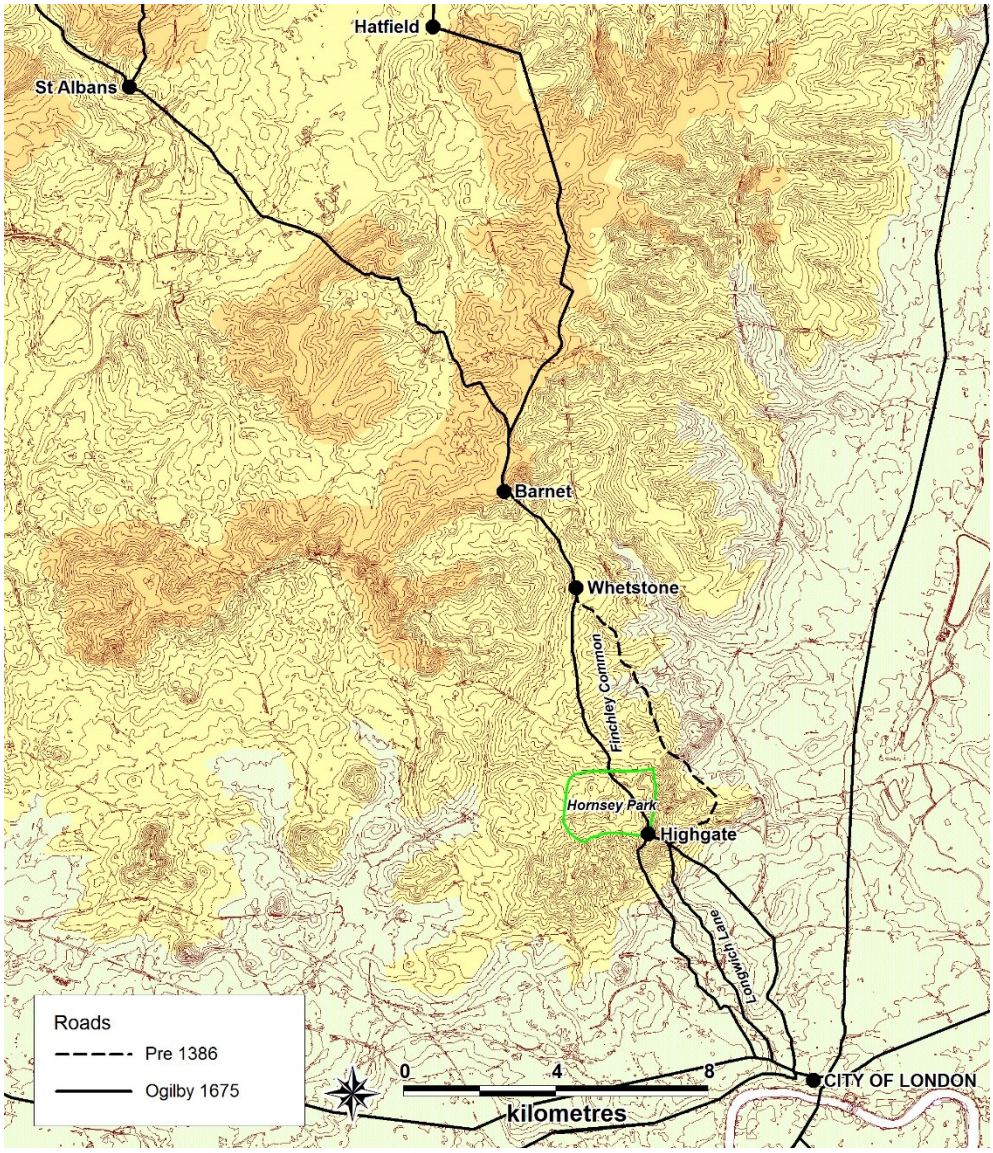

Figure 34: Roads and relief, showing the major early routes leading out of London, based principally on Norden and on Ogilby. Relief from Ordnance

If Wesel is in error in his report, that the skirmish took place near Hornsey Park, it is not wrongly located through poor understanding of local topography. Wesel's topography is clearly correct in that the main road from London through Barnet to St Albans did at that time pass through Hornsey Park.[117] The timing he gives also makes sense for it indicates a rate of march from London of around two miles per hour, not unreasonable for a large army with its artillery and baggage train. From St Albans to Kicks End is 9 miles (14 km) and to the south corner of Hornsey Park at the top of Highgate hill, where the road climbs northwards up a steep hill out of the Thames valley, it is 16.5 miles (27 km). From St Paul's in the City to the top of Highgate hill is 5 miles (km) and then to Barnet town 6.5 miles (8 km). Their rate of march was thus approximately 1.7miles (2.6km) per hour. In early April (correcting for the Julian calendar) sunset would be at around 18:33 GMT, with nautical

[117] Both roads are described by Norden in 1598 and in 1675 Ogilby still records them, along with a third alternative. Ogilby 1675, plate 21.

twilight ending at around 19:45.[118] Thus the skirmish reported by Wesel and the pursuit to just beyond Barnet would have had to have lasted at least 45 minutes to end in the dark, if his timing is correct.

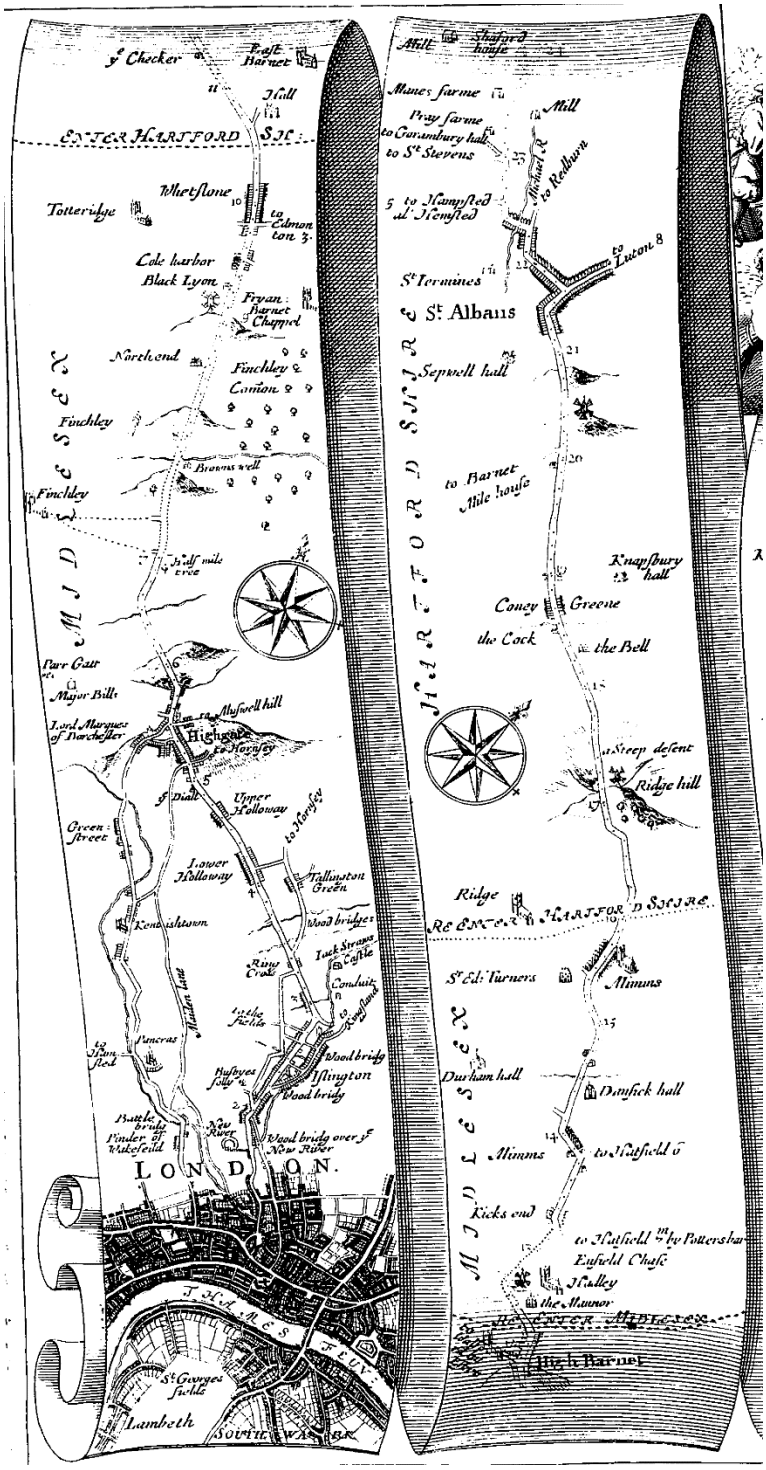

Figure 35: The London to St Albans road from Ogilby's Itinerary (Ogilby 1675, plate 21)

How then do we account for the conflict between Wesel and the Arrival? The latter says Warwick sent his scouts forward and they encountered Edward's scouts at Barnet, from where the Lancastrians

[118] Modern military forces consider nautical twilight sufficient for military operations.

were chased back to Warwick's main body which was already deployed in battle array. Wesel provides far more detail, having them chased back from Hornsey Park and arriving on the field in the dark, and he gives specific timing compared to the Arrival's vague 'afternoon' when Edward marched from London. If Wesel is correct in the placing and timing of the skirmish then Arrival must be in error over location, but surely it is Wesel who confuses the nature and scale of the action.

The real significance for us of the discrepancy between the Arrival and Wesel is the question it raises over the reliability of the details in Wesel's account – a crucial matter since he provides most of the topographical evidence for the battle. What we know of the man, set alongside a review of the detail he provides may help in assessing this reliability. He was a leading continental merchant from Cologne who had been based in London for many years and had connections at the highest political levels, for he was undertaking key commercial negotiations.[119] Thus he may be expected to have had an exceptionally good grasp of English and access to leading combatants from the battle soon after they returned to the capital. From his description of the events of the day before the battle he shows he understood the local topography, not least perhaps through personal experience as the St Albans road had long been a principal route from London to the Midlands and beyond. Although Wesel was in London and not with the army, the level of tactical detail in his account surely indicates evidence provided by one or more eyewitnesses. Could it simply be that it was his restructuring of such evidence into a single coherent report, alongside the translation from English to German in his letter that introduced errors into his account?

What is not credible is that, with the enemy so close, Warwick would have pushed his 'vanguard' five miles in advance of his other two battles as Wesel claims – and he does use 'vurwarde', the specific German word for vanguard – nor is it likely that it would have engaged if it was so exposed. Only if Warwick had gravely miscalculated and his whole army was in line of march on the road behind the vanguard was such a major skirmish likely have taken place, to enable retreat and deployment of the other two battles, though then it is improbable that he would have withdrawn so far as Barnet to finally deploy. Thus, if there was action at Hornsey Park it was surely a skirmish between scouts, something the Arrival describes as taking place in Barnet. That the problems in Wesel's account might run deeper is suggested, as we shall see, by difficulties that arise when we seek to apply his detail of the battle to the late medieval landscape to the north of Barnet, as far as we currently understand it. In part this could simply reflect the usual problems posed by eyewitness accounts, each having different perspectives according to where they were in the Yorkist battle array. Thus the presence of a hollow and marsh within which Edward's troops deployed, according to Wesel, might reflect the terrain at just one end of the Yorkist battle array as experienced by one eyewitness he talked to. Such problems could be compounded where Wesel tried to integrate accounts from different eyewitnesses into a single coherent description, perhaps leading to confusion of different features, as for example because there were two major roads crossing the battlefield which he may have confused. Meaning might have been further obscured in Wesel's translating of certain technical or topographical terms from English to German, but it is only the modern translation back into English that is now amenable to review. Some problems could equally apply to the Arrival, though not of course ones of translation as it was written in English. For example, the description we have of Warwick

[119] Stuart Jenks, 2004, *Dictionary of National Biography*, https://doi.org/10.1093/ref:odnb/52252.

deployed behind a hedge might represent his whole army, but equally it might refer only to that part of the Lancastrian deployment seen by the scouts. Unfortunately, with so few accounts available and none of real value written by an eyewitness themselves, there is little room for comparative study to seek independent corroboration between sources. We have therefore to cautiously accept the details we have unless there are strong reasons to dismiss them. For battles so poorly documented as those of the Wars of the Roses our validation is principally a matter of determining whether they make sense when viewed within the reconstructed terrain or in relation to any distribution of battle archaeology.

While the pre-battle events provide insight into the tactical problems faced when an army of the period was marching in close proximity to the enemy, the conflict in the detail given by our sources is not a problem which we need to solve here. Wherever this initial encounter took place and whatever its scale, will make little difference to our understanding of where the battle was fought, because there is little doubt that Edward approached along the St Albans road, finally marching northwards in the dark from Barnet to face the Lancastrians. With these caveats in mind, how might the deployments and action be placed within the reconstructed historic terrain to the north of Barnet?

As we have seen, our picture of that terrain in 1471 is incomplete due largely to its complex character, resulting from extensive but piecemeal early enclosure. Within a landscape with extensive enclosures a late medieval commander might be expected to have sought out the open land for a battle, but to have exploited the defensive potential of the boundaries dividing the open from the enclosed area when deploying his battle array. This would force the enemy to attack him by advancing across open ground where they would be vulnerable first to artillery and then at closer quarters to archery, intended to break the enemy formations before they came to hand strokes. Then the defenders would have the final advantage of a defensive boundary – as the Arrival states, Warwick had deployed his troops at Barnet under a hedge side. Here too Wesel provides some corroboration for he has the two armies deploying on opposite sides of a 'broad green plot'. This would bear comparison to the way in which centuries later Lord Fairfax chose to deploy at Adwalton Moor, in 1643, taking the hedges bounding the moor and forcing his enemy to attack across the open moorland. But Fairfax had a force strong in musketry and weak in cavalry and pike, facing an opponent strong in cavalry and pike who had confidently deployed on the moor itself. Does Warwick's defensive deployment similarly indicate a weakness in cavalry but strength in archers and artillery compared to Edward? More likely it reflects a very different set of tactical considerations in the late 15th, compared to the mid 17th century, for there are a number of battles of the Wars of the Roses and contemporary continental battles where armies sought out defensive positions in the landscape, as at Bosworth where Richard deployed behind a marsh. This is an important issue which can only be effectively addressed by the study of a wide range of battles where the action can be placed securely within historic terrain that is understood in detail. Hence our attempt to bring together data on both terrain and action for all the battlefields of the Wars of the Roses and to explore in high detail those like Barnet and Mortimer's Cross, which appear those most amenable to archaeological investigation.

Barnet battlefield should therefore contain an area of open ground bounded by ancient enclosures. This should be close to the London to St Albans road to the north of Barnet, as both the Arrival and Wesel make clearly this was the route used by both armies to approach the battlefield. Wesel also states that Warwick deployed *'just beside'* this highway and that later Edward deployed on the other side of *'the said road'*. However his other comment that Warwick '*set up his ordnance of arquebuses and serpentines up the way towards Barnet'* does not specify the St Albans road so it is possible that here he is referring to the Hatfield road.

As in most other battles of the Wars of the Roses, it seems that at Barnet a major road is a key terrain feature. The army which chose the ground is likely to have deployed to control that route because this was the line of approach expected of the enemy and if not controlled it might present a danger of being outflanked. This is true of the two cases where the location and extent of the battlefield has been securely determined using battle archaeology. At Bosworth the action spanned the main road from Watling Street to Leicester, while at Towton both armies deployed to control the main road from London to York and a lesser route. At Barnet according to Wesel the Lancastrians deployed immediately adjacent to the St Albans road between half a mile to a mile north of the town. This places the action on the fairly level hilltop, as Holinshed says, being well back from where the road finally completed its climb out of the Thames valley. There is no reason to believe that significant changes took place to the road's course from Barnet to South Mimms between 1471 and its first detailed mapping in 1675 because, as we have seen, late medieval sources for the area around Kicks End confirm the road was on or very close to that mapped by Ogilby.

Determining the exact distance of the battlefield to the north of Barnet along this road is the first problem. Both the Arrival and Wesel making clear that the site lay beyond Barnet in relation to Edward's approach from London. However, while the Arrival has Warwick deployed '*more some what than an halfe myle'* from Barnet, Wesel states Warwick was a mile from the settlement, and the Great Chronicle of London agrees saying the battle was fought *'well lyke a myle'* from Barnet. The half mile measurement seems significant as it is also found in Paston letter and that is our only eyewitness: 'There was kyllyd upon the ffelde, halffe a myle ffrom Bernett on Esterne Daye…'[120] Given that John Paston fought for the Earl of Oxford in the Lancastrian vanguard he might be expected to have judged the distance from where he deployed. However his immediate experience of that distance was probably in combat as Oxford pursued the defeated Yorkist rearguard – not perhaps the best time in which to accurately judge distances.

One way to approach the problem of accuracy of contemporary estimates is to assess known journeys. In this case we can take the 10 miles that Wesel and others quote as the distance to

[120] N. Davis, *Paston Letters and Papers of the Fifteenth Century*, vol 1 (Early English Text Society, Oxford 2004), p. 438 (letter 261).

Barnet from London. The accurate distance given by Ogilby along the road the Yorkists will have taken, measured using a waywiser, was 12 statute miles from Cornhill. This might suggest that the primary sources for the battle underestimate by as much as 20%. The other difficulty is deciding from where in Barnet the distances were judged. In the absence of early mapping or documentary evidence one can either take the town centre at the point at which the main street joined the St Albans road beside Barnet chapel, or the northern boundary of the township, though this is a discrepancy of only 200m. Ogilby in 1675 shows houses extending north almost to this boundary, which is also that of Hertfordshire and Middlesex as well as that between Barnet and Hadley, though one might question his reliability at this level of detail and later maps show houses and shops extending north into Hadley parish.

The Great London Chronicle places the battle chapel and with it the battlefield one mile from Barnet. If one takes the township/county boundary and measures 1 mile plus 20% (1.2 miles, 1.9km) north it reaches almost exactly to the moated site on Kicks End common which, as we have seen, may be where the battle chapel stood. On the same basis the Arrival, if taken to mean just over half a mile, would place Warwick at the northern edge of Hadley Green in the general area suggested by Burne. Given the approximate nature of any such contemporary estimates of distance, we have extended our search area from Hadley Green to a maximum of 2 miles (3km) north of Barnet, so encompassing Dancers Hill, to ensure other potentially relevant terrain is not excluded. This gives a broad zone set along the St Albans road within which the battlefield probably lies.

Within this zone what are the topographical details provided by the primary sources that may allow the action to be more accurately placed? Several sources simply describe the battlefield as a 'plain': the Great Chronicle of London says Warwick *'pycchid his ffeyld upon the playn wythowth the toun well lyke a myle thens'*; Fabyan that the battle was fought on a *'playne without Barnet'*; Rastell on a *'playne beyonde Barnet';* and Holinshed on a *'faire plaine'*. The most common usage of 'plain' encountered in study of the historic landscape is of open and untilled ground in woodland, but this meaning probably should not be taken here, despite the proximity to Enfield Chase. The term, regularly applied to battlefields in primary sources, is undoubtedly applied here in the more general early usage of a broad tract of land which is comparatively flat.[121] But this was not a completely open landscape, because the Arrival specifies that Warwick deployed '*undre an hedge-syde*', presumably to exploit its defensive potential. This must have been a roughly east-west hedge with Warwick deployed on the north side and facing southward, for the Arrival says the Yorkist scouts who first encountered the array were driving Lancastrian scouts out of Barnet; later that Edward's left wing was on the west and his right on the east; and also that troops from the rearguard, positioned on the left wing, fled towards Barnet and London during the battle.

Wesel states that Edward deployed in a hollow or marsh. That the Yorkists did deploy in lower lying ground may be supported by the fact that in the dark Warwick's artillery overshot the Yorkist array, though this is explained by the Arrival as a result of Edward deploying closer than normal to the enemy. Given the level of tactical detail provided by Wesel it is surprising he does not mention the hedge. What he does say is that Warwick deployed 'on a broad green plot'. It was across this ground that much of the battle would be fought, for

[121] OED.

Wesel specifies that Edward deployed on the other side of the same broad green plot, on the opposite side of the St Albans road to Warwick. He seems to be describing an extensive area of pasture and implies boundaries, but there is no indication as to whether it was a very large enclosure, such as the large sheepwalks that are known to exist in other English regions at this time, or simply a common or other unenclosed ground. That is unless in translation to the German a more specific English meaning of 'green' as an unenclosed common has been lost. If the latter then the Lancastrians deployed behind the hedge would be just within enclosures on its northern edge. The enclosures bounding a common is likely to be easier to identify in this historic landscape than simply a large hedged pasture because of the documentary evidence that enclosure of the former often leaves. However, in this landscape we also have a third option, because there were also broad open pastures within the western limits of Enfield Chase, which extended up to the St Albans road where the High Stone now stands.

The account by John Rastell reinforces this link to Enfield Chase, as noted by Warren in 2009 even if he placed upon it a significantly different interpretation to that suggested here. Although it is a late account, with Rastell writing in London in 1529, he had lived in Monken Hadley for a period from 1515 so is likely to have had local knowledge obtained at a time within living memory of the battle. When describing the Lancastrian vanguard's attack he briefly follows Fabyan's text, with just a word or two altered, but he then makes a significant addition, here underlined: *'...and the erle of Oxfordde, havynge the vawewarde, quytte hym so well that he bare over that parte of the fylde whiche he set upon, and beate them backe upon that parte nexte Enuylde chase.'*[122] In this section of his text Fabyan uses the term *'fylde'* in its sense of battle array, saying the Lancastrians *'pyght theyr fylde'* in a plain outside Barnet. Rastell seems to be using the term in the same way, referring to *'that parte of the fylde whiche he (Oxford) set upon'* and then *'beate them backe'*. When he uses *'that parte'* again, he thus seems to mean another part of the Yorkist battle array. Oxford was on the Lancastrian right, which overwinged the Yorkist left under Hastings. Given that the right of each army overwinged their opponent's left one might suggest this means that during the action both battle arrays pivoted on the centre in an anti-clockwise fashion, but there is nothing in any account that specifically states this. When a battle was overwinged on its left flank then that wing was likely to be pushed somewhat to its right and thus into the left wing of their main battle. Given the broadly north-south orientation of the western boundary of the Chase, Rastell's addition thus supports the east-west alignment of the Yorkist battle array, as discussed by the Arrival, and suggests that once the Yorkists had closed to hand strokes that neither the Yorkist rearguard nor their main battle lay within the Chase, though it would allow for their vanguard still to be within its boundary.

As Warren has noted, Warkworth provides another potentially significant topographical clue, saying that after the battle the wounded Earl (Duke) of Exeter was taken to a house by one of his men. Much later Stow identifies this as Ruthland's house. Baker has shown that Rutland was the tenant of the house called Pinchbank in 1479, a substantial house lying immediately north east of Kicks End (figure 24).[123]

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[122] John Rastell, 1529, *The pastyme of people*. Biographical detail for John Rastall (1468-1536) in *The History of Parliament: the House of Commons 1509-1558*, ed. S.T. Bindoff, 1982.
[123] Baker 1970 Wrotham Park and Kicks End.

The Great Chronicle of London provides a further detail, regarding the location of the battle chapel, constructed at some time after 1471 as a chantry in memory of the dead. The Chronicle says the dead were buried *'in the said plain'*, that is where the battle was fought, and that this was a mile from the town where a chapel was afterwards built. In 1589 or 1606 reference was made to the local tradition that the Hermitage at Kick's End had been that chapel where the dead were buried: 'As for the Hermytage it lyeth in the heath; supposed to be builded upon a waste or common belonging to this Mannor: and some wast dooth lye rounde abowt yt. It was (as I am enformed) a chappell wherein the dead bodies were buried in Barnett feilde….'.[124] This building was tentatively identified by Baker, followed by the Victoria County History, with the moated building recorded on 18th century maps. Subsequently Warren presented a more comprehensive analysis of the chain of documentary evidence for this link.

The nature and extent of the action in the rout is hardly mentioned in the primary sources. However, given that the Lancastrian deployment was south facing and adjacent to the St Albans road, along which they had advanced to the battlefield, it seems likely that many of Warwick's troops will have routed north-westwards along this road. Though local traditions must always to be treated with scepticism, unless supporting evidence comes to light, there is one which refers to fighting as having taken place in what later became Rabley Park in the parish of Ridge, which lies not far from the St Albans road. According to Harper: 'The obelisk [High Stone] was erected by Sir Jeremy Sambrooke in 1740 on the spot where Warwick is said to have been slain. There is, however, another spot which aspires to the honour, at Rabley Park, near South Mimms. This also has its monumental pillar, but without inscription.'[125] However the inscription on the obelisk, placed there when it was re-erected in 1999 states: 'This monument is thought to have been erected by the Dudding family who lived here 1797-1812 to celebrate their cousin Admiral Nelson's victory at Trafalgar. Re-erected 1999. That the Earl of Warwick died here after the Battle of Barnet in 1471 is probably a myth'.

Others may have fled north-eastward along the Hatfield road, depending on the exact position of the Lancastrian array. Any other routes to the north will have posed major difficulties as the lesser roads here were all narrow winding lanes through hedged enclosures which led into a more wooded area. Indeed the one vague topographical reference to the Lancastrian rout provided by Warkworth may allude to this landscape, for he says that the Earl of Warwick '*flede to a wode by the felde of Barnett, where was no waye forthe'* and there he was killed. If this is a genuine report it is conceivable that Warkworth is referring to the wooded landscape to the east, in the central and eastern parts of Enfield Chase, but it is more likely, given the way the Lancastrian centre and right were pushed back, to have been the woodland in the more complex enclosed landscape to the north west.

Based on these topographical clues three principal areas can be identified which are compatible to a greater or lesser degree with the evidence provided in the primary sources, taking the St Albans road as the key topographical feature. They are Hadley Green; Kicks End, and Dancers Hill. With each location some difficulties arise when trying to reconcile all the topographical evidence with the reconstructed terrain. Given the problems we have encountered in locating the battle it now seems that a fourth area, Bentley Heath, should be

[124] Valuation of the Manor of South Mimms, c.1589. Baker gives 1606, Warren 1589 but both cite the same source Hatfield Gen. 66/7.
[125] C G Harper, 1922, *The Great North Road*, 80. Rabley obelisk is at NGR TL20826 01199.

added to our list, even though it is away from the St Albans road. While in certain situations a commander might deploy at a significant distance from the main road he and his enemy were advancing along, to exploit tactically advantageous ground, in this case it would require that we dismiss three key statements in Wesel's account regarding the St Albans road or conclude he mixed up it up with the Hatfield road.

If we are to adequately assess the potential of these sites then ideally we need some indication as to the likely length of the frontage of the Lancastrian army, as they chose the ground and deployed first, to determine if the site is either too narrow or indeed too wide (hence lacking flank protection) to enable effective deployment. The frontage will have been determined by the number of troops in the army and the tactical formations used, including the numbers mounted as opposed to fighting on foot – cavalry took up about 5 foot per man whereas those on foot require only 1.5ft.[126] As far as tactical deployments are concerned, we know that both armies were in three battles, with the vanguard on the right, the rearguard on the left, and main battle in the centre, following normal tactical principles of the period. What we lack is detail from sources of the period is the exact form and depth of deployment to expect within each battle or indeed in the spacing between the battles. While one might point to Vergil's reference to Edward's army marching north from London in square formation he is writing in the earlier 16th century when this specific form of deployment represents a significant component of the new, renaissance tactics, thus for Barnet it is probably an anachronism added like various other dubious details by Virgil to his account of the battle.

If Warwick deployed behind a hedge, as the Arrival claims, then it is unlikely that any of his troops will have been mounted unless held back as a reserve. Indeed the accounts would seem to indicate a battle fought on foot, as seems to be true of most battles of the Wars of the Roses. There is just one dubious reference by Hall to Warwick's use of light cavalry late in the battle which might indicate a mounted reserve. While it is also said that Edward kept a small reserve there is no indication that this was mounted. The calculation of the frontage should therefore be given for an infantry formation. Unfortunately the numbers quoted by primary sources for medieval battles are often grossly inflated and can vary dramatically for each side according to the allegiance of the author. Thus for Barnet we find the Yorkists numbered at 9000 in the Arrival (copied by Waurin) and 8000 in Warkworth, who give the Lancastrians 30,000 and 20,000 respectively. In contrast according to Wesel the Yorkists numbered 20,000. At best therefore we can only attempt very vague calculations of minimum requirements. For example 10,000 foot deployed 10 deep at close order would occupy a frontage of 1500ft (450m), to which one must at the very least add the spacings between the three battles. The uncertainties are at present too great to enable this to be applied to any useful effect.

An alternative approach would be to look at other battlefields of the period where there is some indication as to the extent of the frontage from battle archaeology and/or from constricted terrain. The best evidence comes Towton where the exact site and the location and orientation of the two arrays is confirmed by a combination of extensive battle archaeology and by physical topography. The latter also presents highly constricted terrain –

[126] *Vegetius: Epitome of Military Science*, ed. N.P. Milner, 2nd edn, 1996; repeated by various early modern military manuals and discussed in Foard, 1995, *Naseby*, 251-2.

as steep scarp on one side and a boggy area at the other – enabling a maximum likely frontage for at least the Lancastrian army to be estimated. While the battle archaeology suggests a frontage of at least 700m, when the terrain is considered there is the potential for a circa 1100m frontage if cavalry were deployed on the left wing, as the latter might be expected to produce little or no battle archaeology.[127] At Bosworth the evidence is far more equivocal. While the location is secure and the approach of the two armies open to only limited dispute the exact position of deployments and a meaningful frontage measurement cannot be suggested with confidence. This is due to the sparse nature of the artefact scatter, the lack of a comparative round shot scatter from any other battlefield to enable its better interpretation, and the lack of securely defined terrain features constricting the ground. No other battlefield of the period is adequately understood to be able to provide comparative evidence.

The London to St Albans road north of Barnet runs essentially in a north-north-westerly direction and Wesel has the armies on either side of the road. However the Arrival specifies an east-west alignment for the battle arrays, with the Yorkist right beyond the Lancastrian left and vice versa. There is only one place within two miles of Barnet where the road takes an east-west direction. This is on Dancers Hill, where it runs along the ridge for 380m, with the alignment continued both east and west by a lane thus potentially enabling a much wider array. Here the armies could deploy east west and on either side of the major road and with Warwick's guns set along the road and facing towards Barnet. By the 17th century the road here was hedged on both sides. If a hedged already bounded the road on the north side in 1471 then this could accord with the Arrival's reference to Warwick deploying behind a hedge. There is also a suggestion that in the medieval period the land south of Dancers Hill to the west of the St Albans road was still unenclosed. Equally problematic is the as yet undefined extent of Kicks End Heath, which could perhaps extend down into the Margery Mead valley on the east side of the St Albans road. These uncertainties over open versus enclosed land are a major issue which warrants further detailed documentary research. Further support of this location for the battle is provided by the land sloping gently southward into Margery Mead, which would accord with Edward's position in a hollow, while the broad area and very flat ground in the valley bottom on the western side might well represent Wesel's hollow with marshy ground, though again more documentary research is needed to seek evidence here for marshy ground.

The main problem with this location is that it lies 1.9 miles (3100m) north of Barnet, stretching considerably even the mile quoted by Wesel and the London Chronicle. In addition we know that the land on the east side of the St Albans road as it descends into and climbs out of Margery Mead was in large part already enclosed by 1471, thus making it difficult though perhaps not impossible for the Yorkists right to have deployed further east than the Lancastrians. The other problems are that Dancers Hill lies 1250m from the apparent site of the battle chapel, which the London Chronicle says was built on the plain where the battle was fought and the dead were buried; and the hill is a long way from the edge of Enfield Chase, which Rastel seems to indicate the battlefield adjoined or extended onto.

[127] Foard & Morris 2012, 89.

The southernmost option for the battlefield is Hadley Green, which as we have seen was the favoured location from the mid 19th to the late 20th century. Its northern edge lies a little over half a mile from Barnet, so might accord with the Arrival's description of the distance of Warwick's array from the town, though it is well short of the mile given by Wesel and the London Chronicle. Deployed on its northern edge Warwick would also be on the far side of a 'green plot' and adjacent to the St Albans road, as described by von Wesel. But as far as the other topographical details are concerned Hadley Green is problematic. The St Albans road runs almost exactly north-south across the Green, with no opportunity for the armies to deploy on opposite sides of the road, as Wesel says, if they were to be in an east-west array as specified by the Arrival. Nor is there any location that would allow Edward's array to lie wholly or at least partly in a hollow and marshy ground, because the slope on the east of the Green is far too steep and long for Edward's deployment to have extended there into a marshy hollow. Moreover the village of Hadley Green, including the church which was certainly there by 1471 would have protected the Lancastrian left wing, while tenements running southwards on the east side of the Green, if they existed in 1471, would have increasingly constricts the space southward, and if they were not there at the time the slope behind them achieves the same effect. So this ground provides no context within which a Yorkist deployment could overwing the eastern end of a Lancastrian array, unless Warwick deployed mainly beyond the Green westward, in the area of Old Fold, and the left wing did not extend to the eastern edge of the Green. While we know that Old Fold already existed at the time, it is not clear whether all the land west of the Green was already enclosed in 1471. Such a westward extension would also be required by the narrow width of Hadley Green, at just 350m. This is very narrow for the deployment of a major army especially when compared to Towton, as noted above. Then there is the problem posed by the tenements of Monken Hadley which lined the northern edge of the Green in the 18th century though we can't be sure they were there in 1471, together with the moat and the buildings of Old Fold to the west, which was certainly there at the time. While such occupation might not have been mentioned in the primary accounts, because their topographical information is so sparse, their presence would have complicated any Lancastrian deployment.

Finally there is the problem of the apparent location of the battle chapel which is much further north, in South Mimms parish. Had the battle been fought on Hadley Green then the dead would have mainly fallen in Monken Hadley, a separate parish from South Mimms since at least 1175 and it is unlikely that the bodies would have been transferred from one parish to another for burial.[128] If the battle began on Hadley Green then the only alternative would be to argue that the majority of the dead had fallen in South Mimms in the rout of the Lancastrian main and rearguard battles.

As we have seen, from the late 16th through to the mid 19th century the battle was placed in the area between Kicks End and Monken Hadley. Here was a level hilltop which would accord with the 'plain' described in most accounts, which in 1471 contained an area of open common called Kicks End Common. The St Albans road ran along its western edge while the major road to Hatfield diverged where the High Stone now stands and ran north eastward along the Common's eastern edge. Dividing it from Enfield Chase to the east was the Gannick Bank which, topped by a hedge, was the boundary of the Chase. Within the Chase

[128] VCH Middlesex.

was another broad area of open pasture but of sloping not level ground falling eastward into Monken Mead. It is on Kicks End Common, 1.2 miles (1900m) from the Barnet boundary that the putative battle chapel lies, which the London Chronicle identifies as built on the plain where the battle was fought and the dead buried.

Within this area there are three alternative locations which might fit most of the topographical details in the primary accounts. Firstly there is the that proposed by Warren, who has Warwick deployed on Kicks End Common lining the west side of the Gannick Bank facing towards Monken Mead. This identifies the hedge referred to by the Arrival as being that recorded in 1572 on the Gannick Bank which, in the area of Bentley Heath – a little to the north – is said to have been torn down during the battle.[129] Edward is then deployed in the shallow Monken Mead valley to the south east. Thus the broad green plot would be the open pasture of the western periphery of Enfield Chase, while Monken Mead is the hollow and marshy ground of Wesel – though the valley bottom here is very narrow and may not have had any significant area of marshy ground. This would put the probable site of the battle chapel immediately behind Warwick's main battle. However such a deployment demands that Wesel mistook the Hatfield road for the St Albans road in two of his three references to a major road. It also places Edward's left wing and main battle within the Chase, not just outside it as Rastell seems to indicate. The battle arrays would also be closer to a north-south than the east-west orientation in the Arrivall, while Barnet and the road to London would be on the left flank not behind the Yorkist left and so when they were overwinged and routed their flight would be more likely eastward than south towards Barnet and London. Such a deployment would also have made Warwick's right flank very vulnerable to an attack along the St Albans road, which here runs through an area of open common as much as 100m wide. It could be argued that Wesel's description of the Lancastrian guns positioned up the road towards Barnet might mean that they were set here to protect a vulnerable flank in the direction from which Edward would approach. However this would be a very dangerous way in which to deploy, to have your right flank facing the enemy approach along a major road. Neither would this make sense in terms of the artillery fire overnight or in the morning.

The second option at Kicks End lies on the western side of the Common. Here on the west of the St Albans road a very shallow valley runs north westward into Margery Bottom, the latter as noted above being very broad, low lying and flat and thus possibly marshy. Here the two armies could be on either side of the road with Warwick in the enclosures of Kicks End beside the St Albans road, with about 450m between the two armies. The arrays would be oriented roughly west northwest, so perhaps just compatible with the east-west description of the Arrival. The right flank of the Yorkist array could then be anchored on the Chase boundary and this might enable it to overwing the Lancastrian left. The putative battle chapel is also in an appropriate location. However, while we know that Kicks End Common was open, we do not know whether the land to the west of the Albans road was still open in 1471 as no early documentary sources have yet been identified for this area.

A third option may provide the best fit for the topographical details in the primary accounts and is the simplest. It would place Warwick's array east-west, set behind the boundary on the northern edge of Kicks End Common. The most significant problem here is the fact that the

[129] Warren, 'Reappraisal of the Battle of Barnet 1471'. pp.20 & 26.

houses in Kicks End, wherever exactly they lay in 1471, might have confused the Lancastrian deployment. The other concern here is that it allows for Warwick to have a frontage of only about 650m which is somewhat less than at Towton, although that is usually considered the largest battle of the Wars, so this may be perfectly adequate for Warwick's array if wholly on foot.

With this deployment one might interpret the references to artillery down the road to Barnet referring to practice defined in Machiavelli's manual of 1521: with the guns on either end of the frontage facing down both the Hatfield and the St Albans roads towards Barnet. Thus the artillery could cover the two locations most vulnerable to cavalry attack or to flanking moves, yet also enabling enfiladed fire across the whole of an advancing enemy battle array. If the enclosures that existed in the 17th and 18th century (other than the battle chapel) had existed in 1471 then these guns would have had hedges to both right and left as additional protection. The apparent site of the chapel would also lie in the general area of the fierce action described in the Arrival, where the Yorkist main battle engaged. Edward would have deployed immediately to the north of Monken Hadley on the opposite side of the Common, which would be Wesel's broad green plot. The Yorkists would be deployed straddling the St Albans road but with the right wing extending down into the end of Monken Mead, thus partly set in a hollow, though there is no reason to believe this was marshy. On the west side of the St Albans road the Yorkist left would be on the opposite side of the St Albans road to the Lancastrians. Thus while the Yorkist right would lie within the Chase and thus able to overwing the Lancastrian left, the main battle and left wing would be immediately outside the Chase, and thus in accord with Rastell's description. The key objection to such a deployment would be if the Gannick bank was still a substantial feature topped by a hedge as this would have severely obstructed any attack by the Yorkist right wing.

One final but more problematic option that needs to be considered is Bentley Heath because, as we have seen, in 1693 it was claimed that part of the pale of Enfield Chase, 'against Bentley Heath has been pulled down at the Battle between Edward IV and Henry IV, so that the armies might better join battle'.[130] Although reported more than 200 years after the battle and thus probably a spurious association, it could represent a genuine folk memory linked to a significant feature in the landscape. The character of the historic landscape here is not unlike that of Kicks End and would enable a similar form of deployment and action so meeting most of the topographical clues in the primary accounts. It is also true that the valley extending from here into Monken Mead is known as Deadman's Bottom, though this name could have an origin unrelated to the battle.[131] The problems with this location are that it requires Wesel to have confused the Hatfield for the St Albans road; its northern edge is two miles from Barnet, thus Warwick's deployment would be much further than the mile which is the maximum quoted in any account; and the putative battle chapel is some 700m to the south.

[130] Warren, 'Reappraisal of the Battle of Barnet 1471'. p.26.
[131] Two mid-seventeenth century maps mark 'Deadman's Bottom' within South Mimms Common on the Chase. The name is still shown on the modern OS Explorer map, though all three maps give slightly different locations. NA: MPC 1/146; MPC 1/50/1.

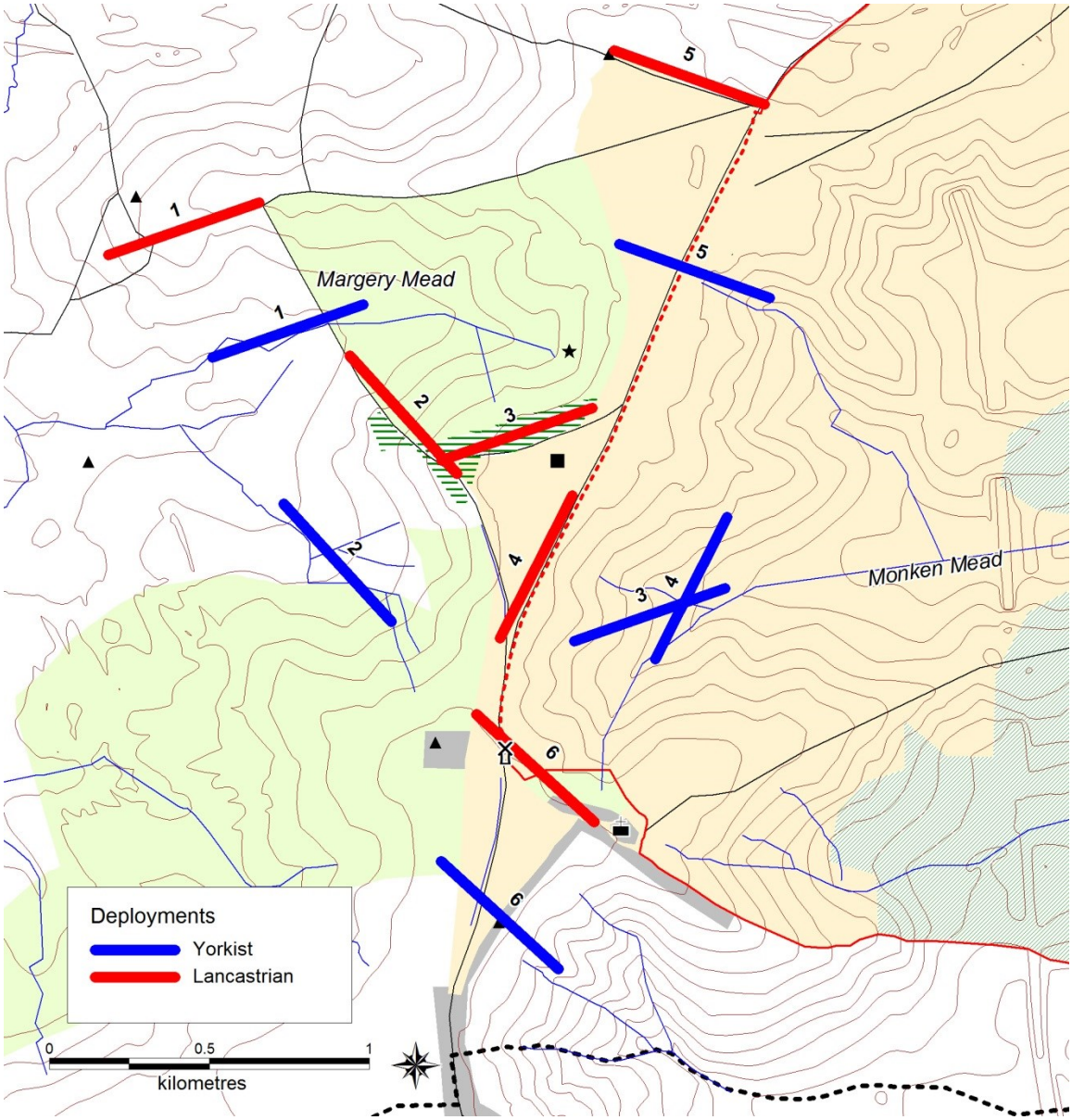

Figure 36: The many possible troop deployments considered in our analysis, shown on a background of historic land use, road network and principal settlements plus the underlying relief and drainage from OS Mastermap amended using data from OS first edition 6 inch mapping.

It is clear that no single interpretation within the historic terrain north of Barnet, as we currently understand it, can accommodate all the topographical details of the primary accounts. The preceding analysis of the battle accounts and the historic terrain provide two main zones to be tested for physical evidence of the action: the Margery Mead valley extending up to Dancers Hill (figure 36 option 1); and a southern variant of this encompassing the small southern side valley of Margery Mead (option 2). The lack of good historic landscape documentation so far for this whole area poses a major problem. The second location is the Monken Mead valley extending up onto Kicks End Common (options 3 & 4) and a little to the north of this the variant extending up onto Bentley Heath (option 5). Finally there is the currently registered battlefield site, focussed on Hadley Green (option 6) which our analysis has suggested is perhaps the least likely but not to be completely dismissed at this stage.

While all the evidence so far marshalled here provides a secure base upon which further work can proceed, as at Bosworth the answer it would seem can only come from the recovery of securely located physical evidence from the action.

5. Battle archaeology

The archaeology of the battle and its aftermath is likely to comprise two types of evidence: unstratified artefacts, mainly of metal, deposited during the action and then in the subsequent hours and days as the field was cleared; and burials, mainly in mass graves on the field but with at least a few of the higher status dead buried in consecrated ground in important churches, sometimes at a great distance. While a few of the high status dead from Barnet are known to have been buried in London churches, there has been no discovery of human remains reported from the Barnet area which can be securely linked to the battle. Based on the evidence of the London Chronicle these graves should initially be sought in proximity to the battle chapel. The physical evidence for the putative site of the chantry chapel, said to have been subsequently constructed on the battlefield where prayers were to be said for the souls of the dead, is not strictly battle archaeology and so has already been discussed above with other aspects of the historic landscape. It is in effect just the earliest of the commemorative features, followed in the 18th century by the High Stone monument to the battle, also previously discussed.

Until 2009 the artefactual signature of a Wars of the Roses battlefields was expected to be similar to that revealed at Towton, which over the last two decades yielded thousands of battle-related artefacts mainly of non-ferrous metals. These include a small number of weapon fragments but mainly consist of fittings from personal equipment and horse furniture, a high proportion of which are of high quality. It seems likely that these objects are present in such number not simply because so many troops were engaged, or even because it was such a hard fought action. It is more likely to be because an exceptional proportion of the nobility fought at Towton and especially that many of them died on the field. It is they, not the common soldiers, who would have had large numbers of non-ferrous metal fitments on their clothes and equipment. In contrast, in 2009-10 the survey on Bosworth battlefield produced only a very small number of such artefacts. This may be not simply because it appears to have been a smaller, shorter and less hard fought battle, but probably most of all because far fewer individuals of high status were engaged and only a small number of them were killed on the field. The very sparse groupings of high status artefacts seen in the survey might represent the locations where those individuals fell in action. Barnet was probably more like Bosworth in the balance of high to low status casualties (though this is an issue worthy of further study) and so a similarly low number of non-projectile artefacts might be expected.

The other exceptional aspect of the Towton assemblage is the large number of ferrous arrowheads recovered from across the centre of the action. It is the only British battlefield to have so far produced such a scatter. The exceptional preservation there was almost certainly promoted by a high soil pH and by subsequent burial either in the mass graves or beneath later topsoil due to colluviation in the bottom of the shallow Towton Dale.

We know from Wesel that thousands of broken arrows still lay on the field days after the battle. These arrows, presumably broken as action moved across the ground in which they had embedded, will have produced an important archaeological signature. Such a scatter would represent crucial evidence, for they had a range of under 300m and most will probably have been loosed as the two armies closed, in an attempt to break the enemy formation, so they would normally lie close to the initial clash. However, because battle-related artefacts will normally have remained in the topsoil since the action, after more than five centuries arrowheads would not normally survive because topsoil, especially when cultivated, is a highly corrosive environment for ferrous metals. There is no reason to think that soil conditions at Barnet will have been conducive to their preservation given that the higher ground has a sandy loam soil overlying sand and gravel geology. It is possible that the soil in the valleys, clayey to silty loam overlying silt and sand geology, will have been less aggressive. If and when the battlefield is located using the evidence of non-ferrous artefacts then analysis of soil chemistry should be undertaken to assess the potential in that area for ferrous survival to determine whether intensive all-metal survey in key areas is likely to yield ferrous artefacts from the battle.[132] It is not worthwhile undertaking such analysis now because to carry out all-metal survey intensively on a wide survey area is so time consuming that it is simply not a practical reconnaissance strategy when attempting to locate a battlefield.

Figure 37: A solid lead round shot from Northampton battlefield found by chance from an undetermined location within the land on Delapre Abbey Farm (in the possession of Mrs Clifford of Delapre Abbey Farm). It shows clear firing evidence on the lower side of this face and massive impact damage on the opposite side. This is likely to be from the 1460 battlefield but it could just possibly be a round fired from the defences of the town during the Civil War. ©Glenn Foard

In contrast to Towton, what dominates the sparse Bosworth assemblage, indeed made the very identification of the battlefield possible, are more than 40 lead and lead composite round shot which showed evidence of firing from gunpowder artillery. The small number of other non-ferrous battle-related finds were clearly associated with this round shot distribution.[133] Northampton (1460) and Barnet have each produced three lead round shot and St Albans II (1461) has produced one (figure 37).[134] This suggests that the other battlefields of the Wars of the Roses may contain assemblages of artillery rounds similar to that seen at Bosworth.

[132] British Geological Survey soil information from MySoil and iGeology apps accessed 7/07/2020.
[133] Foard & Curry 2013, 190.
[134] We have examined one solid lead round from Northampton which showed firing evidence (figure 37). The other two have been lost, one which was deposited with Northampton Museum and the other by the finder, so their identification as round shot cannot be confirmed.

Certainly the documentary record for the equipping of armies and the primary accounts of the battles suggest substantial use of gunpowder artillery, though minimal use of handguns on English battlefields of the period.[135]

Primary accounts for Barnet imply that large numbers of round-shot were fired both overnight, mainly but not solely by the Lancastrians, and then by both sides the next morning at the beginning of the battle. So one might expect large numbers of lead and lead composite round shot to have been deposited on the battlefield. The problem with this expectation is the apparent absence of all but two very small calibre rounds from Towton, despite the intensive metal detecting over many years across a large area centred on the main action. This paucity is an aspect of the Towton evidence that has yet to be adequately documented or explained. Could it be because the round shot used there were mostly of iron or of stone? This seems unlikely, given the lead and lead composite rounds that have come from Northampton (fought in 1460, the year before Towton), St Albans and Barnet, as well as from Bosworth. The documentary records for artillery of the period in England also suggests this was the normal munition for battlefield artillery.[136] While wrought iron round shot was used in the period it was probably not common and then mainly used in the larger bore siege pieces rather than the smaller bore field artillery used in battles. Cast iron rounds are more problematic. They appear for the first time in Burgundian army records in about 1470, so they would not have been used at Towton. It is technically possible that they were employed at Barnet, though this seems unlikely given that they only appear in number in English records in the 1480s. Stone roundshot may also have been used, though the documentary record suggests that these were normally supplied for larger siege pieces, a picture repeated with the larger guns on the Mary Rose in the mid 16th century.[137]

There is one other class of projectile that may have been used in artillery pieces, especially the larger guns in an army which stood to receive an attack. That is hailshot which, though its range was very short, when fired at close quarters spread widely and with one firing could kill or wound large numbers of troops, thus breaking an enemy formation far more effectively than round shot and just as they came to close quarters. There is however no clear record of such a munition being employed during in the Wars of the Roses. If it was already in use at this time by English armies, hailshot might have comprised small calibre lead balls, as most often used during the 17th century, or perhaps more likely simply small stones or irregular fragments of iron, both of which are mentioned in connection with 16th century battles and are seen on the Mary Rose.

So there is a worrying possibility. If on most battlefields of the Wars of the Roses the round shot evidence is as rare as at Towton while all other artefacts are as rare as at Bosworth, then the archaeological signature may be so sparse that most of the sites might prove almost impossible to locate using the physical evidence.

The degree to which the archaeological evidence is recoverable will depend upon the composition of the projectiles. If the majority were indeed of lead or lead composite, which are easily recovered in a metal detecting survey, then the signature will be substantial and

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[135] Spencer, 2019; Foard & Curry 2013, 139-146.
[136] The issues summarised here are discussed in detail in Foard & Curry 2013, ch.6.
[137] Spencer, 2019; A. Hildred (ed.), 2011, *Weapons of Warre: The Armaments of the Mary Rose*, 2 vols.

would be retrieved using the survey methodology which was applied to good effect at Bosworth. If many were of iron then they would be expected to corrode but ought to survive as recognizable artefacts in all but the most aggressive soil conditions. However, even if iron rounds are present they are unlikely to have been recovered in our Barnet survey as it had to be undertaken in non-ferrous mode in order to enable sufficiently large scale coverage. This is because of the presence of large quantities of modern and early modern ferrous junk in most fields in England, which renders detecting in all-metal mode impractical for this type of reconnaissance survey, as already demonstrated at Bosworth. As far as hailshot is concerned, if it was used and if it comprised lead projectiles, then it would have been recovered in our survey and be clearly recognizable from the distortion of the bullet surface caused during firing.[138] It will not have been found if it comprised iron fragments as these would have become highly corroded and not easily recognizable as projectiles, and anyway would not normally be recovered in our non-ferrous survey. If stone hailshot was used there is currently no effective survey methodology for their recovery, especially as the flint or stone fragments are unlikely to be distinguishable from those naturally occurring in the soil. Likewise stone round shot are unlikely to have been recovered. While it is theoretically practical to recover these by fieldwalking survey of arable land, only a small proportion of the shot in the soil would be present at the surface in ploughed fields and thus visible for recovery by eye – only one of the 45 lead or lead composite round shot from survey at Bosworth was found on the surface by eye before it was identified with the detector, even though most of the fields there were under arable when detected. All the rest when recovered were buried to a greater or lesser depth within the topsoil and so not visible. At Barnet most of the survey area was under pasture

One issue that makes the battle at Barnet unusual, and potentially of exceptional archaeological value if it can be located, is the presence in the Yorkist army of hundreds of Flemish handgunners. The only other battlefield of the Wars of the Roses where they are documented in large number is St Albans II (1461). There the early type of handgun, the handcannon, was used in a defensive formation behind protective shields called pavises and also protected by scatters of caltrops which were intended to disable cavalry.[139] The latter was a ferrous artefact which might also survive on a battlefield with preservation conditions similar to Towton, but unfortunately St Albans II battlefield has largely been destroyed by quarrying and urban development. It is possible that, in contrast to St Albans II, the mercenary handgunners at Barnet were using the very new and more effective shoulder firing guns, which were being supplied to the Burgundian army at this time. They were designed to fire a much smaller calibre bullet than the handcannon. The documentary record indicates that the new handguns will almost certainly have fired lead bullets which are easily recoverable in a detecting survey.[140] Finding these bullets would be valuable for the study of early battlefield use of handguns, because no European battlefield of the later 15th century has yet produced large scale archaeological evidence for the use of handguns. Recovery of such evidence from Barnet would reveal the calibre of the projectiles and allow them to be recognized, if they exist, on other battlefields of the period. But the distribution of these

[138] Foard 2012, 83-92.
[139] '*Gregory's Chronicle*', in *The Historical Collections of a London Citizen in the Fifteenth Century*, ed. J. Gairdner, Camden Society, 1876, 213–4.
[140] Spencer, 2019, 247.

bullets could also have a wider importance. If the handgunners were used in a complementary way to the archers, as they were when the English finally began to integrate them fully into their field armies in the first half of the 16th century, then the distribution of bullets may assist in understanding exactly how all shot, including archers, were deployed on late medieval battlefields.

If the handguns used at Barnet in 1471 were the early handcannon, which generally fired a bullet of distinctively larger calibre than later medieval and early modern handguns, then these projectiles would be easily distinguished from later bullets. However, if they were the new handguns then the bullets are likely to be within a similar range of calibre to those used in later centuries in sporting guns and smaller calibre military weapons. In which case distinguishing a medieval battlefield handgun signature from later sporting or military activity may prove very difficult, demanding sophisticated analysis of variations in the distribution of bullet calibre across the wider landscape compared to the core of the battlefield. At Bosworth such analysis suggested that handguns were not in large scale use on that battlefield.

While the highest density of archaeological evidence is likely to come from the area where the two armies first clashed, it is also possible that some finds may lie anywhere in an area extending several kilometres from the main action. Within a kilometre or so this might reflect the final resting place of artillery rounds which overshot their intended target, but southward could also include other objects lost where Hastings' rearguard was routed by Oxford's vanguard, as well as in the apparent attack by the latter on the Yorkist baggage train. To the north it may include action during the rout of the whole Lancastrian army. There is also the possibility, if Warkworth's claim is correct, that Warwick himself was killed in flight, though another source places his death and that of his brother on the battlefield. To find the archaeological evidence of action from a rout, except by chance, will be almost impossible because it is likely consist of discrete scatters very widely separated. The only way to focus a search might be by testing local traditions, such as that discussed above which links some fighting in the Lancastrian rout to the site of the obelisk that stood in the former Rabley Park, about 6 kilometres from Kitt's End.

5.1 Previous archaeological evidence

To date very few antiquarian reports of finds from Barnet battlefield have been identified. These together with more recent reports were collated in the 2000s by HADAS and the Battlefields Trust. Their database has been updated and mapped in the current project and is included in the project archive. The earliest report is that the landlord of the Red Cow tavern, which stood near the High Stone, had dug up a 1.5 lb (680g) ball. This had been first reported in 1743 and later repeated by Hutton, though it is nowhere specified whether the projectile was of lead, iron or stone, nor do the reports make clear if it was found in the pub grounds

but that has been assumed in our mapping.[141] A local informant of Brooke in 1856 confirmed that finds had been made previously but said that recently no battle finds had been made.[142]

There have been at least ten other items reported as 'cannonballs' from the battle. It has been established from the original reports, our examination of those now held by Barnet Museum, and of photographs of one found in the grounds of Mount House and now held by the Honourable Artillery Company at Armoury House, that two were of stone and at least five ferrous. For mapping purposes the rest have been identified as probably ferrous. There are just four items, all found in the last few decades, which are known to have been of lead. We have also mapped the various reports of arms, armour and other 'relics'. We have not shown clearly spurious reports such as the mounds at Totteridge House, said to be graves from the battle, or the reports of horseshoes and bones, or of single or small groups of small calibre lead bullets. Other finds, including several of the 'cannonballs', have no reported provenance and so could not be mapped.

Of the stone and ferrous 'cannonballs' for which find spots have been recorded, almost all come from Hadley Green and its immediate environs. So too do most of the reports of armour and other 'relics', including a spur from the site of the High Stone. The current location of these other finds has not been established and so it is impossible to determine whether a genuine link to the battle is possible. In the case of the iron round shot in Barnet museum several are of cast iron and thus, as we have seen, are unlikely to relate to the battle. Not all are even round shot – at least one was shown to be a lady's shot put, from faint lettering on the ball!

[141] W. Hutton, *The Battle of Bosworth Field,* 1788, xxxv; *Gentleman's Magazine* vol.13, 429.
[142] Brooke 1857, 211, n.1.

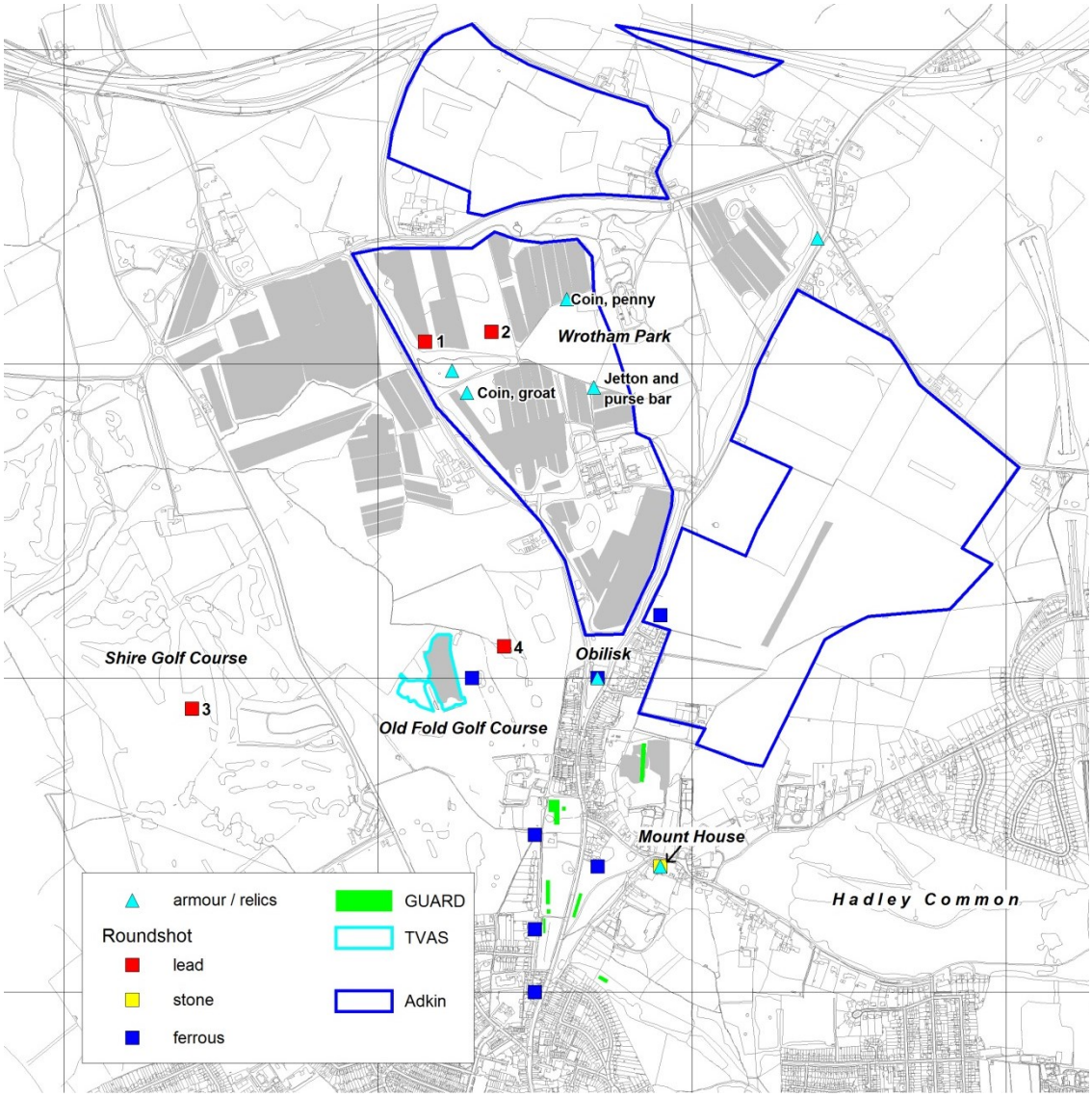

Figure 38: Previous finds and related investigation areas compared to the areas detected in the current project (shown in grey).[143] *Four late medieval finds from Adkin are named. On an OS Mastermap base © Crown copyright and database rights 2020 Ordnance Survey 100025252*

The most significant but problematic antiquarian report is that from 1851 noting ferrous arrowheads from Barnet battlefield. They were bought on behalf of the British Museum by John Doubleday, who acted for the museum in various acquisitions in the 19th century. The original acquisitions register entry reads 'Purchased by Mr J Doubleday' and states 'These were all found on the battle-field at Barnet.' The 'by' suggests that Doubleday was acting on behalf of the museum as an agent rather than the museum purchasing directly from him. There are no further references to the arrowheads in the department records nor is there any recorded report on the acquisition to the Board of Trustees. Neither can an obvious link be drawn from the date to any of the reports of finds from known locations in the Barnet area in

[143] Previous finds principally from the database compiled by HADAS/Battlefields Trust circa 2006 with additions and corrections from data collected in this project. GUARD detecting area from Pollard and Oliver 2002; TVAS detecting area from Anne-Michelle Huvig and Pierre-Damian Manisse, 2018, *Old Fold Manor Golf Club, Old Fold Lane, Hadley Green,London Borough of Barnet: Metal Detecting Survey,* unpublished report for Thames Valley Archaeological Services.

the 19th century. It is possible that the arrowheads were displayed or discussed at one of the London antiquarian societies around this time, where further information might be forthcoming, but no such report has been found during a search of the Antiquaries Journal, JBAA or the RAI undertaken for us by staff at the Society of Antiquaries.[144] The artefacts still survive in the museum collection and examination of images of them suggests they are of similar form to those recovered from Towton battlefield and thus likely to be genuine battle-related finds from Barnet. If information on their provenance could be identified then a specialist analysis of the arrowheads should be undertaken as they could assist in locating the battlefield, and they would be the only substantial battlefield assemblage so far available for comparison with those from Towton.

Of the various reported finds there are four others, all found within the last twenty years, which are likely to be battle-related, though there is some uncertainty as to exactly where they were recovered. The metal detectorist David Adkin, who worked across a large part of the Wrotham Park estate in the 2000s, recovered two solid lead round shot. One weighs 538g and has a diameter of 46mm; the second weighs 362g and is 40mm in diameter. They were originally identified in the database of the Portable Antiquities Scheme as being from the 17th or 18th century. To further complicate matters, the location originally quoted there was at odds with that given to the Hendon and District Archaeological Society by the finder.[145] Subsequently the location reported to HADAS has been broadly confirmed in discussion between Sam Wilson and Adkin. Discussion with the PAS officer who examined the finds suggests this was an error of recording on the database not of reporting by the detectorist.[146] They are mapped here to the field in the north west corner of the Park, as indicated by Adkin to Wilson. Adkin recovered several other 15th century finds from the Park, including a Burgundian jetton circa 1430-98, a silver penny of Henry V, silver groat of Edward IV (1467-8), and medieval purse bar, any or all of which could have been deposited during the battle (figure 38). These finds, together with the two round shot, are now in Barnet Museum. We have also analysed a large number of small calibre lead bullets which he collected, that came from various unrecorded locations across the Park. Another detectorist deposited with the museum a collection of lead bullets said to have been recovered from Hadley Common. These are all discussed below alongside the bullets recovered in our survey.[147]

A third lead round shot recorded from the Barnet area, of 347g and 38-41mm in diameter, was recovered by John Heathfield from a spoilheap during earth moving and landscaping within the Shire Golf Course in about 1990. The object was briefly acquired by Barnet Museum to enable us to examine and photograph it.[148] A specific location was never given for the find because it was not in situ but recovered from a spoilheap, so it is mapped here simply to the centre of that golf course.

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[144] Pers Comm. Naomi Speakman, Curator Late Medieval Europe, British Museum. M Westgarth, 2009, Biographical Dictionary of Nineteenth Century Antique and Curioisity Dealers. Pers Comm. Librarian, Society of Antiquaries.
[145] A Coulston pers com.
[146] Julian Watters, formerly PAS Officer for Hertfordshire, pers com.
[147] Foard 2006.
[148] Originally noted by HADAS as being from the Bridgefield Golf Course but later confirmed by Heathfield to Barnet Museum as being from a spoil heap from landscaping on the Shire Golf Course.

A possible fourth lead round shot, of 435g and 48mm, was brought to the PAS by Brian Warren who reported it as having been found by 'Keith' at TQ240981, which is just north of Old Fold Manor golf course. It was initially identified as a steelyard weight but it was missing any trace of the iron loop which is typically seen on large lead weights. Watters, then the PAS officer for Hertfordshire, revised his interpretation to probably a lead round shot after he examined with us several lead round shot found on other battlefields, including one from St Albans II which was temporarily at St Albans museum and which we demonstrated showed clear evidence of having been fired.[149] While the other three artefacts were all examined by G Foard and confirmed as solid lead round shot, re-examination of the fourth Barnet object, other than from the online images on the PAS database, was not possible as the artefact had been returned to the finder who could no longer be contacted.

It is technically possible that these are of Civil War date as lead round shot was then still in use. They were usually supplied for a falcon (firing a c.67mm round shot) or smaller artillery piece, though there is at least one example of moulds for lead ball for use in a gun as large as a culverin (firing a c.127mm round shot).[150] It is also true that a powder box cap and two slugs and part of a sword hanger, all possibly indicative of mid 17th century military activity, were found in our survey on Dancers Hill (figure 46). These could come from a Civil War skirmish but, as discussed below, this is unlikely in the absence of the substantial scatter of musket calibre bullets one might expect if such action was of sufficient size and character to have included use of small bore artillery pieces. Neither have we identified any documentary record of military action or training of that period around Barnet. Civil War armies and supply trains did regularly march through Barnet, because it was on such a major road close to the capital, and occasionally troops may have quartered nearby.[151] So it is conceivable that one or more lead round shot could have been accidentally lost at this time. It must also be noted that probable lead round shot are occasionally found in apparently random locations far from any battlefield but where the source is not understood. For example one was reported by a detectorist on the Barnet survey team as having been found near Welham Green, which is 7km to the north of Kitts End. This round showed evidence of having probably been fired, though only images were examined not the original object. Given the location it clearly does not relate directly to the Barnet battle. A similar situation occurred at Bosworth where a round shot was found 6 km away, though in this case it was in very poor condition so impossible to determine if it had been fired. What is important at Barnet is that three or four round shot, discussed above, have been found within one or two kilometres of each other, which makes the explanation of accidental loss far less likely. It is unfortunate that they are not in good enough condition to be certain whether or not they have been fired but, despite this, an association of the four rounds with the 1471 battle is by far the most likely explanation.

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[149] https://finds.org.uk/database/artefacts/record/id/389965, Find BH-E807D2; Email from Julian Watters to Sam Wilson, 1/02/2016.

[150] Simon Marsh pers com.

[151] Thanks to Simon Marsh for several example including: 'carts laden with powder, match and shot and other military provisions for Essex's army were sent to Barnet on 5 November, but returned to London the same day before heading out to Windsor.' Thomason Tracts E242(10) *England's Memorable Accidents* 7- 14 November 1642, p.73.

5.2 The battlefield survey 2015-18

A proposal for archaeological investigation to locate Barnet battlefield was first developed in 2006 in a collaboration between the Battlefields Trust and the Hendon and District Archaeological Society. The idea originated when, after two seasons of detecting at Bosworth had failed to recover firm evidence of the battle, we sought to reassess our methodology through small scale fieldwork on other early battlefields, including Shrewsbury (1403), Barnet, and Flodden (1513). Members of our highly experienced survey team then working on Edgehill battlefield were brought to Wrotham Park to the field containing the putative battle chapel. We undertook a single day of detecting in 2006 on 10m transects but recovered no battle-related finds (figure 41). This work was intended as a pilot for a large scale archaeological metal detecting survey by the local group but this never went ahead and they are now unable to locate the finds from the 2006 survey day. However, they did undertake follow-up work to bring together data on artefacts which had been previously found in the Barnet area. This evidence has been drawn upon in the preceding discussion.

Subsequently the Battlefields Trust promoted a survey of the battlefield, with a range of local support led most effectively from Barnet Museum by the late Gillian Gear. This finally resulted in a bid to the Heritage Lottery Fund for a major community based project of investigation, interpretation and conservation of the battlefield. This proposal was rejected by HLF because they said it was too research oriented, showing their complete failure to grasp the importance of locating the battle if there was to be effective conservation and interpretation, nor did they understand the methodology needed to achieve this understanding. Undeterred by the setback Gillian Gear continued to promote the survey and finally secured separate funding for the archaeological investigation from the local Hadley Trust. It is with their support that in 2015-18 we undertook the investigation under the auspices of the University of Huddersfield, with the assistance of Barnet Museum. The principal phase of fieldwork was completed over 12 months in 2015-16 under the supervision of Sam Wilson for the University. While the HLF did finally fund a community based project to interpret and conserve the battlefield, which was originally designed to run in parallel with the Hadley Trust funded project, the inordinate delays for redesign that HLF required meant that our main programme of fieldwork was over before the community project even began! As a result neither project achieved as much as they could have in collaboration, though the follow-up test pitting of the probable chapel site, discussed above, was undertaken by the HLF project team during the final stages of our survey project.

The survey was undertaken by metal detecting systematically on 2.5m spaced transects, following the method fully described for the Bosworth survey.[152] The only exception was a small area close to Monken Hadley village where detecting followed a random method because the density of trees made systematic survey impractical. Detecting on 2.5m transects had been demonstrated at Bosworth as the lowest intensity still adequate to locate and then map the scatter of lead and lead composite round shot which, as we have seen, is expected to be the principal archaeological signature of the battle of Barnet. If a round shot scatter comparable to that from Bosworth is absent at Barnet then even more intensive survey might

[152] Foard & Curry 2013, 102-107.

be necessary to recover a recognizable scatter of other battle-related artefacts, given the very sparse distribution of non-projectile battle-related artefacts at Bosworth. The objective of our survey method is to recover a representative sample of the artefact distribution, not to attempt recovery of all the battle-related round shot or other finds. Re-survey on part of the Bosworth scatter by Gethin in 2018, in advance of the excavation of a wetland habitat for migrating birds, has confirmed that areas surveyed at 2.5m spacing are still likely to yield additional artillery rounds and other artefacts. While the survey conditions for that specific area in our original 2010 survey were recorded as poor, such conditions do not wholly explain the additional finds in 2018. Indeed Gethin recovered yet more round shot during machining there as they created the wetland scoops, even after his 2.5m resurvey.[153] However such resurvey does not always yield more finds. In 2018-19 members of the original Bosworth survey team, now working on behalf of Leicester University Archaeology on development related evaluation on the proposed extension of the MIRA site, undertook 2.5m spaced transect survey of an extensive area immediately beyond our original survey boundary at the north western end of the battlefield. This recovered one round shot. A subsequent resurvey of the same area by the team before development began failed to recover any additional round shot.[154]

At Barnet each team member on a survey day detected along individual 2.5m spaced transects. As artefacts were located the detectorist performed the first level of assessment, identifying whether the find was of potential archaeological interest, consulting the supervisor if there was any uncertainty. Finds of possible interest were then individually bagged and flagged to the spot where they were found, with the finder's initials and the date written on the bag. Anything deemed to be 'junk' was collected together in a larger bag and deposited at the end of each transect, with the transect number and finder's name written on it. At the end of each survey day the position of each of the individually bagged finds was recorded to sub-metre accuracy using GPS (Topcon GRS-1). The position of all detected transects was also recorded using GPS and these formed the basis for calculating the areas covered in a single detecting day. Each day the finds were transferred to Barnet Museum where a team of volunteers cleaned, re-bagged and catalogued the finds, photographing any which warranted detailed analysis. The data were then input into GIS for integration and analysis alongside all other project data. The final physical archive from the project has been deposited at Barnet Museum with a copy of the digital archive, but with the primary digital archive being deposited with the Archaeology Data service.

The majority of the survey work was undertaken over 12 months from November 2015. This was preceded by an initial two days in summer 2015 for training purposes, and followed by three days in autumn 2017 to fill major gaps in coverage where this was possible. These two additional phases comprised larger teams including highly experienced battlefield detectorists who had worked on the Bosworth and Edgehill surveys. During the main survey phase the team averaged five, comprising experienced detectorist volunteers supervised by Sam Wilson, the fieldwork director. Survey took place on 69 days and covering an area of 65.7ha.

[153] Bryn Gethin pers.com.
[154] Matt Beamish, pers.com.

A further 5 hectares were subject to resurvey. The re-survey of pasture field 4 is notable for the almost complete absence of additional artefacts recorded, even though both phases were undertaken in equally good ground conditions and with short grass, and the redetecting was undertaken by the experienced battlefield detectorists. In part the paucity of finds in resurvey was because, unlike arable fields, in pasture there was no cultivation between the surveys to redistribute deeper finds through the soil column. The other factor may have been that the experienced battlefield detectorists were more confident in classifying modern artefacts as junk so very little was recorded. Unfortunately consistent data on junk recovery was not maintained throughout the survey so this hypothesis cannot be tested against the project data set – a clear example of why collecting such peripheral data is important. In mapping the finds distribution the data for only one survey day have been included for any area resurveyed, so that the overall density pattern is not distorted by the extra finds recovered in the resurvey, but significant finds from resurvey have been included on other distribution maps.

In addition a small area was detected by Wilson on the Old Fold Golf Course. This was undertaken for CgMs Consulting on behalf of Old Fold Golf Course under a planning requirement in connection with a programme of landscaping. All the finds recovered on the golf course were of early modern date, including numerous golf-related objects.[155] This work followed the same methodology as the rest of our survey and so the data have been included with the battlefield survey. This same area was subject to later resurvey during earthmoving but again no significant finds were recovered.[156]

Coverage within the search area was severely restricted by factors of land use, land ownership, and contamination. Apart from the development led detecting noted above, survey was not undertaken anywhere within the Old Fold Golf Course for practical reasons. An important area immediately north of the course also proved inaccessible because, despite landowner permission, the tenant refused access. Within Wrotham Park access was allowed to all but the fields immediately abutting the Hall. Another major area left unsurveyed was the woodland due to practical survey difficulties, which are discussed below for a small sample area adjacent to Monken Hadley. The greatest problem was that the large tract of land to the south east of the Hatfield road proved to be heavily contaminated with modern metal rubbish, including such things as partially ground up circuit boards and metal fitments etc. from kitchen cabinets, accompanied by large quantities of plastics and other modern non-metal rubbish. This had all been scattered on the fields within what is claimed to be 'green waste'. Such contamination renders systematic metal detecting survey impractical for the foreseeable future as vast numbers of non-ferrous signals have to be dug, almost all of which prove to be modern rubbish. Detecting on systematic transects in this area was abandoned after a few minutes on the first day when the contamination was revealed. We then tested the extent of the contamination by a random detecting exercise with each detectorist wandering off in a different direction from the centre of this search area and reporting back on how far the rubbish extended. This showed it extended across all the arable land we examined on that

[155] Wilson, S. 2015. *Old Fold Manor Golf Club. Archaeological Metal Detector Survey*, Unpublished client report.
[156] https://www.academia.edu/36621743/Old_Fold_Manor_Golf_Club_Archaeological_Metal_Detector_Survey Accessed 8/06/2020.

side of the Hatfield road. Finally, to assess whether this contamination was consistent across the area and to determine if there was any practical way to continue systematic survey here, a series of closely spaced parallel transects, depicted as a long rectangle on figure 39 was detected by the whole team with all the non-ferrous metal rubbish being collected by each detectorist. This exercise recovered no pre-modern artefacts but the quantities of modern junk were so substantial it confirmed that large scale systematic survey of this area was impractical. In future a methodology might be developed, perhaps for example by screening out the most common types of rubbish to enable systematic survey on ground contaminated in this way, but this seems likely to prove impractical. For Barnet a method might be developed, based on careful experimentation, to enable programming the detectors with the specific signal forms for lead and lead composite round shot, established with reference to the Bosworth round shot, and then ignoring all other signals. While such an approach might be practicable if a scatter of round shot was known to exist in these fields and these were recovered occasionally during most survey days. But even then it would be very difficult to engender enough enthusiasm in a detecting team to undertake such a potentially unrewarding task. It is the potential recovery of other interesting non-battle artefacts which is one of the key factors which maintains the motivation of a detecting team for the weeks and months of survey work needed for intensive systematic survey of a late medieval battlefield, especially during the reconnaissance stage when it is probable that most of the areas being detected will prove not to be part of the battlefield.

This is not a problem restricted to Barnet. The disruptive effect upon metal detecting generally of the spreading of 'green waste' is reported, anecdotally, by several detectorists who have worked in our survey teams. Archaeological geophysicists have also reported similar interference with their instruments by green waste.[157] As yet its full implications for archaeological metal detecting survey have not been quantified. What seems clear from the Barnet experience is that if Historic England does not take significant account of the dramatic impact of the spreading of green waste on the archaeological potential of historic battlefields in its assessment of risk to nationally important battlefields, and then take effective action to avoid such damage, the potential for future systematic survey may be lost on many nationally important battlefields.

These factors resulted in an extensive tract of land within the survey area not being examined (figure 39). Within the areas which could be surveyed the detecting was, wherever possible, undertaken in good ground and crop conditions, but the agricultural regime still posed major problems. For ten of the initial twelve months detecting was limited to pasture because of the rapid turnaround in arable cultivation after harvest, given we were not permitted to detect once land had been drilled. On the arable this resulted in some detecting having to be done in unfavourable conditions such as rough plough, which can severely reduce recovery rates. Barnet has demonstrated this as a major limitation to a survey designed to be completed over a year or less with a supervisor working full time. We have overcome this problem in our other major surveys of battlefields, notably Edgehill, Bosworth and Mortimer's Cross, by undertaking work over three years or more, with the supervisor working only part time and being locally based. This also suits a volunteer team far more, working just one or at most two days a week, typically at weekends. Over such a timescale and with such flexibility over

[157] https://onlinelibrary.wiley.com/doi/abs/10.1002/arp.1503 accessed 8/6/2020.

when to detect the survey can respond rapidly and effectively to agricultural and other constraints, whether a predictable part of the agricultural regime or, as in 2019-20 at Mortimer's Cross the impossibility of survey over many months due to exceptional waterlogging in one of the wettest winters on record – problems finally compounded by the coronavirus lockdown.

Another problem of a short duration survey is the recruiting and training of an effective detecting team which can then complete the majority of the investigation in a consistent manner. At Barnet a small core team was built up that were relatively regular participants in the fieldwork, but levels of skill and experience varied significantly among the group, with further problems posed by the transient nature of the rest of the detecting team. This will all have impacted on the identification and interpretation of signals prior to digging. In the final few days of survey work the team was bolstered by experienced battlefield detectorists who had worked at Bosworth and a Polish group that had worked on the 1410 battle of Grunwald.

The effectiveness of detecting on pasture is reduced by long grass and thick sward, which limits how close the head of the detector can be brought to the soil surface, thus the depth of signal penetration and so reducing recovery rates. This problem was minimized by avoiding fields which had not been intensively grazed, and by undertaking survey in winter when grass growth slows dramatically.

The greater problem of detecting on permanent pasture is the migration of artefacts down the soil column under worm action and, without cultivation to redistribute the finds through the soil column, and thus after many decades all ending at the bottom of the topsoil. As a result all but the largest of objects, such as large lead round shot, move progressively out of range of the VLF (Very Low Frequency) detectors that are used by almost all detectorists. One way to combat this problem is the use of a PI (Pulse Induction) or ZVT (Zero Voltage Technology) detector as this enables deeper signal penetration.[158] Brief experiments with a PI detector (Minelab GPX3500) during the Barnet survey were abandoned because of its inability to discriminate-out ferrous artefacts. This causes an impractical reduction in the speed of survey as so many more ferrous signals have to be dug. Add to this the extra time needed to recover the many extra artefacts that were deep, and intensive systematic survey becomes impractical. Further experimentation in English conditions and using more modern detector designs are needed to seek a solution. It is research best undertaken not as reconnaissance survey on an as yet unlocated battlefield, but on the core of a securely located battlefield. This would give a good chance of recovering some battle-related objects from beyond VLF detector depth to demonstrate effectiveness, and there is also at least a small chance of the ferrous artefacts themselves being battle-related.

This problem can be compounded by earlier detecting which, in the absence of cultivation to redistribute the artefacts, will have further reduced the number of objects in the more accessible upper levels of the topsoil. Adequate objective data on these effects is still lacking, for example to understand how the rate of migration varies in different soil contexts depending how many worms there are, and thus how many decades it takes for artefacts to

[158] C. Adams, C. Haecker, D. Scott and P. Severts, 2016, 'The Methodological Implications for Battlefield Metal Detecting Survey of the Pulse Induction and Zero Voltage Technologies'. Paper given at the Ninth International Fields of Conflict Conference 2016, Dublin.

pass beyond effective detecting depth on different sites. The effect on battlefield survey in the UK was first noted, anecdotally, at Naseby in 1995 on ridge and furrow uncultivated since the early 19th century. It was seen again on ridge and furrow on Edgehill battlefield from its impact on recovery rates of different calibres of lead bullet.[159] More detailed evidence was forthcoming from test pitting in 2011 and then in 2013 in stripping 20cm spits of topsoil in trial trenches at Battle on what is believed to be the 1066 Hastings battlefield.[160] More detailed data should be forthcoming from ongoing work at the battlefield of Waterloo, but a full understanding of the process and how it might best be mitigated by use of more specialist metal detectors will probably demand long term experimentation. However it should be noted that, as discussed for Edgehill, artefact mass will significantly influence the effectiveness of recovery with increasing depth. Indeed at Bosworth a 97mm lead and stone composite round shot, because it contained so much lead, was recovered with a VLF detector even though embedded in the subsoil at a depth of over 30cm. So even round shot of 40 or 50mm diameter, that were the most common calibres present at Bosworth, calibres which have already been recovered from Barnet, will often be recoverable in permanent pasture, even from the lower levels of the topsoil. But again experimentation is needed to demonstrate more clearly the interaction of size, lead content and depth of lead projectiles in determining recovery rates in detecting survey with typical VLF detectors.

The coverage and effectiveness of the detecting is depicted on figure 39. It can be seen that despite the various constraints discussed above, the north western part of the Barnet search area was effectively covered, providing a substantial sample of most of the potential northern site for the battle, along the Margery Mead valley (figure 36 option 1). The two zones which might be further explored here are immediately north of Dancers Hill Lane, and the land on the south western side of the valley as both might contain extensive overshots of artillery rounds if Warwick was deployed along Dancers Hill. However if this was the battlefield then the intermediate areas on the northern slope, which were intensively surveyed and mostly on arable and under good conditions, might have been expected to yield some round shot. As it is, in this areas we only have the two vaguely located rounds recovered by Adkin. The wide valley bottom in Margery Mead plus the southern slope and the alternative site on the shallow valley extending south eastward from Margery Mead were also not adequately sampled (figure 36 option 2).

[159] Foard 1995, Naseby, p.27 n.15; Foard 2012, Battlefield Archaeology of the English Civil War, 150-1.
[160] Foard, in preparation.

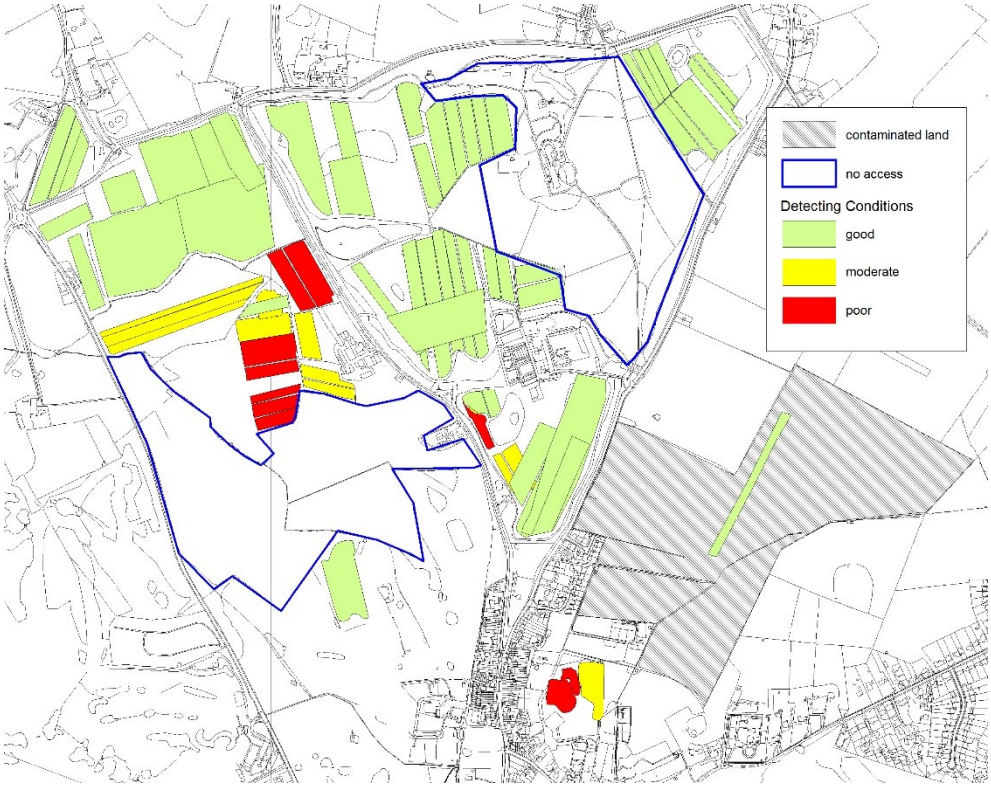

Figure 39: Detecting conditions encountered during the survey. On an OS MasterMap base © *Crown copyright and database rights 2020 Ordnance Survey 100025252*

The southern Monken Mead valley site extending up to Kicks End (figure 36, options 3 & 4) was only effectively sampled on the area of the former common immediately adjacent to Kicks End, most of the rest of the site having been heavily contaminated. One important zone on this site which was not examined but can now be seen as of high importance is the higher land on the south east of Monken Mead abutting the north eastward modern expansion of Monken Hadley. This rising ground, which might contain overshot Lancastrian artillery rounds if Kicks End Common was the focus of the battle, remains under pasture and is under different ownership and so unlikely to have been contaminated. However sampling here was not practicable because it had not been intensively grazed when, in the final days of our survey, the arable in the rest of the valley was shown to be contaminated.

The potential north eastern site, if the battlefield focused on Bentley Heath (figure 36 option 5), was only sampled on the former Bentley Heath common itself. The land sloping down south eastward from here through Deadman's Bottom into Monken Mead was never tested. The arable here may also prove to be contaminated, though this does need to be tested to establish is survey here is still practicable.

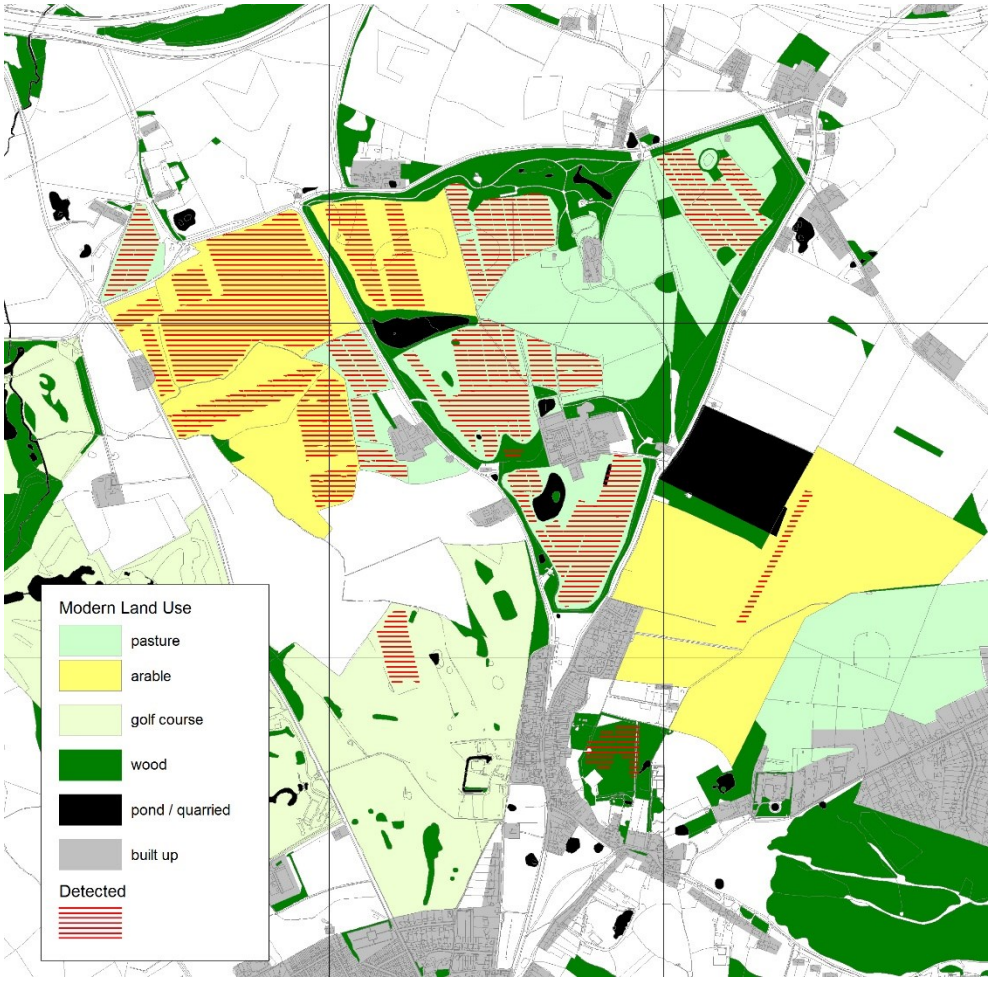

Figure 40: Areas detected in the survey shown in relation to modern land use at the time of the survey. On an OS MasterMap base

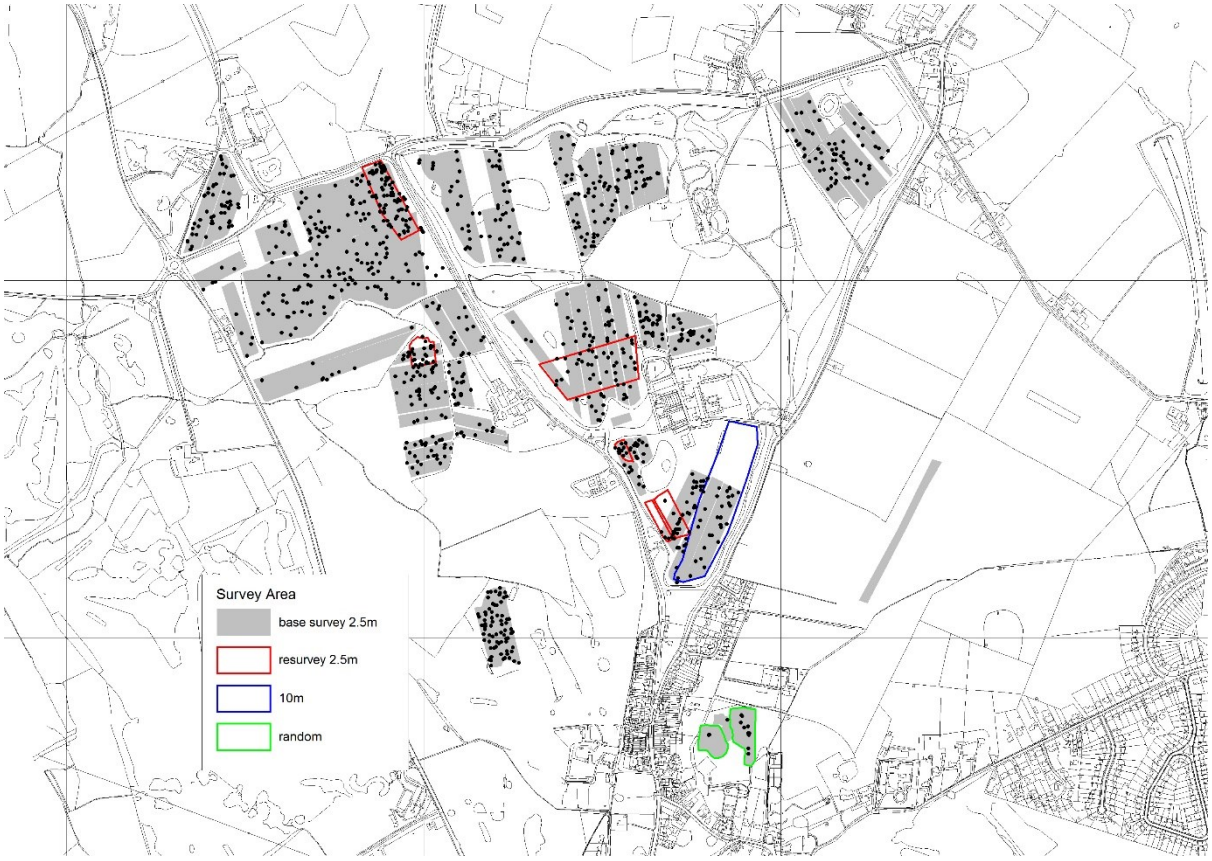

Figure 41: Coverage and intensity of survey plus location of all finds recorded in current project, but finds from 10m transect survey in 2006 not shown. On OS Mastermap base © *Crown copyright and database rights 2020 Ordnance Survey 100025252*

5.3 The Finds

A total of 1007 finds were recorded in the survey. They represent only a small percentage of recovered objects, most of which were modern 'junk'. The latter were initially collected separately by each detectorist for the area they surveyed on each day. These were subsequently checked at the museum to ensure no potentially significant finds had been accidentally dumped into the junk, in which case they were retrieved and processed. Initially the numbers of pieces of junk for each detectorist for each day area were totalled before the material was discarded. This recording was unfortunately not maintained because of the inconsistency of decision making by the frequently changing composition of the survey team. As a result no data is available to review the density of background noise of modern junk across the survey area. This is one of several issues which reinforce the importance in a major battlefield survey, whenever possible, of quickly training and then maintaining a consistent, small and highly experienced detecting team throughout the investigation as was achieved in both the Edgehill and Bosworth surveys.

An initial rapid assessment of the individually recorded finds was undertaken by the fieldwork director, and a total of 139 selected for additional expert analysis by Katie Marsden, finds specialist at Cotswold Archaeology. The remainder were either easily identifiable or obviously post-medieval/modern in date and so did not require further analysis. Remarkably there was only one Roman and one Saxon artefact, a fragment of a

brooch and a strap mount respectively. Just 16 finds were certainly medieval, one was probably medieval, and 26 were only broadly dateable to the medieval or early modern.

The vast majority of artefacts recorded in the survey were of early modern date. Two are military in character: a 17th century powder box cap of lead from a musketeer's bandolier, and a 16th-18th century strap fitting from a sword belt hangar (figure 46). There was also a decorated spur with traces of gilding which could be as late at the Civil War (figure 48). The proportion of special finds to bullets is typically very low on fields of conflict of the Civil War – at Edgehill for example the ratio of powder box caps to bullets in the whole 2004-7 survey was 1:38 and for musket calibre bullets 1:16.[161] There are 100 spherical lead bullets recovered in the Barnet survey that are analysed here. Of these three show evidence of firing from a rifled barrel and so are probably 19th century. The principal data collected from the bullets was mass and it is from this that calibre in millimetres has been calculated, in order to enable distorted bullets to be included in the analysis. Two other assemblages of bullets are also discussed here, one in Barnet museum donated by an unnamed detectorist and said to have been recovered from Hadley Common, and an assemblage of 66 bullets recovered from right across Wrotham Park estate by David Adkin. Both of these collections lack any data on distribution.

If the possibly military artefacts noted above indicated a Civil War skirmish then one would expect them to be associated with a concentration of lead bullets of musket calibre. It can be seen from the calibre graph that very few bullets of 12 or 14 bore, which were the two main calibres in use in Civil War muskets, were recovered in the survey or indeed by Adkin. The Hadley Common bullets show a similar calibre profile but with even fewer musket calibre bullets. This is typical of non-Civil War assemblages. Moreover the musket calibre distribution from our survey shows no obvious concentration or association with the other possibly Civil War military finds (figure 46). Neither have we located any report of military action in the Barnet area. Another possibility for deposition of these finds is accidental loss by troops during the Civil War. As we have noted above, the London to St Albans road will have been heavily used during the war, particularly by parliamentarian armies and some may well have quartered in the area.

[161] Foard 2012, 156 & 170.

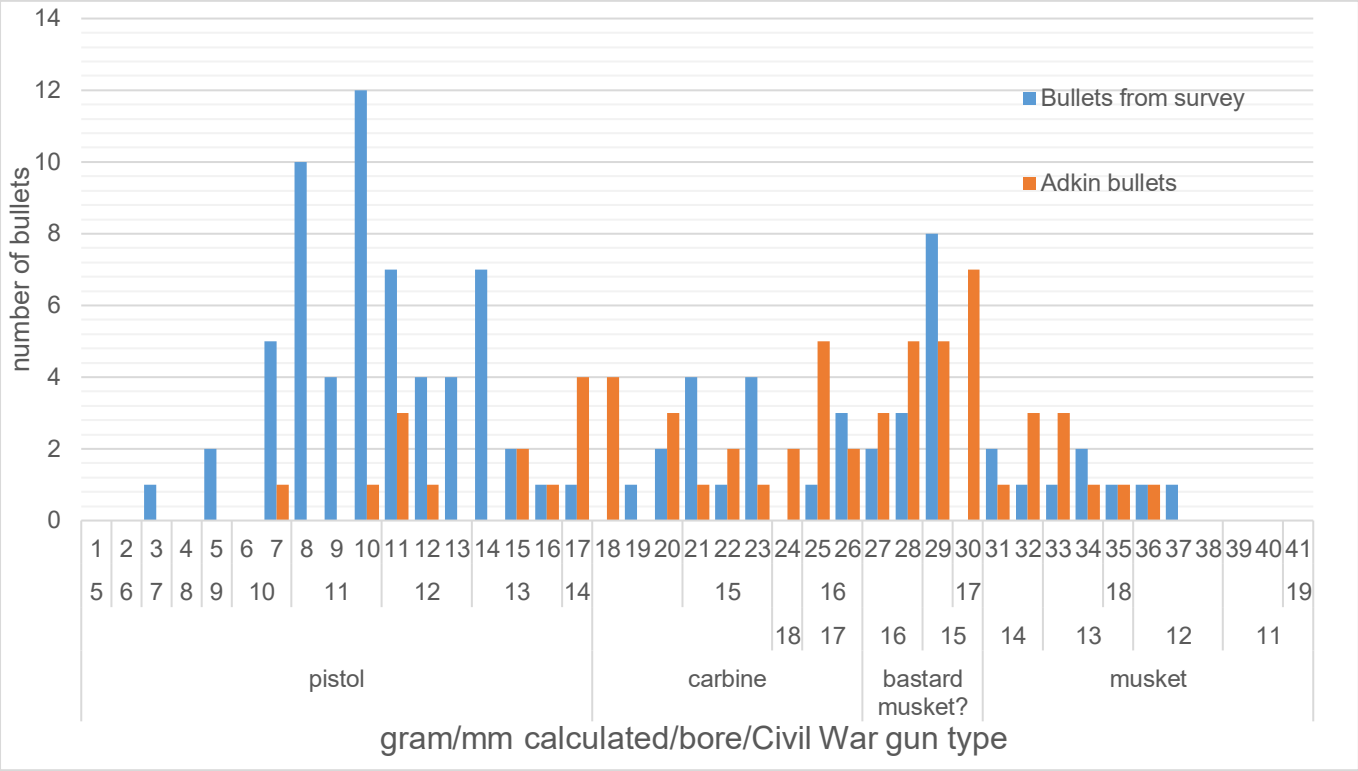

Figure 42: Graph of calibre of spherical lead bullets from the survey and from Adkin's detecting within the Wrotham Park estate

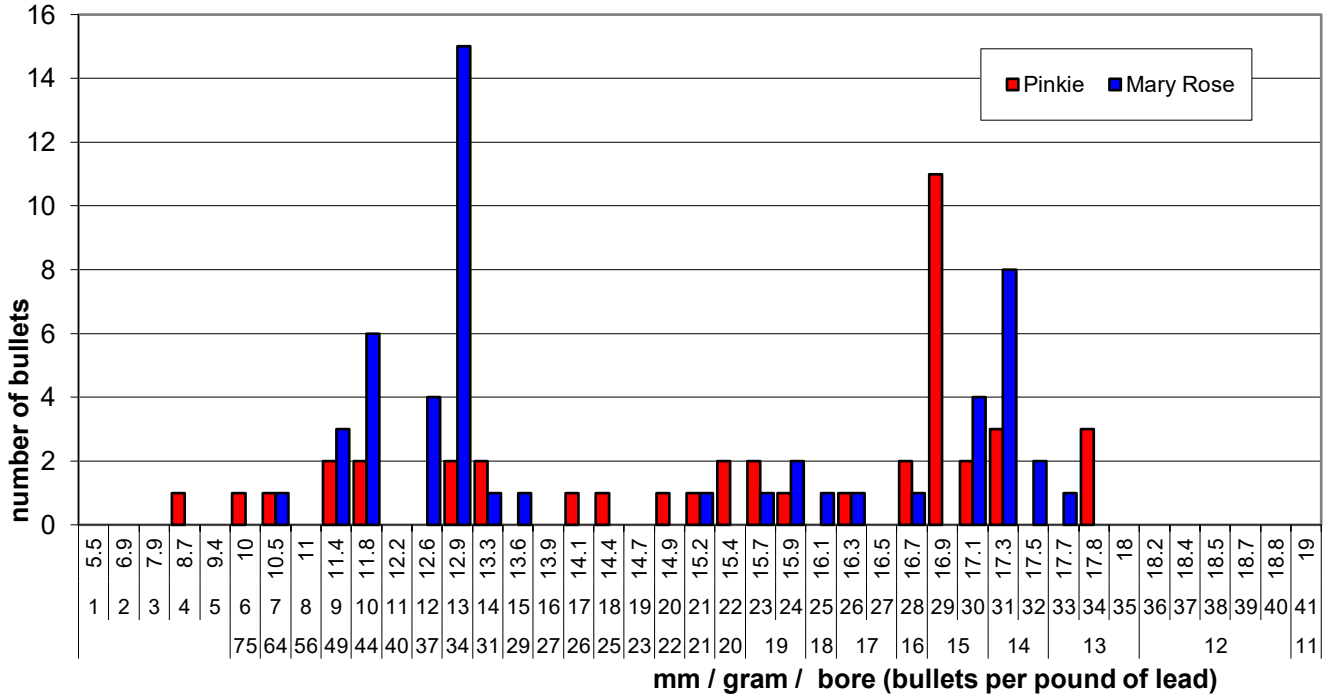

Figure 43: Graph of bullet calibre for Pinkie battlefield and the Mary Rose (after Foard and Curry 2013)

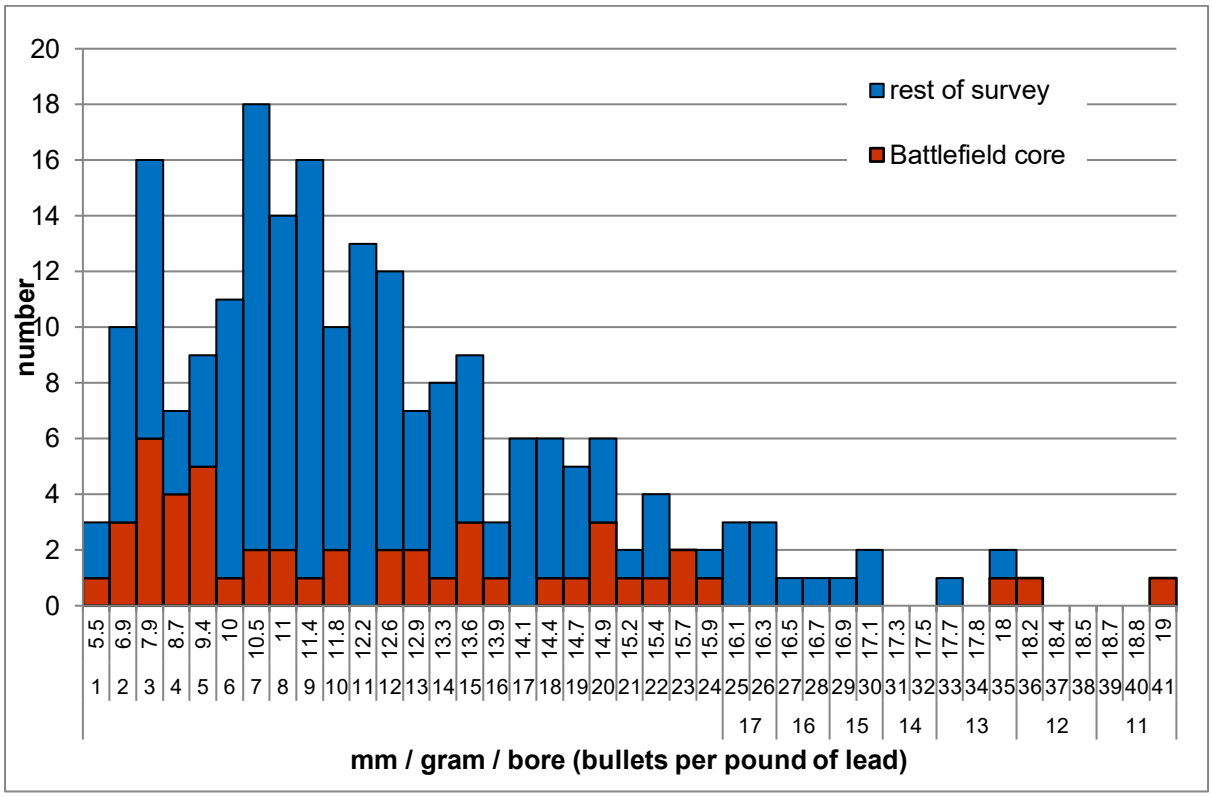

Figure 44: Graph of bullet calibre for the Bosworth battlefield survey (after Foard and Curry 2013)

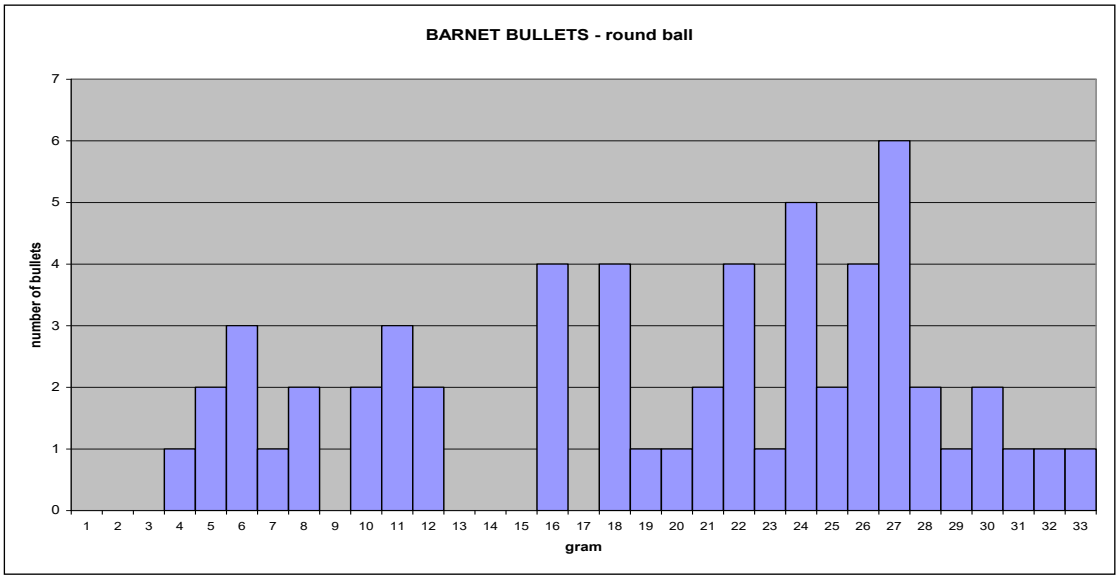

Figure 45: Bullets said to have been collected from Hadley Common and now in Barnet Museum

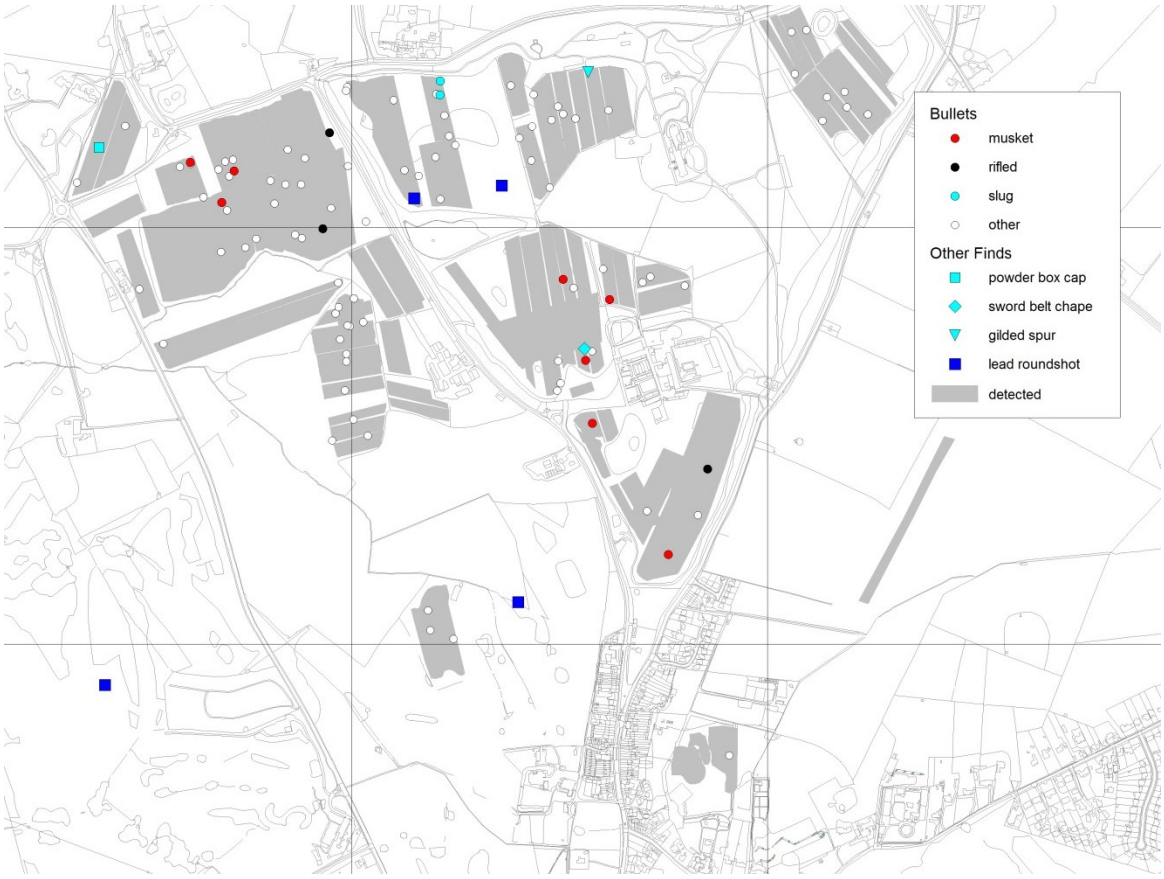

Figure 46: Finds which are or could be early modern, some of which may be of Civil War military origin. The lead balls fired from a rifle are almost certainly from the 19th century. On an OS MasterMap base

What the bullet calibre graph does show is a distinct peak around 29g, which gives a diameter of 16.5 - 17mm. The Adkin bullet data, also collected from the Wrotham Park estate, shows a similar peak. The calibre graph for the Hadley Common bullets does not show this peak but does have a different unexplained peak at 26-27g. Understanding what these peaks mean is difficult because we are currently working with such a small number of comparative data sets on bullet calibres. The 29g peak is absent from calibre graphs of non-battlefield background noise that we have studied, and also from the Bosworth graph, nor is it seen in Civil War assemblages such as Edgehill or the Duart Wreck.[162] This raises the slight possibility that it represents evidence for Flemish handgunners at Barnet. Interestingly there is a corresponding peak at 29g in the bullets from the 1547 Pinkie battlefield where again early handguns are known to have been used in substantial number. Ten of these 11 bullets come from the northern part of the Barnet survey area, but the spread extends for 1.5km from east to west and this lack of focus might argue against a battle origin. When more comparative data sets are available from other battlefields and training grounds it may be revealed that these unusual bullets are actually typical of some later sporting weapon. For example there is a very slight peak centred on 31g in the Grafton Regis siege bullet assemblage which might correspond to that seen at Barnet, but it is unclear whether this relates to the Civil War siege

[162] Foard & Curry 2013, 143; Foard 2012, 68-76; Foard 2017.

or perhaps to hunting in the deer park over part of which the siege survey extended.[163] The Barnet bullets might even prove to be related to even later military training – although the Brown Bess, the most common 18th century musket, fired a ball of 18mm (c.35g).

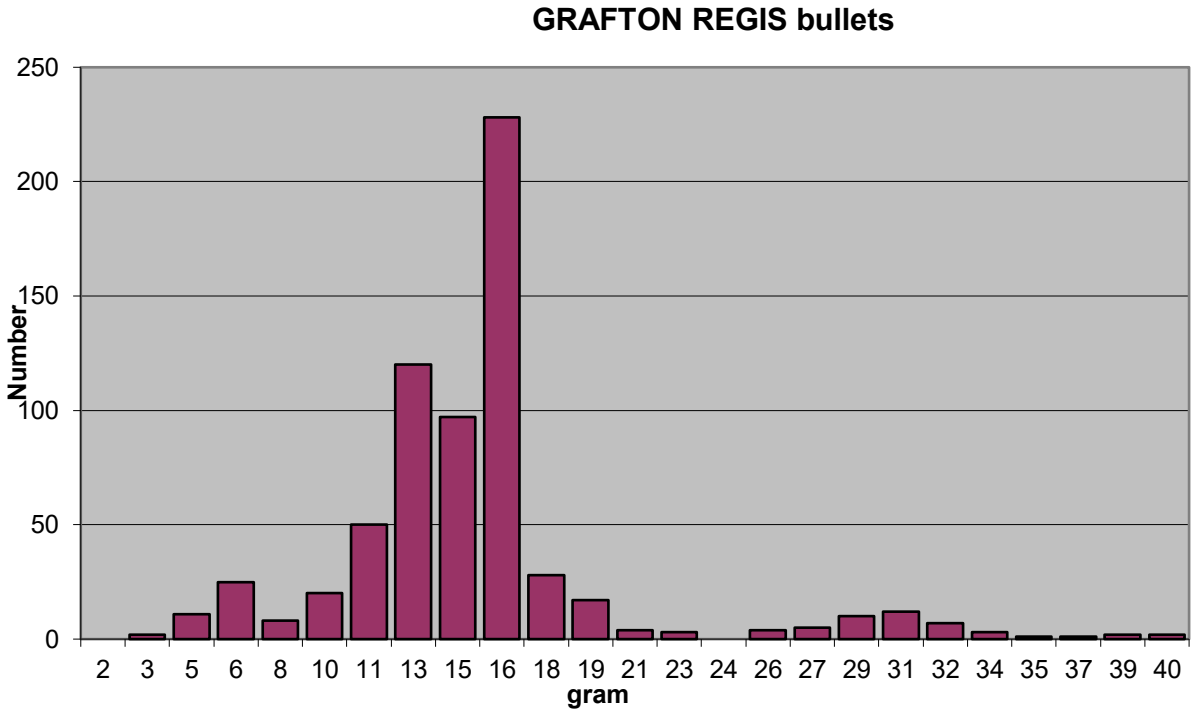

Figure 47: calibre graph for bullets from the Civil War siege site at Grafton Regis, Northamptonshire (Foard 2012)

The final set of evidence is the distribution of other medieval finds. All copper-alloy vessel fragments are separated out in our map as these are highly unlikely to be related to the battle. The only exception might be if a tight grouping of such finds represented plundering of a baggage train. The distribution of the remainder of the medieval finds, which comprise mounts (one formerly enamelled), spurs, buckles, coins and a purse bar, is interestingly restricted almost solely to the north western part of the survey area. This is the same general area as the 27-29g bullets, though extending further south than them. Four later 15th century finds made by Adkin also came from this general area (figure 38). Near the north eastern limit of the slight medieval scatter one high status medieval object was also recovered, a silver gilt pewter brooch, though this may not date quite as late as the 15th century. This may have no link to the battle but it could be just the first hint of a pattern seen at Bosworth, where a very small number of high status objects were found in two discrete clusters on the Bosworth battlefield within a broader but still sparse scatter of other medieval finds. Such clusters may indicate where high status individuals were engaged in hand to hand action – perhaps where they were killed. It is possible that such ephemeral clusters will prove to be the main archaeological signature of most medieval battles (if lead round shot are not present in large number). But such evidence need not always represent the core of the action, for at Bosworth one group was found two years before the main battlefield was discovered and lay over one kilometre east of the main action. It has been interpreted as perhaps representing action in the Yorkist rout where high status individuals were engaged and killed. If these

[163] Foard 2000.

medieval finds from Barnet are battle-related then they may have a similar significance. Not only is this ephemeral scatter of medieval artefacts associated with a slight scatter of an atypical calibre of bullet, it is also where Adkin reported finding two lead round shot. Might it represent a fight across the Margery Mead valley or result from Lancastrian troops routing back across that valley? The latter interpretation would help to explain why the survey failed to find lead round shot across this whole area, because the main action could be as much as a kilometre beyond the area surveyed, given the approximate range of artillery firing such small calibre round shot.

However, this evidence is so ephemeral that other explanations must be considered. The medieval finds may simply reflect casual loss from the medieval settlement that was widely dispersed across the landscape north of Kitts End. An even more likely explanation is revealed when the medieval artefact scatter is viewed in relation to the extent of early modern commons, which as we have seen represents their minimum medieval extent. This reveals that, apart from the small area sampled on the golf course, the absence of medieval finds outside the north western sector of our survey could simply be because the majority of finds were deposited with manure spread on arable fields during the medieval period – a process clearly demonstrated in many studies as explaining variation in the distribution of sherds of medieval ceramics across the landscape. At Barnet the commons will have seen no cultivation and hence no manuring before they were enclosed in the 18th century. This mundane explanation needs to be tested by further detecting on as yet unsampled areas within and especially outside the commons.

What is clear from the documentary record for the battle, from Spencer's study of the ammunition used in field artillery pieces in the Wars of the Roses, and from Bosworth, is that at Barnet there ought to be a substantial scatter of lead and lead composite round shot covering a substantial area where the main action was fought. The evidence from Bosworth would suggest that the methodology we applied at Barnet should be sufficient to locate such a scatter. That we did not find such evidence, despite the recovery of the other medieval finds and the bullets discussed above, argues strongly that even if those finds do represent evidence of the fighting it is peripheral to the main action which must lie beyond the area we surveyed.

Figure 48: a decorated spur with a trace of surviving gilding possibly dating between 1540 and 1660 (BAR 501). ©Ingrid Zanchetta

Figure 49: Medieval silver gilt pewter brooch 12th to 14th century (BAR523). ©Ingrid Zanchetta

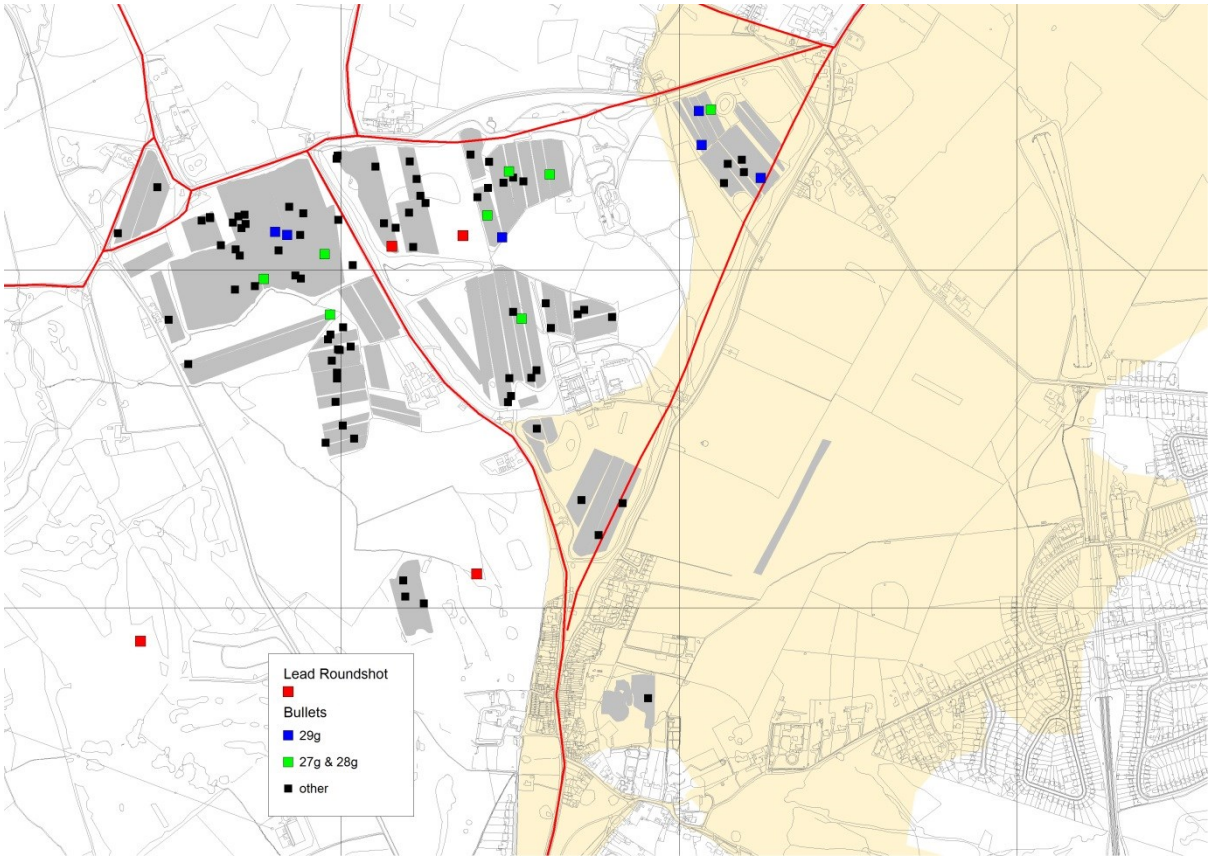

Figure 50: Bullets of unusual calibre (27-29g which is 16.5-17mm) viewed against all other bullets from the survey on a background of land unenclosed before the 18th century. On an OS MasterMap base

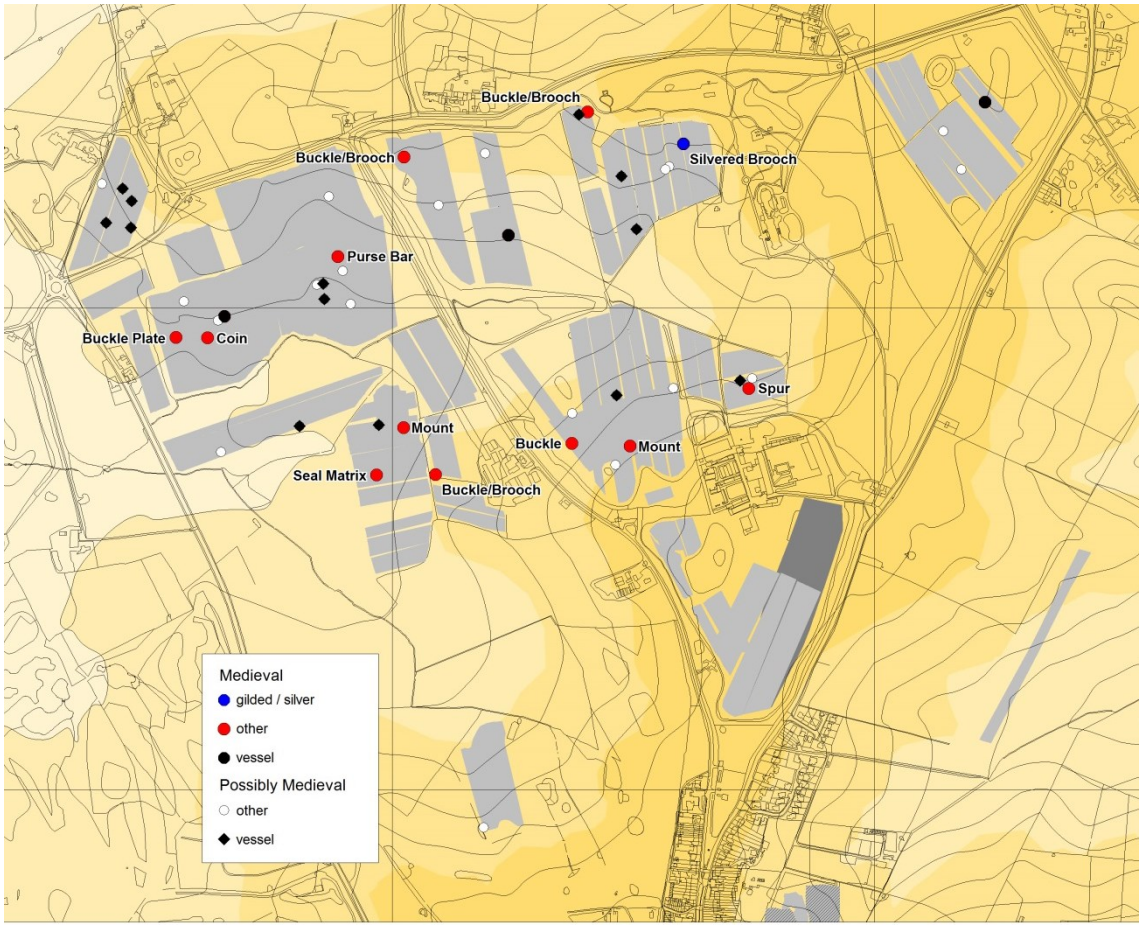

Figure 51: Medieval finds on a background of OS Mastermap and relief. © Crown copyright and database rights 2020 Ordnance Survey 100025252

Figure 52: Cast iron spheres of various sizes in Barnet Museum which were originally suggested to be 'cannonballs' from the battle. ©Glenn Foard

Figure 53: Lead roundshot from Barnet, one recovered by Heathfield on Shire Golf Course (left) and two by Adkin within Wrotham Park. ©Glenn Foard

Figure 54: Two images of the lead roundshot recovered by Heathfield on Shire Golf Course. ©Glenn Foard

6. CONCLUSIONS

The data assembled here do not prove where exactly the battle of Barnet was fought. What the project has done is to provide a secure base for any future investigation by reassessing the primary documentary sources for the battle; refining and extending the evidence for the historic terrain and presenting this accurately in digital form in GIS to a modern Ordnance survey map base; then reviewing how this evidence influences interpretation of the primary sources and the military probabilities. This has enabled the traditional and other favoured locations to be assessed alongside further possible sites for the battlefield, even if we cannot yet decide between them. What the project may also have done is glimpse an ephemeral and very peripheral part of the battle-related artefact scatter. This is perhaps sufficient evidence to justify a new programme of metal detecting following the same methodology.

As the primary evidence for the battle and for the historic terrain was assembled it soon became clear that only archaeological evidence was likely to resolve the Barnet problem. The putative chapel site was therefore tested using geophysics and test pitting. This did not reveal the presence of a chapel but it did show the survival of good stratigraphy for the moated site, demonstrating that future larger scale excavation should be able to determine if this was the chapel site. We also reviewed each of the alternative sites for the battle in the light of past discoveries of potential battle archaeology but found that most of these finds had to be dismissed. Notable here were the various cast iron spheres which, despite past claims, are almost certainly not round shot from the battle – not least because cast iron round shot seems not to have been in regular use for field artillery in England until the 1480s at the earliest. Even the ferrous arrowheads from Barnet, which are probably battle-related and would benefit from specialist comparison with the Towton arrowheads, cannot help us as they currently have no specific provenance. The finds that ought to have assisted are the three, possibly four lead round shot recovered in the 1990s and 2000s, as they are comparable to artillery rounds from other battlefields of the Wars of the Roses. But their findspots were at best only vaguely located. The focus therefore fell upon our systematic metal detecting survey through which, as far as practicable, we tested all the alternative sites. Why then, despite initial promise from the assessment of past discoveries, has the survey produced failed to provide definitive evidence?

The first and our favoured explanation, supported by experience in the first three years of the longer running Bosworth survey, is simply that the true site lies in an area which we could not examine or, even more problematic, lies beyond our search area. The latter option seems unlikely given the corroboration between several independent primary sources, one an eye witness, that the site lay between half a mile and a mile north of Barnet. To ensure that all options were considered, in defining the alternative sites within our search zone we have included areas beyond this distance which have patterns of relief and drainage which could match that specified by or implied in the accounts. Also, given most of the topographical detail comes from just one account, we have included options where the pattern of relief alone, in terms of inherent military probability, has high tactical potential. In using the historic landscape evidence, which closely defines areas of unenclosed land in the early modern period – the commons and the pastures of Enfield Chase – which will also have been unenclosed in the late medieval, we have also specified the uncertainties. Most important is the likelihood that the unenclosed areas were larger in 1471, with the location and extent of

Kicks End Heath and of other unenclosed land in the Margery Mead valley being of particular significance.

On present evidence the historic terrain of Kicks End Common and its environs most closely accords with the topographical detail in the primary sources (figure 36 option 3). The site enables an east-west deployment by Warwick, positioned behind enclosure boundaries along the northern edge of the Common, with the Common and the adjacent pastures in the Chase representing the broad green plot. This land also abuts Enfield Chase as Rastel implies the battlefield does. South east of the common the pastures of the Chase fall into the head of the Monken Mead valley which provides lower and potentially marshy ground where overnight Lancastrian artillery fire could have passed over the heads of at least some of Edward's troops. If his deployment extended from here westward across the St Albans road, which he would surely have needed to control, then at least some of his troops would have been on the opposite side of that road to the Lancastrians with the rest of Edward's army on the opposite side of the Hatfield road to the enemy. In this case Warwick's artillery might have been on the two flanks, as per Machiavelli's military manual, and so controlling the two main roads and explaining Wesel's comment that they were set on the road to Barnet. This site also has Pinchbank nearby, the house where the wounded Duke of Exeter was said to have been taken, and the putative battle chapel lies on the Common. Minor problems fitting the terrain here with the primary accounts can be accounted for by Wesel merging evidence from eyewitnesses from very different parts of the Yorkist deployment. What presents a major problem is the pale of Enfield Chase (the Gannick Bank). Though not mentioned in any account this would have run obliquely between the two armies and formed a major impediment for the Yorkist attack and would probably have made it impossible for much of the artillery to have seen and engaged the enemy as they are said to have done in the morning.

The variant of this site (figure 36 option 4), favoured by Warren, exploits the problem of the pale of the Chase by deploying Warwick immediately behind the Gannick Bank, which in the late medieval was still a hedged boundary as the Arrival demands. The problem here is that it puts Warwick's deployment far away from its documented east-west orientation; it demands that Wesel wholly confused the Hatfield for the St Albans road; and it requires Warwick to have somewhat dangerously presented his right flank to Edward's forces approaching up the St Albans road, although he could then have deployed artillery on this flank as protection so explaining why Wesel says they were on the road to Barnet.

It seems likely that sufficient ground was intensively detected on Kicks End Common and to its north to show that artillery rounds from the initial artillery exchange in the morning do not lie where they ought to be if this was the battlefield. However it must be admitted that only limited areas were accessible due to modern development and contamination, and there is also our the caveat about the impact of permanent pasture on recovery rates. It could also be argued that fire from at least some Yorkist artillery would have been from the Monken Mead valley bottom and thus with highly elevated guns. It is unclear how far rounds fired in this way would have carried north of the Common edge. What can be said with some confidence is that the distance is too great for extreme overshot from here to account for the two rounds from Adkin's detecting on the far slope of the Margery Mead valley. Although we could not survey the land falling onto Monken Mead due to contamination, one might have expected Adkin's earlier less intensive detecting here, before it was contaminated, to have recovered

some evidence if there had been intense artillery fire across the area. There is one zone behind the putative Yorkist deployment that we did not examine that could still be intensively detected. Based on the experimental work undertaken in connection with the Bosworth project we can suggest a final range, after bounce and roll, of the order of 1km for round shot from field artillery of the period. If Warwick had deployed along the Gannick Bank or possibly even if on the north edge of Kicks End Common then artillery rounds from the overnight firing could well lie on the uncontaminated pasture beyond the Monken Mead stream. We did undertake a small amount of detecting in the vicinity of the head of Monken Mead, although this was hampered significantly by very long grass and partially inaccessible woodland. But critically we did not examine the fields adjacent to the modern housing to the east of the stream because their potential importance was not realised until the fieldwork phase was completed.

The third alternative Kick's End site sees Edward deployed in the very shallow valley extending south eastward from Margery Mead towards Kicks End, with Warwick again in the Kicks End enclosures (figure 36 option 2). While the absence of round shot in the detecting on and north of Kicks End Common is still relevant to this interpretation, as Yorkist overshots should lie there, Lancastrian fire will have fallen in the inaccessible land on the west of the St Albans road. Here only a small area of the land on the Old Fold Golf Course was tested, with negative results. Here then is a major target for future investigation if access can be obtained.

The next site is Margery Mead and Dancers Hill. Although it is well over a mile from Barnet, it meets several of the other topographical requirements for the battlefield (figure 36 option 1). If Warwick deployed along Dancers Hill on the St Albans road and lanes that continue along the ridge on either side, then Edward would have deployed on the opposite side of the road in Margery Mead which potentially had a marshy valley bottom. Also this area has associated with it two and possibly all four of the lead round shot previously discovered at Barnet. Unfortunately the two earlier finds now look problematic in the light of our survey results. Having intensively detected much of the ground between Dancers Hill and the valley bottom, including the field where Adkin reports two round shot, we recovered no more round shot. This is quite strong negative evidence, not least because all the land was under arable cultivation, was intensively detected in good conditions and mainly by experienced battlefield detectorists, with the field immediately west of the St Albans road detected twice. Given the distribution of round shot at Bosworth, the lack of a scatter of round shot in these fields on the slope between the two putative deployments is difficult to explain if this was the battlefield, despite the earlier round shot finds. However it is this zone where we have identified a very sparse scatter of medieval finds, including one high status object, and a slight scatter of bullets of unusual calibre. The caveats are many, including the fact that our detecting in the valley bottom was mainly undertaken in poor conditions; our failure to gain access further south; and the failure to examine all but a very small area on top of or beyond Dancers Hill. These are all areas where it might be argued that most of the artillery overshots would have come to rest and thus are important targets for future survey.

The next location to consider is Bentley Heath, which shares most of the positive attributes of the Kick's End site (figure 36 option 5). This location is also supported by the report that the Gannick Bank at Bentley Heath was demolished during the battle – though this is in a much later document and so may prove a spurious link. As with Kicks End Common so with

Bentley Heath we detected part of the former heath and failed to recover any significant artefacts, which when compared with Bosworth provides strong negative evidence. But during the survey this site was not considered a serious contender for the battlefield, because it lies well over a mile from Barnet and far from St Albans road. However the failure of the preferred sites to yield definitive battle archaeology does mean more extensive detecting on and around Bentley Heath would now be justified. Most importantly we did not investigate the ground falling south eastward through Deadman's Bottom into Monken Mead, where Lancastrian overshots might lie, though it may prove to be as contaminated as the land immediately to the south. Nor did we examine the limited areas of undeveloped land on the north side of the former Bentley Heath, where Yorkist overshots might lie. If the main action were across this heath then the finds we did make further west could still represent the destruction of routed Lancastrian troops, though in that context the four round shot would be difficult to explain.

Finally there is the southern site favoured by Burne, which is the area currently included on the Register(figure 36 option 6). It would accord with the half mile from Barnet reported by the eye witness, but not the mile from other accounts; it also provides problems for an east-west Lancastrian deployment, unless the northern edge of Hadley Common was unoccupied by houses in 1471, which is possible. This is also not suitable ground for the Yorkists to have deployed in a hollow and marshy ground nor, due to the sloping ground eastward and the presence of Monken Hadley village is there room for their deployment to have extended east of and thus to have then overwinged the Lancastrian left. While we did not undertake any detecting on or near Hadley Common, the Glasgow University Archaeology Research Division (GUARD) had already sampled in this area for the Two Men in a Trench TV series with very intensive detecting of sample areas on a grid system. They did not report finding any lead or lead composite round shot or any other obviously battle-related finds.[164] However although the detecting was intensive, the extent of coverage was so small that a round shot scatter even of the scale seen at Bosworth could easily have been missed. There is therefore potential for further metal detecting here, though it is likely to be contaminated with modern artefacts, due to the free public access to this land. But GUARD do seem to have achieved effective detecting and so further work on Hadley Green might be practicable.

Are there other possible explanations for our failure to find battle archaeology on any of the alternative sites? It might be argued that the true site has been already *worked out* by treasure hunters who have not reported their finds – a process which anecdotal reports from some detectorists suggests is happening at Towton. While removing all accessible shallow finds would be much more easily achieved on permanent pasture, for the reasons discussed above, it seems unlikely to have occurred in the areas we examined. This is because Wrotham Park Estate has been highly restrictive about letting detectorists work their land, with Adkin being the only one to have undertaken extensive detecting over a long period. Moreover a significant degree of illicit detecting is improbable given the lack of easy access to the park, the openness of the ground and the visibility from most of it from the hall or the offices. The same is true of the land west of the park because it too is very open and is overlooked by the farm there.

[164] Pollard & Oliver, 2002, *Two Men in a Trench*, 98-115.

Finally it could be argued that one potential explanation for the lack of round shot from our survey is that pre-Bosworth battles did not involve use of large numbers of lead and lead composite round shot. In support of this one can build a strong case from the lack of many such finds from the 1461 battle at Towton. It has produced just two or three small lead and lead composite projectiles for artillery. It might also be argued that the two or three lead round shot reported from Northampton battlefield were not from the Wars of the Roses battle but were fired during the Civil War from artillery on the defences against royalist forces, who were engaged on several occasions when they approached close to the town. Civil War artillery is a far less likely explanation for the three or four lead round shot previously found at Barnet. Although we know troops regularly marched through and occasionally quartered there during the Civil War, there is no context of military action around Barnet. Nor, as we have seen, is the wider archaeology compatible with an unrecorded skirmish involving artillery. While random loss of one or two lead artillery rounds might be possible from an army on the march, to find three or four scattered across such wide area as they are at Barnet makes such an explanation highly improbable. What we cannot say with confidence, due to the relatively poor condition of three of the finds examined is whether they had been fired, as that would have made accidental loss impossible.

What cannot be denied is the documentary evidence assembled by Spencer that lead round shot was not just in use in the 1480s but was for the whole of the period of the Wars of the Roses the standard munition for the types of small artillery piece used by field armies in battle. Nor does that evidence allow for the use in such guns before 1485 of stone rounds or indeed large scale use of cast iron rounds in preference to lead.[165]

In trying to understand the lack of battle-related evidence from Barnet one is faced by a much wider problem than just the matter of round shot. This is because the only two battlefields of the Wars of the Roses which have so far produced large scale physical evidence of action present archaeology of almost diametrically opposed character. Assessing the results of the current project against those almost contradictory standards makes it difficult to define the degree of confidence which should be placed the negative let alone the very slight potentially positive evidence we have assembled at Barnet. While a Towton-like scatter should probably not be expected for reasons rehearsed in the analysis of Bosworth, the failure to recover a scatter comparable to that seen at Bosworth suggests strongly that we simply did not examine the relevant area. But the slight scatter of finds which we did recover, and especially the round shot found previously suggests the main action does not lie far beyond the zone we detected and we have specified adjacent areas which we did not or could not detect or where our detecting was undertaken in poor conditions.

There is therefore a strong case of a further programme of systematic archaeological metal detecting survey at Barnet, undertaken on 2.5m spaced transects to ensure direct comparability to the present survey. If access can be achieved for such work then it is our view that this is the most appropriate next step in the search for Barnet battlefield. The second priority we would suggest is larger scale excavation of at least part of the island of the Kick's End moat to determine if there is any evidence for a chapel beneath the early modern hermitage. Other work to refine our understanding of the historic landscape, such as trial trenching to establish the character of the Gannick Bank as a barrier, or trenching and test

[165] Spencer 2019, 231-257.

pitting to more accurately define the extent of Kick's End in 1471, should await the completion of these two investigations. Only when we know where the battle was fought will it be worth trying to better understand the fine detail of the historic terrain through such time consuming excavation.

That we did not examine some of what are now seen as key areas is partly a result of our attempt at Barnet to establish whether investigation on a smaller scale and undertaken over a much shorter timescale than at Bosworth could be effective. It explains our inability to cover sufficient area and, most importantly, to have the time to fully review all the results and revise the detecting targets in response to detailed analysis. A longer timescale of at least three years, as seen at Bosworth, would appear to be the only way to work effectively around the limitations of the agricultural regime. Comparison between the two surveys also shows the importance of a locally based supervisor working part time, usually with the team in the field no more than once a week, typically at a weekend to enable the widest recruitment potential for the detecting team. Such an arrangements provides essential flexibility and ongoing local knowledge to keep track of changing conditions and to respond immediately as fields become available in good condition. In some senses this is the most important lesson of the current project.

Bibliography

Adair, J. 1968, 'The Newsletter of Gerhard von Wesel, 17 April 1471', *Journal of the Society for Army Historical Research.*
Adams, C., C. Haecker, D. Scott and P. Severts, 2016, 'The Methodological Implications for Battlefield Metal Detecting Survey of the Pulse Induction and Zero Voltage Technologies'. Paper given at the Ninth International Fields of Conflict Conference 2016, Dublin.
Audley, T., c. 1540, *Arte of Warre*, reprinted 2002.
Baker, H.M. 1970 'Wrotham Park and Kitts End' *Barnet and District Local History Society Bulletin,* No. 16.;
Baker, H.M. 1973 'Dancers Hill and the Manor of Mandeville'. *Barnet and District Local History Society Bulletin,* No.17.
Barker, D., Strutt, K., and S. Wilson, 2019, *Report on the Geophysical Survey at Wrotham Park, Potter's Bar, Barnet, Hertfordshire,* unpublished report in project archive August-September 2018
Barr, N., 2001, *Flodden, 1513.*
Barrett, C.R.B., 1896, *Battles & battlefields in England.*
Bindoff, S.T. (ed.), 1982, *The History of Parliament: the House of Commons 1509-1558.*
Brooke, R., 1857, *Visits to Fields of Battle in England of the Fifteenth Century.*
Burley P., M. Elliott, and H. Watson, 2007 *The Battles of St Albans.*
Burne, A H, 1950 *The Battlefields of England.*
Cass, F.C. 1877, *The Parish of South Mimms.*
Cass, F.C. 1880, *The Parish of Monken Hadley.*
Cass, F.C. 1882, 'The Battle of Barnet', *Transactions of the London and Middlesex Archaeological Society*, vol.5, p.22.
Cotswold Archaeology, 2017, *Battle of Barnet Survey, Wrotham Park, Barnet, Hertfordshire. Archaeological Test Pitting*, unpublished report no. 17672.
Delano-Smith, C. and R. J. P. Kain, 1999, *English Maps: A History.*

Foard, G. 1995, *Naseby*
Foard, G. 2001, 'The Archaeology of Attack: Battles and Sieges of the English Civil War', in T Pollard and P Freeman, *Fields of Conflict: Progress and Prospect in Battlefield Archaeology*
Foard, G. 2006, *Lead Bullets from Hadley Wood, Barnet*, unpublished report in project archive
Foard, G. 2012, *Battlefield Archaeology of the English Civil War*, 150-1.
Foard, G. 2017, 'Lead bullets', IN Colin J M Martin, 2017, *A Cromwellian Warship wrecked off Duart Castle, Mull, Scotland, in 1653*, Society of Antiquaries of Scotland, 171-7
Foard, G., in preparation, *Investigations on Hastings battlefield 2011-13*.
Foard, G. and R. Morris, 2012, *The Archaeology of English Battlefields.*
Foard G. & Curry A., 2013, *Bosworth.*
Gregory's Chronicle, in *The Historical Collections of a London Citizen in the Fifteenth Century*, ed. J. Gairdner, Camden Society, 1876, 213–4.
Gough, *Camden's Britannia*, vol.1.
Hall 2014, *The Open Fields of England*
Hammerson, M., 2009, *Historic Highgate Wood.*
Hammond, P., 1990, *The Battles of Barnet and Tewkesbury.*
Harper, C. G., 1922, *The Great North Road.*
Hildred, A. (ed.), 2011, *Weapons of Warre: The Armaments of the Mary Rose.*
Hodges, G. 1989, *Ludford Bridge and Mortimer's Cross*
Hutton, W., 1788, *The Battle of Bosworth Field.*
Kempe, A.J., 1844, 'Notes on battle fields and Military Works: No1 Barnet Field.', *Gentleman's Magazine,* 249-255.
Kerling, N., 1973, *Cartulary of St Bartholomew's Hospital.*
Lysons, D., 1795, *The Environs of London: Volume 2, County of Middlesex*, British History Online http://www.british-history.ac.uk/london-environs/vol2 [accessed 9 July 2020].
Marcham W. Mc Beath and F. Marcham, 1929, *Parish of Hornsey.*
Machiavelli, N., 1521, *The Art of War.*
National Army Museum 1995, *Battlefield Register Report: Barnet 1471.*
Norden, J., 1593, *Speculum Britanniae: the First Parte: an Historicall, & Chorographicall Discription of Middlesex.*
Norden, J., 1598, *Speculi Britaniae Pars: the Description of Middlesex and Hartfordshire.*
Ogilby, J., 1675, *Britannia.*
Oman, C., 1898, *The Art of War in the Middle Ages.*
Partida, T., D. Hall, and G. Foard, 2013, *An Atlas of Northamptonshire: The Medieval and Early Modern Landscape.*
Pollard T. & N. Oliver, 2002, *Two Men in a Trench.*
Ramsay, J., 1892 *Lancaster and York.*
John Rastell, 1529, *The pastyme of people.*
Robinson, 1823, *The History and Antiquities of Enfield.*
R. Rutter, 2004 'Printing, Prophecy, and the Foundation of the Tudor Dynasty: Caxton's Morte Darthur and Henry Tudor's Road to Bosworth', 128-130 in Risden, E.L., *Prophet Margins*.
Spencer, D., 2019, *Royal and Urban Gunpowder Weapons in Late Medieval England.*
Stow, J., 1603, *Survey of London*, (ed) C. L. Kingsford 1908, www.british-history.ac.uk/london.
Stow, J., 1615 *Annales or Chronicles of England.*
Thomas…. *The Great Chronicle of London,* eds. A H Thomas and I D Thornley

T. Thornton, 'The Battle of Sandeforde: Henry Tudor's Understanding of the Meaning of Bosworth', *Historical Research* 78, 2005, 436–42.
VCH, 1976, *Middlesex*.
Vegetius, *Epitome of Military Science*, ed. N.P. Milner, 2nd edn, 1996
Visser-Fuchs, L, 1988, 'Ricardian Riddle: the Casualty List of the Battle of Barnet', *The Ricardian*
Warren, B., 2002, 'The Chapel for the Dead of the Battle of Barnet', *J of Potters Bar and District Historical Society*, 11.
Warren, B., 2009, *Reappraisal of the Battle of Barnet 1471.*
Westgarth, M., 2009, *Biographical Dictionary of Nineteenth Century Antique and Curiosity Dealers.*
Wilson, S., 2015, *Old Fold Manor Golf Club. Archaeological Metal Detector Survey*, Unpublished client report.

Primary Sources

Arrivall
Historie of the Arrivall of King Edward IV, A.D. 1471 ed. J Bruce, 1838, p18

Arrivall, Short version
'Edward IV's Memoir on Paper to Charles, Duke of Burgundy. The so-called 'short Version of the Arrivall' edited by Livia Visser-Fuchs, *Nottingham Medieval Studies*, vol 36, 1992.

Von Wesel
A letter written on 17 April 1471 by Gerhard von Wesel, a Hanseatic merchant in London. While not present at the battle his knowledge is likely to have been based on eye-witness reports. It provides the greatest tactical and topographical detail for the battle. It is written in Rhenish German influenced by Dutch and Adair considered it posed substantial problem for translation.
Adair, John, 'The Newsletter of Gerhard von Wesel, 17 April 1471' Journal of the Society of Army Historical Research xlvi (1968) p.65-9.
Hannes Kleineke, Gerhard von Wesel's Newsletter from England, 17 April 1471, The Ricardian Vol. 16 2006 (http://www.richardiii.net/downloads/Ricardian/2006_vol16_kleineke_gerhard_von_wesel.pdf) Kleineke retranslated the published transcription of the original German given in G. von der Ropp, ed., Hanserecesse, 1431-1476, vol. 6, Leipzig, 1890, pp. 415-18, correcting a few minor errors and omissions in Adair.

Crowland continuation: third continuation 1471-76

Warkworth
Wakworth, J., *A Chronicle of the First Thirteen Years of the Reign of King Edward IV*. Ed. J.O. Halliwell, 1839.

Commines
Mémoires by Philippe de Commines, ed. D Godefroy and Llenglet du Fesnoy, 4 vols, 1747.

Michael Jones, 1972, 'Philippe de Commynes' (Penguin) translation of the Memoires of Phillipe de Commines is available at http://www.r3.org/on-line-library-text-essays/michael-jones-philippe-de-commynes-memoirs/
an early version is available at
https://ia700401.us.archive.org/31/items/memoirsofphilipd01comm/memoirsofphilipd01comm.pdf p.200-201
https://ia600507.us.archive.org/31/items/recueildescroniq05wavr/recueildescroniq05wavr_bw.pdf

Waurin
Waurin, J., *Anchiennes Croniques d'Engleterre*, ed. E. Dupont, 3 vols, Société de l'Histoire de France, Paris, 1858-63, 212-213

Waurin, J., *Recueil des Chroniques D'Engleterre* ed. W Hardy and E Hardy, 1891.

Brief Latin Chronicle
'A brief Latin chronicle', in *Three Fifteenth-Century Chronicles*, ed. J. Gairdner, 1880, pp. 164-185 http://www.british-history.ac.uk/camden-record-soc/vol28/pp164-185

Great Chronicle of London
The Great Chronicle of London, eds. A H Thomas and I D Thornley, 1938, p216.

Chronicles of London
'III - Vitellius A XVI' from *Chronicles of London*, ed. C.L. Kingsford, 2015, p.185

Paston Letters
Paston Letters and Papers of the Fifteenth Century, ed. N. Davis, 2004, vol 1, p. 438 (letter 261).

Robert Fabyan
The New Chronicles of England and France, reprinted 1811, p.661.

Polydore Vergil
T*hree Books of Polydore Vergil's English History*, ed. H. Ellis,Camden Society, 1844.

Edward Hall
Hall's Chronicle, 1809, p295.

Holinshed
Holinshed's Chronicles, ed Harrison & Stanyhurst 1808 vol 3, 312.

Proclamation
Calendar of Close Rolls, Edward IV, vol.2, 1468-1476, p.703

Molesmes's letter
Livia Visser-Fuchs, 'Ricardian Riddle: the Casualty List of the Battle of Barnet', *The Ricardian* No. 100 Vol. 8 March 1988

Other newsletters

Various newsletters report the battle which, although none give significant detail, several have appended a list of dead
Livia Visser-Fuchs, 'Edward IV's memoir on paper to Charles, Duke of Burgundy', *Nottingham Medieval Studies*, vol. 36, 1992, pp. 167-227;
Livia Visser-Fuchs, 'Ricardian Riddle: the Casualty List of the Battle of Barnet', *The Ricardian* No. 100 Vol. 8 March 1988.
Antonia Gransden, *Historical Writing in England*, vol. 2, 1982, pp. 249, 261-65, 481-84, 487-89.