

# The Viking Barrow Cemetery at Heath Wood, Ingleby, Derbyshire

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*THE CEMETERY at Ingleby, Derbyshire, is the only known Scandinavian cremation cemetery in England. The unique nature of the site makes it an important source of information for Viking pagan graves in the Danelaw, but also makes its interpretation difficult. The fragmentary nature of the finds and the sketchy reports of the excavations of the 1940s and 1950s has led to limited discussion of the site. The proximity of the cemetery to the important and complex discoveries at Repton now gives it added significance. As a possible pointer to the origins and ideologies of Danes in the East Midlands, Ingleby is of critical importance. This paper reviews previous work on the site, presents the principal results of a new earthwork survey, and proceeds to discuss Ingleby in the light of what is known of other Scandinavian burials in England. The survey has shown that the apparent clustered distribution of the barrows within the cemetery is real and not the product of differential survival; it has also indicated that some barrows were built with encircling ditches whilst others very clearly were constructed without. It is argued that many of the Ingleby graves involved a burial rite in which the deceased were cremated upon sections of planking derived from boats, and it suggested that this rite should be seen as a token form of ship burial.*

This article is the result of an informal, *post hoc*, collaboration between the Royal Commission on the Historical Monuments of England (R.C.H.M.E.) and the Department of Archaeology at the University of York. It began life as two unconnected pieces of research. Early in 1993 R.C.H.M.E. conducted an earthwork survey of the Scandinavian cremation cemetery in Heath Wood, Ingleby, Derbyshire (SK 342259) at the request of English Heritage, whilst at the same time J.D.R. and L.R. were formulating new ideas about the origins and nature of the burial rite practised at Ingleby. When the scope of the other's researches became known to either party, it seemed sensible to co-operate in producing the present article and thus bring together in one place both new data and fresh ideas on the form and nature of this important site.

## PART I

### SITE LOCATION

The barrow cemetery at Ingleby occupies rising ground on the S. side of the Trent valley, 10.5 km from Derby (Fig. 1). It lies at the centre of a 14 ha block of

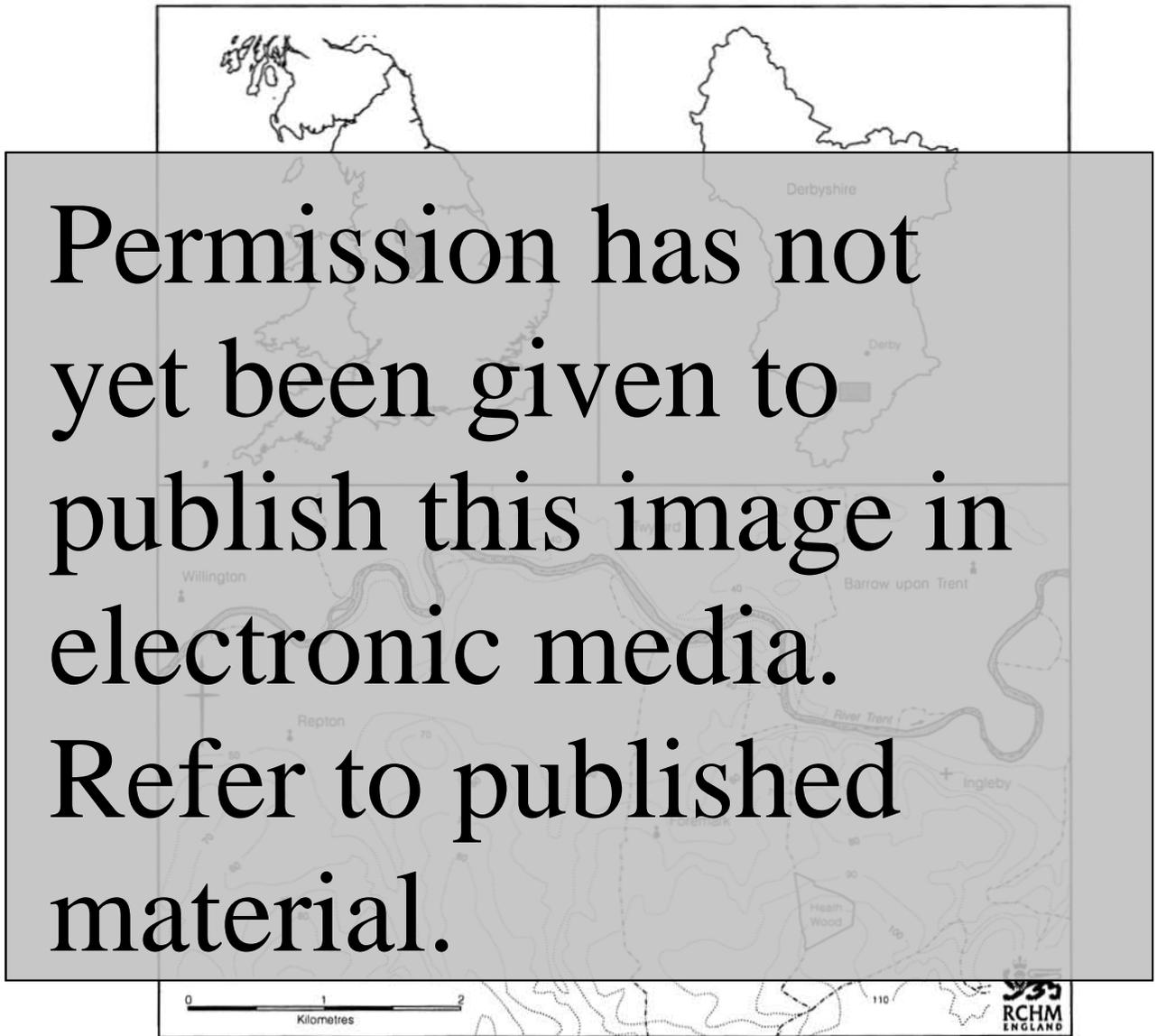


FIG. 1

Location of barrow cemetery at Heath Wood, Ingleby; boundaries shown are those of the modern civil parishes, contours in metres (R.C.H.M.E., © Crown copyright 1995, based on Ordnance Survey mapping with permission)

woodland known as Heath Wood on the W. edge of Ingleby parish, but in earlier times would have commanded impressive views northwards. Although not so immediately apparent on the skyline without its present spire, the Anglo-Saxon church at Repton c. 4 km to the NW. may also have been visible from the site. The cemetery probably originally comprised 59 barrows although of these two have

been levelled and several others severely degraded following excavations between 1941 and 1955. Until recently the wood formed part of the formal parkland setting of nearby Foremark Hall, but is now owned by the Church Commissioners who lease it to the Forestry Commission.

#### PREVIOUS WORK

In total twenty or approximately one third of the mounds in the cemetery have been examined by excavation on three separate occasions. Thomas Bateman records more than 50 mounds, 21–30 ft. (6.4–9.1 m) in diameter located near to Foremark Hall. He opened five on 22 May 1855, and found that each covered the site of a funeral pyre, upon which calcined human bones remained as they had been left by fire. Upon this ashy floor:

were accumulated stones bearing marks of fire, which had been first thrown on the glowing embers, and over these earth was heaped to form the bowl-shaped mound.<sup>4</sup>

The only finds recorded by Bateman were two small iron objects, one possibly a pin. No record of the position of the barrows opened by Bateman survives, although the R.C.H.M.E. survey has identified one barrow (mound 16) which on the basis of its earthwork form can be said to have been opened but which cannot be linked to an otherwise documented excavation.

The site was referred to in *V.C.H. Derbyshire* at the beginning of this century in conjunction with other pagan Anglo-Saxon cemeteries in the area, but its precise location appears to have been lost until rediscovered in 1941 by William Fraser, who also initially ascribed it to the 6th/7th centuries A.D.<sup>5</sup>

Between 1941 and 1945 the Burton-on-Trent Natural History and Archaeological Society under Camden Clarke and William Fraser excavated and published six barrows.<sup>6</sup> The mounds were trenched, usually by a 6 ft. (1.8 m) wide intervention although in some cases the central area was widened in search of a burial deposit. The mounds were made up of sand and stone, but all had been heavily disturbed by root and animal action and together with the amateur nature of the excavation technique this means it is impossible now to know whether they possessed any kind of internal structure. Of the six, two (mounds 2 and 4) appeared to be empty whilst another (mound 3) produced several pieces of metalwork and had charcoal and bone distributed throughout the body of the mound but lacked any identifiable burial. The remaining three (mounds 1, 5, and 6) all produced *in situ* central 'cremation-hearth' deposits and metalwork. The principal metal finds included a fragmentary iron sword (from mound 1), together with iron buckles, an iron strap-slide, and a bronze suspensory loop. It was the discovery of the sword that first led to the redating of the cemetery to the late 9th/10th centuries.<sup>7</sup> Clarke and Fraser claimed that the metalwork had been burnt with the cremations but this claim has since been disputed by Biek.<sup>8</sup> A survey of the cemetery was conducted by T. A. Dallman at the same time, but would appear to have been carried out at a small scale and to have been intended as no more than a location plan for the excavations: the published plan shows a total of 63 mounds but only schematically as open circles.<sup>9</sup> The accompanying report contains no detailed discussion either

of the form and inter-relationships of individual barrows or the significance of the way the barrows are distributed across the cemetery. Only the six excavated barrows are numbered on this plan.

Clarke and Fraser excavated a seventh barrow in the autumn of 1948, and issued a rather summary report on it the following year.<sup>10</sup> The excavation uncovered a central cremation-hearth deposit and various pieces of metalwork including a fragment of a second sword, again dated by Leeds to the 9th/10th centuries A.D. In the report this barrow (mound 7) is described as lying 'a few yards to the west of mound 6'.<sup>11</sup> No site plan was published, but a copy of Dallman's survey reproduced in a later article by Posnansky shows mound 7 as lying a short distance east of mound 6.<sup>12</sup> It seems likely that it is Clarke's account that is in error since no barrow exists on plan in the location he describes, and Posnansky's siting of it coincides with a barrow whose earthwork form preserves visible signs of excavation.

Posnansky's 1956 plan also indicates the position of an eighth barrow (mound 8) which he had earlier claimed Clarke and Fraser excavated over the winter of 1948-49.<sup>13</sup> Although Clarke never reported on this barrow and nowhere else is the excavation recorded, Posnansky's information presumably came to him from F. W. Munslow — one of Clarke's collaborators — with whom Posnansky says he was in touch.<sup>14</sup> The surviving form of mound 8 as recorded by the R.C.H.M.E. survey makes it clear that it has indeed been opened at some time.

Following the publication of these excavations, the cemetery was designated a scheduled ancient monument by the then Ministry of Public Buildings and Works (M.o.P.B.W.). In 1955 the Forestry Commission gave M.o.P.B.W. notice that they wished to clear fell and replant Heath Wood, and an agreement was reached whereby the Forestry Commission would clear but leave unplanted the four principal barrow concentrations in the wood defined on the basis of Dallman's survey, whilst M.o.P.B.W. excavated seven 'outlying' barrows adjudged to be those most at risk from casual damage during forestry operations. These seven were excavated over a three and a half week period by Merrick Posnansky, and the results subsequently published.<sup>15</sup> The existing barrow numbering system of Clarke and Fraser (mounds 1-8) was retained and extended to cover the new excavations (mounds 9-15). Mounds were variously quadrated (mounds 9, 11, and 12), sectioned (mound 15) or trenched (mound 13) and in one case (mound 10) the whole central area was cleared. Before excavation the mounds were generally 20-25 ft. (6.1-7.6 m) in diameter, and 1.5-2.5 ft. (0.46-0.76 m) high. Once cleared of vegetation and topsoil, they were found to contain 'false cairns' (i.e. cappings of stone) 15-20 ft. (4.6-6.1 m) in diameter overlying earth mounds 0.75-4.5 ft. (0.23-1.37 m) high, some surrounded by a kerb. In addition mounds 12, 13, and 15 were at least in part encircled by a shallow ditch. One mound (mound 14) proved on excavation to be natural. Of the other six, only one (mound 11) contained a cremation hearth and metalwork, the others being apparently empty and described as cenotaph burials. In mound 11 the false cairn covered a layer of charcoal and burnt human and animal bone *c.* 2-3 ins (0.05-0.075 m) thick. The metalwork was fragmentary, but included at least one

piece of ?silver wire embroidery compared by Elisabeth Crowfoot to parallels in 9th- and 10th-century A.D. Scandinavian contexts.<sup>16</sup> Following excavation the upstanding portions of the mounds were supposedly levelled by machine although the R.C.H.M.E. survey has found four at least in part still standing.<sup>17</sup>

The contents of all the excavated barrows are summarized in Table 1. Close analysis of bone fragments found in several of the barrows was hampered by their burnt, broken, and scattered condition. The excavators assumed that the bones had been deliberately crushed after incineration although the level of fragmentation — few bones exceeded 70 mm in length — is comparable with Anglo-Saxon cremations and is consistent with cremation, collection, and post-depositional disturbance.<sup>18</sup> The human skeletal remains are thought to be derived from single adults. Bone from mounds 5 and 6 was tentatively attributed to mature females; in all other cases it was impossible to attribute sex on skeletal grounds. The animals identified included cattle, sheep, and dog, and possibly horse and pig.

TABLE I  
THE INGLEBY MOUNDS

<i>Mound</i>	<i>Year</i>	<i>Mound type</i>	<i>Presence / Absence of ditch</i>	<i>Number of nails</i>	<i>Grave-goods</i>	<i>Bone</i>
1	1941-45	cremation hearth			mutilated sword; ae loop; fe buckle; fe strap slide; ae frags	adult; sheep; ox; ?dog
2	1941-45	cenotaph	?			
3	1941-45	cremation but no hearth		2	fe buckle; ae frags	adult
4	1941-45	cenotaph	Y			
5	1941-45	cremation hearth		2		female?; ox; ?horse
6	1941-45	cremation hearth		6	2 fe buckles; ae strap tab; ae frags; ae ornament mutilated sword	female?; ox; sheep?; pig?
7	1948	cremation hearth		24+		
8	1948	cenotaph	Y			
9	1955	cenotaph				
10	1955	cenotaph				
11	1955	cremation hearth		3	spade iron; wire embroidery	adult; small dog?; sheep?
12	1955	cenotaph	Y			
13	1955	cenotaph	Y			
14	1955	natural				
15	1955	cenotaph	Y			

The 1955 excavations also revealed that mounds 9 and 12 overlay a substantial linear ditch of V-section, up to *c.* 1 m deep and *c.* 2-3 m wide. No surface trace of this ditch was found during the R.C.H.M.E. survey. Some twenty pieces of hand-made pottery were found in the ditch fill under mound 9, including two rim sherds

which were drawn and published by Posnansky as well as a number of fragmentary body sherds.<sup>19</sup> Both rims appear to represent bowls with slightly everted rims; re-examination of the sherds suggests that one has a groove running round the outside of the rim *c.* 1.5 cm below the lip. The fabric is gritty with inclusions of coarse angular quartz, and occasional voids. The sherds are poorly fired, dark grey brown on the inside and buff to pinkish brown on the outside. The finish is smooth to slightly burnished. These sherds were examined in 1955 by Gerald Dunning, David Wilson and J. R. C. Hamilton but could not be dated.<sup>20</sup> A recent assessment of the evidence for Anglo-Saxon Derbyshire concludes that the sherds are unlike any Anglo-Saxon pottery from the region and are probably prehistoric.<sup>21</sup> However, the pottery also includes an out-turned wheel-thrown rim in a cream gritty fabric with micaceous flecks. Unfortunately, since this sherd was not published in 1956, there must be some doubt about its association with the other pottery.

The finds from the 1941-49 and 1955 excavations went originally to Burton-on-Trent Museum, but have since been transferred to Derby Museum, accession number DBYMU: 1985-225; the two sword blade fragments are catalogued separately as DBYMU: 1987-590/1-2. However, some of the finds have gone missing since they were published, notably the pommel and guards of the swords. Derby Museum does retain the pottery, flints and other metal objects, as well as some samples of cremated bone. They also hold X-ray plates of the iron objects which reveal detail not apparent from the published drawings. The sword from mound 7 has also never been published. Unpublished plans of the 1941-45 excavation are held by Repton School Museum.<sup>22</sup> Neither of the two metal objects found by Bateman last century is listed in the catalogue for that part of the Bateman Collection later purchased by Sheffield Museum and it is unlikely that they now survive.<sup>23</sup>

## PART II

### THE EARTHWORK SURVEY

The barrow cemetery is a scheduled ancient monument, number Derbyshire 101.<sup>24</sup> In 1992 English Heritage asked R.C.H.M.E. to conduct an earthwork survey of the cemetery in advance of proposed tree-thinning operations by the Forestry Commission. The survey was carried out at a scale of 1:1000 between February and March 1993. Its purposes were twofold: to produce a detailed plan of the cemetery to replace that made by Dallman in the 1940s, and to attempt to define the cemetery's overall extent. The survey therefore took in the whole area of Heath Wood in order to identify evidence of past land-use which might have affected the present survival and distribution of barrows. Only that part of the survey that relates to the cemetery is shown in Fig. 2. The original plans and written report<sup>25</sup> form part of the full site survey archive which has been deposited in the National Monuments Record (N.M.R.) curated by R.C.H.M.E. under the collections reference 876644, where it is available for public consultation upon request.<sup>26</sup>

Before the survey only the fifteen mounds excavated this century had been numbered, leaving 48 of those recorded by Dallman without a unique identifier.

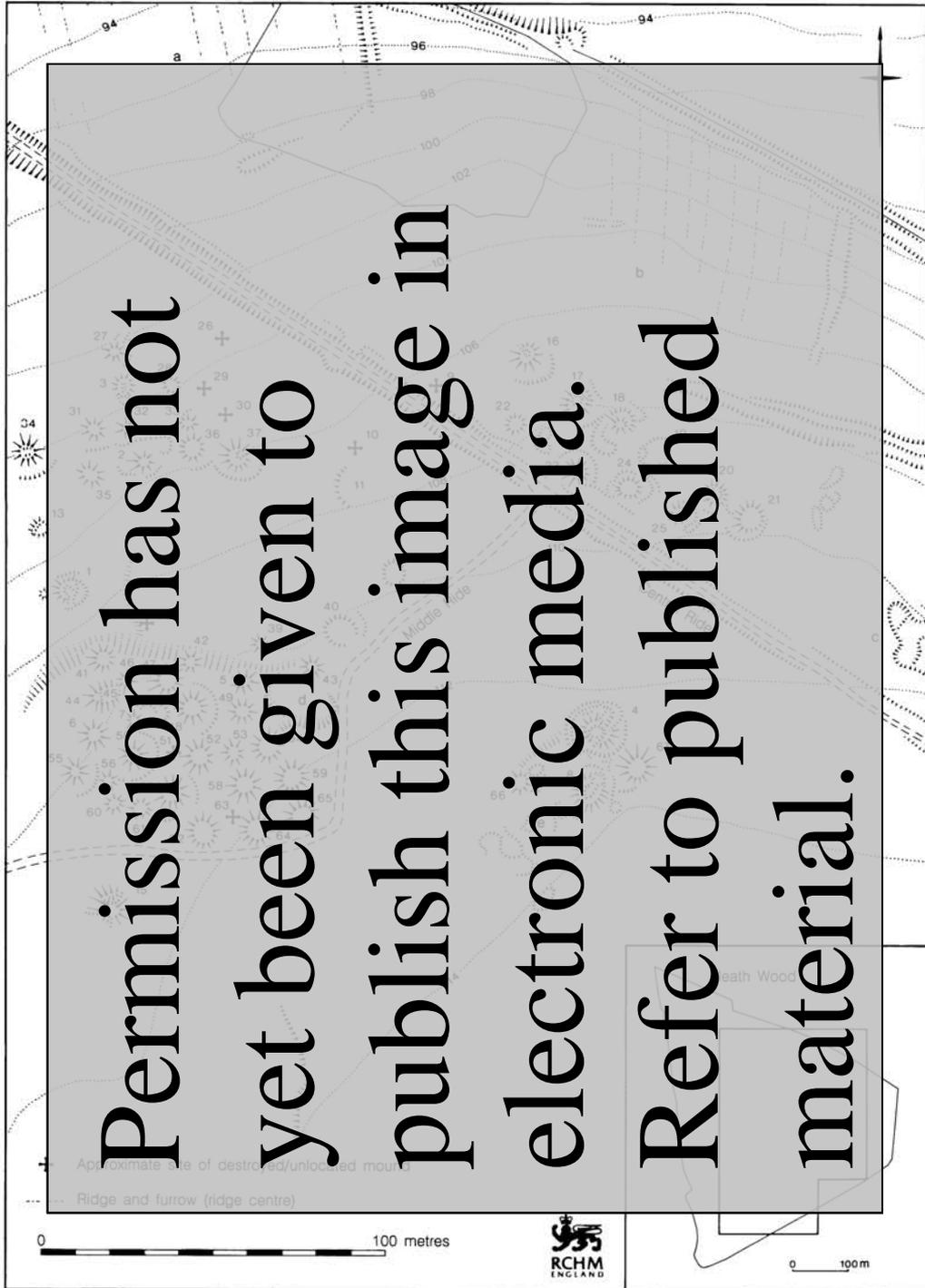


FIG. 2

Extract from R.C.H.M.E. site survey of Heath Wood, Ingleby, including complete barrow numbering system (R.C.H.M.E., © Crown copyright 1995)

The existing numbering sequence has therefore been extended to cover all the mounds shown on the 1946 plan plus others identified for the first time during the survey. Of the 63 barrows claimed by Dallman, one (mound 14) has already been proven by excavation to be natural. The survey has thrown considerable doubt on the correct identification of a further four (mounds 29, 30, 38, and 51) and has failed to locate another two (mounds 26 and 63) whose former existence must also be doubted. The number of barrows correctly identified by Dallman, therefore, is probably 56. To these can now be added three barrows identified for the first time in 1993; some doubt must attach to the correct identification of a fourth newly-recorded mound (mound 22). The most likely total of barrows in the cemetery is thus 59. Of these, two (mounds 9 and 10) seem to have been totally destroyed following excavation. Detailed descriptions of all barrows and discredited mounds are included in the archive site report.<sup>27</sup>

#### CEMETERY LAYOUT AND DEVELOPMENT

The 59 barrows are distributed across the cemetery in neither a random nor uniform way, but quite clearly cluster into four distinct spatial groups with only a few isolated barrows lying between these groups (Fig. 2). Before this distribution can properly be called clustered, however, we must be clear that it is real and not the product of differential survival. Indeed one of the questions the survey was designed to answer was whether further barrows once existed in the wood, but have been destroyed before they could be recorded this century.

The survey strongly suggests that the current barrow distribution is real. The evidence for this comes from the form of the surviving barrows, which show no sign of damage by ploughing even though the S. ends of two truncated furlongs of medieval/early post-medieval ridge-and-furrow ploughing ('a' and 'b' on Fig. 2) were found within the present boundaries of Heath Wood N. of the cemetery. If ploughing had ever taken place in the open areas within the cemetery, or encroached closer to the outside, it is most unlikely that the extant isolated barrows would have survived intact while others around them were completely destroyed, or that signs of plough damage would not now be visible on barrows at the edges of the various groups. A second major destructive process that might be anticipated is quarrying for sand and stone. However, although the survey found evidence of post-medieval quarrying within the wood E. of the cemetery (the W. edge of which is visible at 'c' on Fig. 2), what little quarrying there is close to the cemetery is small-scale and shallow, and seems best interpreted as the possible source of some of the material with which to build the barrows ('d' and 'e' on Fig. 2). In short, although there is evidence of quarrying within the wood, there is no evidence of it in the immediate area of the cemetery sufficient to account for widespread destruction. If barrows have been lost, either through ploughing or quarrying, such destruction should have been confined to the cemetery's periphery, which would have the effect of reinforcing not negating the observed clustered distribution. The meaning of this clustered distribution is less clear. It is possible, for example, that each barrow group represents the separate burial ground of a discrete

family/kinship unit within the larger community. Indeed there is some evidence within the SW. group in particular that certain barrows acted as focal points around which others were sited. Alternatively the clustering may be entirely a chronological artefact.

The survey has also shown that some barrows in the cemetery were constructed with an encircling ditch and some without. It has been suggested above that shallow quarrying in the immediate vicinity of the cemetery may be contemporary and the source of material with which to construct the ditchless barrows. In several cases the ditches as they survive on the surface are extremely slight affairs and it is possible that others have silted up completely. But excavation evidence supports the existence of the two forms of barrow: Posnansky records that three of the six barrows he excavated in 1955 were in part encircled by a shallow ditch (mounds 12, 13, and 15), whilst he found no trace around the other three. Clarke and Fraser do not mention ditches around any of the eight barrows they excavated, but the survey has shown that mounds 4 and 8 quite clearly have ditches, and mound 2 possibly so.

The significance of this dichotomy in barrow form is uncertain. It is possible given the incomplete nature of the ditches excavated by Posnansky that the ditch was viewed as nothing more than a convenient quarry to construct the mound. However, Posnansky has postulated that those barrows lying towards the periphery of the cemetery are probably later than those at the core.<sup>28</sup> Furthermore, since the six barrows he excavated were all away from the core, and of these five lacked any evidence of interment, he suggested that these 'cenotaph' barrows were late and marked a phase of conversion from pagan to Christian beliefs, represented by the raising of heathen monuments to nominally Christian Danes buried elsewhere. In support of this theory he observed that more care seemed to have been exercised in the building of the mound/cairn structure in the cenotaph barrows than in those overlying cremation hearths, and that this might represent a diversion of the energy that was formerly expended in the burial rite to the finished memorial instead. Although Posnansky does not include the presence of a ditch as part of his calculation of the degree of care taken in the construction of the barrow, it is interesting to note that of the eight cenotaphs recorded through excavation, six had or possibly had ditches, whilst of the six barrows producing evidence of interments none seems to have had a ditch (Table 1).

Whilst Posnansky's theory that the cemetery contains burials both of a pagan and semi-Christian nature is attractive, his assertion that the cenotaph barrows are late in the sequence and lie away from the core of the site is not supported when examined against the evidence. For example, three barrows which might be said to be on the periphery (mounds 1, 3, and 6) have produced evidence of burial. Another barrow at the periphery (mound 8) which may initially seem to support Posnansky's thesis in that it is included in Table 1 as a cenotaph, must be treated with caution. Its empty nature is an assumption since the results of the 1948-49 excavation have never been published. In the absence of any written evidence on the form of this barrow before excavation, it is even possible that it is one of those opened by Bateman a century earlier and the source of one of the two iron objects

he reports to have found. If the suggested correlation between ditched barrows and cenotaphs is correct, then the earthwork survey too has produced evidence which does not fit Posnansky's developmental model. The survey has shown that four of the unexcavated barrows in the SW. barrow group are ditched (mounds 48, 50, 55, and 57) and demonstrably *predate* adjacent ditchless barrows (e.g. mounds 56 and 61 which overlie the ditches of mounds 50 and 57 respectively). Moreover, the layout of this part of the cemetery would suggest that these four barrows are early in the development of the group as a whole, and have served as the focus for others around them which lack any directly observable stratigraphical relationship (Fig. 2).

Taken together the available data would better fit an alternative developmental model for the cemetery. In a community undergoing religious conversion it is probable that both old and new beliefs and practices will for a time co-exist. At Ingleby, therefore, it is as likely that some (Christian) cenotaph barrows will predate burials carried out in the full pagan manner, as *vice versa*. On this model we might expect that the arrangement and development of the cemetery would be far more complex, and dependent on factors including kinship to others in the cemetery and/or the status of the deceased.

### PART III

#### THE DATE OF THE CEMETERY

The dating of the mounds at Ingleby is based upon two swords and a fragment of wire (*Ösenstitch*) embroidery. Although the swords have been identified as examples of two different Petersen types, this does not make them chronologically incompatible.<sup>29</sup> The swords and embroidery point to usage of the cemetery in the late 9th/early 10th centuries. F. T. Wainwright has argued that the cemetery represents a considerable period of Danish settlement throughout the surrounding countryside.<sup>30</sup> As we have seen, Posnansky proposed that the cenotaph mounds may belong to a phase of conversion when an overlapping of old pagan beliefs and incoming Christian ideology could have resulted in the raising of heathen monuments to nominally Christian Danes buried elsewhere. The occurrence of Scandinavian-type burials and stray finds in churchyards throughout the Danelaw has not only led to speculation on the rapidity of the Danish conversion but also highlights the possibility that there may be many more burials of Christianized Danes in English churchyards.<sup>31</sup> The model of gradual growth and expansion of the Ingleby cemetery over several years therefore provides a convincing explanation of the archaeological discoveries made by Clarke, Fraser and Posnansky, and indeed the new survey evidence seems to support this model by demonstrating horizontal stratigraphy between barrows.

#### PARALLELS

Ingleby is still the only known Viking cremation cemetery in England, although there are several possible individual cremation burials. At Hesket in the Forest (NY 469455) a layer of charcoal, cremated bones, and ashes was discovered

lying on a bed of sand under a barrow which was removed during straightening of the main Carlisle–Penrith road in 1822. The cairn was about 22 ft. (6.7 m) in diameter; the burial at the centre was covered with large stones, in turn covered by smaller ones.<sup>32</sup> It was reported by Cowen that all the bones were of animals and that no human skeleton was recovered, although the comparatively rich grave-goods comprised a sword, two spears, a shield, an axe, a horse-bit, a pair of iron spurs, an iron sickle blade, a whetstone, two small iron buckles, and an antler comb and case.<sup>33</sup> The sword, shield boss, and bridle bit were all burnt, suggesting that the weapons and a horse may have been placed on the cremation pyre.<sup>34</sup> The sword had been deliberately mutilated before being placed in the burial. Both swords from Ingleby were also broken in a manner consistent with deliberate mutilation. The intentional ‘killing’ of weapons also occurs in Viking graves at Ballateare on the Isle of Man, at Islandbridge, Dublin, and in Scandinavia.<sup>35</sup> Viking burials on the Isle of Man, but only at Hesketh in England, also share the presence of cremated animal remains with the Ingleby burials and it was a common Scandinavian practice to provide animals as grave offerings. The quantity of animal bone surviving at Ingleby is no more than would be accounted for by joints of meat at funeral feasting, although the presence of dog cannot so easily be explained.

TABLE 2  
BARROW CREMATION CEMETERIES IN NORTH JUTLAND, INCLUDING DETAILS  
OF GRAVE-GOODS

<i>Site</i>	<i>No. of barrows</i>	<i>Barrow types</i>	<i>Date</i>	<i>Grave-goods</i>
Åsted	<i>c.</i> 30	destroyed	<i>c.</i> 800	glass beads; whetstone
Kirkelund	<i>c.</i> 27	triangular; oblong; circular	800–25	rivets; slim nails; iron mounts
Ris Fattiggård	<i>c.</i> 116	all shapes cenotaphs	8th–10th centuries	oval brooch; nails; iron rivets; iron clamp; silver wire
Hørby	<i>c.</i> 30	circular; oblong	Viking Age	potsherds; spindlewhorl
Lindholm Mark	5 ship settings	4 cremations 1 cenotaph	Viking Age	iron rivets; gold wire; potsherds; iron brooch
Øsløs	<i>c.</i> 30–40	circular; oblong	Viking Age	potsherds; glass beads; iron fragments; oval brooch
Højstrup	37	circular; oblong	10th century	potsherds; bead; iron fragment; spindlewhorl

A second barrow was also examined in 1822 at Claughton Hall (SD 513425). In this case a sword, a spearhead, an iron axe and hammer head, a Carolingian silver mount, and a pair of tortoise brooches (probably wrapped in cloth and enclosing two beads and a tooth) were found in a sand mound.<sup>36</sup> Given the

presence of a pot containing cremated bones (since lost) and a Bronze Age axe-hammer, it has generally been supposed that this was a secondary interment in a prehistoric barrow, in which the Viking skeleton had decayed.<sup>37</sup> Edwards has made a strong case, however, in the light of Hesket, for the whole burial being a Viking cremation.<sup>38</sup> Edwards also suggests that an urned cremation found with a Viking sword at Inskip (SD 4438), only 5 miles from Claughton, might represent a third Viking cremation from NW. England.<sup>39</sup>

In Scandinavia cremation seems generally to have been more common in Sweden and Norway than in Denmark. Danish cremation cemeteries do, however, exist, especially in N. Jutland (Table 2).<sup>40</sup> These generally comprise c. 30 barrows upwards, but often contain some cenotaph mounds, as well as ship settings. Significantly, as well as glass beads and potsherds the grave-goods include iron objects, including rivets and nails. The absence of prestigious, status-conferring objects from this kind of grave in Denmark has led to the view that they belong to the lower levels of Scandinavian society. However, as Roesdahl has stressed, we know relatively little of pagan burial rites.<sup>41</sup> While exotic grave goods and large monuments could be used to convey wealth and authority, a lack of them does not necessarily indicate lower social rank. Although social and political factors may have been instrumental in determining the style of a particular burial, religious and ideological considerations, of which we are unaware, must also have been significant. Whatever the social implications of these graves, they display a strong resemblance to those encountered at Ingleby, suggesting that the Vikings buried at Ingleby may well have come from N. Jutland. Crowfoot suggested that the distinctive Scandinavian style of wire embroidery, known as *Ösenstitch*, is a S. Swedish trait;<sup>42</sup> significantly, the only similar example known from England is of a related needle-binding method, or *nålebinding*, on a woollen sock recovered from a 10th-century context at Coppergate, York.<sup>43</sup>

#### THE TOKEN SHIP BURIALS

Scandinavian parallels are also useful in the study and interpretation of the iron objects retrieved from some of the Ingleby mounds. The disturbance of the barrows and their contents was, in most cases, severe. Displacement caused by the burrowing of animals, root action, and the loose earth structure of the mounds has made an accurate re-creation of the internal layout and funerary provision of each burial impossible. Added to this, the acidity and sandy nature of the soil used in the construction of the mounds has militated against the preservation of organic matter. Clearly this is not a satisfactory foundation on which to build firm conclusions. Nevertheless, similarities between the Ingleby burials and those from Denmark invite some suggestions.

The presence of nails in five of the fifteen excavated mounds (and all but one of the cremation burials) makes them the single most common feature of interment at Ingleby so far detected. A more positive identification of their purpose and meaning would contribute a great deal to a fuller understanding of the site as a whole. If it is assumed that the nails held together or decorated some kind of

wooden object, then it should accordingly be admitted that this item either varied greatly in size or was buried in widely differing portions to produce such divergent archaeological traces. It is possible that the two nails recovered from mound 3 were derived from an object entirely different from the one represented by at least 24 nails irregularly spread about the hearth of mound 7. Leeds proposed that the larger group of nails might be the remnants of shield studs; Posnansky alternatively suggested that they might have been ornamental studs from a wooden chest.<sup>44</sup> The fact that in most instances three or less nails have been found probably better suits the burial of a fragment rather than a whole object. The Ballateare shield from the Isle of Man displays signs of deliberate mutilation, but the occurrence of intentionally broken-up or dismantled shields only interred in parts is not otherwise attested.<sup>45</sup> The extraordinary nature of the Ingleby site and the burial customs it records mean that the shield theory cannot be dismissed. Nevertheless, it is interesting that the other mound which contained a greater number of nails (mound 6), was one of those thought to be the grave of a female.

Chests were used primarily as furniture for storage or for travelling throughout the Viking Age in Scandinavia. They also had a secondary function as coffins. With lids, usually fastened by iron hinges, chests could be locked, thus combining connotations of a voyage with a theme of private property and the sanctity of personal ownership. One end of the chest found at Lejre, Sjælland had been broken in order to facilitate the insertion of a fully extended adult corpse.<sup>46</sup> The Fyrkat chest had probably undergone the same alteration.<sup>47</sup> The body in the Forlev chest was laid out with bent knees.<sup>48</sup> At York, at least four instances of Viking burial in wooden, domestic storage chests have been detected.<sup>49</sup> However, the absence of clamps, hinges, and angle-irons from the Ingleby graves makes any definite equation of nails with conjectured chests or coffins impractical.

It seems likely therefore that some of the nails recovered from the Ingleby cremation mounds came from the biers on which the occupants of the graves were burned. Iron cleats and roves have been found in Anglo-Saxon graves at Monkwearmouth and Jarrow.<sup>50</sup> At Barton-upon-Humber sixteen examples of timber coffins joined with iron clenches and roves have been found in the earliest graveyard connected to St Peter's church, dated to no later than the 9th century: 'The use of these distinctive fittings implies a "clinker-built" technique . . . in which boards were lapped and riveted together.'<sup>51</sup> The heads of iron clench nails found at Barton-upon-Humber are described as large and circular. One of the rivets from mound 7 at Ingleby had a small attachment fixed to its shank while others appeared to have been 'clenched over'. The regular association of nails with cremation burials at Ingleby points to the use of some sort of crudely constructed coffin or bier. The variation in the number of nails found in each mound may simply reflect the disturbance and corrosive qualities of the site and/or the standard of excavation.

Clench nails were commonly used to rivet together overlapping strakes to make simple coffins and burial chests, but the clinker method of construction was also employed in boat building. Birthe Kjølbbye-Biddle has identified one of the Viking Age burials discovered amongst graves excavated beneath York Minster as

a boat burial. In Burial 93 an adult male was found with 19 clenched nails lying in two parallel rows, thought to be the remains of a clinker-built platform of three oak planks caulked with wool.<sup>52</sup> Charcoal deposits from Ingleby consist almost entirely of oak.<sup>53</sup> Underneath the old church at Thorpe-by-Norwich, Norfolk, at least two rows of clenched nails were discovered with a possible Viking Age burial.<sup>54</sup> Twelve graves in the extensive cemetery at Caister-by-Yarmouth, also in Norfolk, were found to contain clenched nails, between two and thirty-seven being found in a grave.<sup>55</sup> The cemetery is generally regarded as being mid Saxon, but some of the clenched-nail burials may be later.<sup>56</sup> Developed Stamford ware was found in two graves, and a silver penny of Ecgbryht of Wessex, dated *c.* A.D. 830–35 in another. Six of the burials with clenched nails were of males; four were of females; one was an adolescent; the last was a child aged 3–4 years. In 1855 the discovery of the clenched nails of a Viking ship at Catfield, Norfolk, was reported, although no record of an accompanying burial has survived.<sup>57</sup>

It is suggested, therefore, that sections of a boat might be utilized in Scandinavian inhumation and cremation burials. It is clear from the positioning of nails in some graves that the function of lapped planks, possibly derived from ships, was not consistent. At Caister-by-Yarmouth, as in the St Peter's church cemetery, rivets were spread over the body rather than beneath it, perhaps denoting the implementation of recycled boat planks as coffin lids or grave covers. The Barton-upon-Humber clenched nail burials have also now been re-interpreted as having used boats or parts of boats as grave covers. The rites of cremation practised at Ingleby have obliterated any stratigraphic patterns which may have remained intact in inhumation burials. Close comparisons between the Ingleby nails and those retrieved from the York Minster grave, where the woollen waterproofing of the plank seams is superfluous in the context of the burial, support the idea that these Vikings were cremated on strakes taken from the sides of their ships. The great Viking army may well have brought its boats up the river Trent to Repton. Boats which were being beached and/or repaired at Repton could therefore have provided the source of the planking used in the Ingleby burials.

In Scandinavia the potency of ship symbolism, its complexity and versatility, is highlighted by the different ways in which boats were deployed in graves.<sup>58</sup> The Ladby ship, Funen, was ready for departure with its anchor stowed aboard while the Oseberg ship was securely moored and weighed down by rocks. Sometimes the corpse was laid out on deck, sometimes under a canopy or in a chamber. At Kiloran Bay, Colonsay, and at Hedeby a boat was inverted over the body. At Hegge, S. Trondheim, and in a grave in S. Schleswig, the ship had been turned upside down and placed on the roof of the grave chamber. In the Bikholberg cemetery at Kaupang closely packed graves contained parts of ships as well as complete vessels of various sizes. Stone outlines of ships were set down around cremation graves at Højstrup and Lindholm Mark. At Balladoole, on the Isle of Man, a stone ship outline also enclosed a clinker-built vessel; at Knoc-y-Doonee, also on the Isle of Man, a mound covered a boat represented by some 300 iron clenched nails.<sup>59</sup> At Birka, Sweden, 285 of the cremation burials contained clenched nails,<sup>60</sup> with a maximum of 150 nails in one, but these have been interpreted as

probably derived from boat fragments used as fuel rather than as part of the burial.<sup>61</sup> Ibn Fadlan (c. 922) stated that the poorer men among the Rus had a small boat constructed especially for their funeral pyre. The distribution and abundance of pagan Viking graves with ships or pieces of ships stresses the importance of the journey believed to be embarked upon at death and the necessity of being prepared to make it in style and comfort. The expense, labour, and time involved in the building of boats meant that even after a ship had become redundant, damaged beyond repair or worn out, portions of it might still be intact and therefore useful. Dismantled boats, readily available in riverine and coastal regions, must have represented a practical and convenient substitute for purpose-built cremation platforms. The inclusion of ship strakes in graves must also have been an intentional reference to the crucial role, both literal and symbolic, of sea-going vessels throughout the Viking world.

#### INGLEBY AND REPTON

The *Anglo-Saxon Chronicle* entry for 874 relates that: 'In this year the army went from Lindsey to Repton and took up winter quarters there . . .'.<sup>62</sup> During this period the Vikings constructed a D-shaped fortified enclosure of 3.5 acres at Repton, on the site of the early Anglo-Saxon monastery. Numismatic evidence has tended to confirm the documentary sources by dating the finds at Repton to the early 870s. F. T. Wainwright argued that 'it would be unwise to forge too close a link between the Ingleby site and the known historical fact that the Danish army spent the winter of 873-74 about three miles away at Repton'.<sup>63</sup> Although the broad dating bracket of the cemetery established by the swords would sustain a connection of this kind, Wainwright, Shetelig, and Posnansky have each tended to the conclusion that one winter was too short a time span for the raising of sixty mounds. Consequently they have set Ingleby against the post-878 settlement, rather than the short-term military presence of A.D. 873-74.

If 'geographical and chronological proximity is not sufficient to establish proof of direct relationship'<sup>64</sup> between Repton and Ingleby, corroborative archaeological evidence must be sought. Although the superior quality of the cenotaph mounds at Ingleby suggests that energy was diverted from cremation to barrow building, the mounds generally appear to have been constructed hurriedly. It is tempting to draw parallels between fragments of spade found in the S. mound at Jelling with that in mound 11 at Ingleby.<sup>65</sup> Could the mound 11 spade, like that from Jelling, reflect the massive work undertaken?

A very definite commitment to paganism is demonstrated at Ingleby by the performance of cremation rites in conjunction with mound burial and the laying out of stone kerbs. The possible use of ship strakes as funerary biers heightens the pagan character of the cemetery. This pronounced assertion of pagan beliefs and practice does not sit well with theories of stable post-878 settlement. A widespread and rapid acceptance of Christianity throughout the Danelaw by the end of the 9th century limits the chronological framework into which the strong heathen

characteristics of the Ingleby cemetery can realistically be fitted. Ingleby is clearly very different from other, religiously ambivalent, Danelaw Viking burials.

Rather than peaceful, permanent, stable settlement the pagan barrow cemetery at Ingleby seems to reflect instability and insecurity of some sort. The scale and grandeur of King Gorm's pagan complex at Jelling on the eve of the Danish conversion, as well as that of the royal ship burial at Sutton Hoo, implies that a religion may be at its most ostentatious when it is about to be eclipsed.<sup>66</sup> In this way, the Ingleby burials might represent a deliberate and physically imposing allusion to the pagan homeland of those who produced them; a statement of religious, political and military affiliation in unfamiliar and inhospitable surroundings. Ship symbolism, cremation, and mound burial convey a message of 'Vikingness' as strong as any communication of ideological beliefs.

The mystery surrounding Ingleby has been considerably enhanced by the recent rediscovery of a Viking Age mass grave at Repton where the disarticulated remains of 249 men and women have been found in a mid Saxon masonry building associated with a major royal religious centre. Although the bones exhibit evidence of trauma, little appears to have been terminal and the grave has been interpreted as that of members of the Viking great army, wiped out during the winter of 873–74 by dysentery or 'flu.<sup>67</sup> None the less, this explanation does not account for the bones' severe state of disturbance and dislocation, which may be indicative of re-interment or transference. One explanation of the empty mounds at Ingleby might be that the bodies they once contained had been exhumed and transferred to the Repton mass grave. This theory must be discounted, however, not least because the mass grave at Repton contains inhumations not cremations, but also because there is no evidence that any of the excavated mounds at Ingleby had been re-opened.

It is intrinsically likely, nevertheless, that the populations buried at Ingleby and Repton were somehow linked. The implementation of very similar techniques in the raising of grave-mounds, the building of low, 'false' cairns, the laying out of stone-settings and the digging of V-shaped ditches, reinforce the geographical and chronological proximity of the sites. With its tradition of royal Mercian patronage and its prestige as a focus of pilgrimage, Repton would have provided the perfect location for a demonstration of new spiritual convictions combined with political/military subjugation.

A more likely explanation therefore is that the empty mounds at Ingleby *were* cenotaphs, and that they commemorated those Vikings given Christian burial in the Repton graveyard. A number of accompanied burials were excavated at the E. end of the church. Although these graves were aligned E.–W. they had clear pagan attributes. The earliest was of a man aged at least 35–40, who had been killed by a massive cut to the top of his left leg. A sword had been placed at his side and he wore a silver Thor's hammer amulet at his neck. A wild boar's tusk and a jackdaw bone had been carefully placed between his thighs. A substantial post-hole at the eastern end of the grave suggests that it had been marked by a wooden post.<sup>68</sup> Those responsible for furnishing this grave were clearly maintaining several pagan traditions, despite having chosen a Christian location. It seems highly plausible

that they might also have raised a cenotaph mound in their ancestral pagan cemetery at Ingleby to commemorate the warrior laid to rest by the church. If so, then Whitelock's arguments for a rapid Danish conversion would be strengthened rather than undermined. Other graves were accompanied by knives and weapons; one contained five silver pennies which suggest a burial date in the 870s.<sup>69</sup> It is likely that these were further members of the great army which wintered in Repton in 873–74.

#### THE FORTIFICATION

The discovery of the V-shaped ditch, running N.–S. under two of the mounds excavated in 1955, adds an extra dimension to the Ingleby site. The absence of a complementary bank, the freshness of the ditch in-fill and its sharp, clean-cut sides, caused the excavator to claim that the feature remained open only a very short while before it was deliberately backfilled. He further suggested that this event took place immediately before the erection of the two barrows, and that the ditch therefore most likely represented a Danish defended position overlooking the Trent valley.<sup>70</sup> Although such a scenario seems the most plausible, it must remain an hypothesis to be tested by further investigation: the barrows provide no more than a *terminus ante quem* for the ditch which may in fact be considerably earlier. Nevertheless, the commanding position of Heath Wood would be ideal for a temporary strategic earthwork. Sites of this kind have seldom been recognized archaeologically but various references to fortified Danish encampments in the Anglo-Saxon Chronicle emphasize the potential significance of this 'most neglected subject'.<sup>71</sup> Fellows-Jensen has speculated that the comparative remoteness of Derby led to a tendency amongst Viking settlers to keep together in the neighbourhood of the burh for protection, instead of spreading out more evenly through the county.<sup>72</sup> This concentration of settlement resulted in the eventual substitution of *Deoraby* for *Norworthinge*. Could it be that the relative precariousness of early Danish settlement in Derbyshire is displayed in the pagan cemetery at Ingleby with its V-shaped ditch?

#### CONCLUSION

Ingleby's significance has generally been underestimated. This is understandable given the shortage of answers to questions which the site inevitably provokes, but difficulties of interpretation must not become an excuse for consigning Ingleby to its own convenient category, peripheral to other Viking Age burials that can be more neatly inserted into a sequence of Scandinavian settlement and Christianization.

In the light of the finds from Repton, and the re-interpretation of those from Ingleby presented here, the following sequence can now be proposed. During the second half of the 9th century a band of Vikings chose the site in Heath Wood as their burial ground. They were probably drawn to it by its proximity to the monastic site and royal burial centre at Repton, but they chose to maintain their

own cemetery. Their pagan cremation graves, including some on ships' planking, may be amongst the earliest Viking graves in the British Isles. The insecurity of their position is emphasized by the ostentation and 'Vikingness' of the burials. Subsequently, when the Viking great army came to the area, it chose to overwinter by the Trent at Repton. By this stage, under the influence of Christian burial practices, cremation was giving way to inhumation. Seeking the legitimation of the Mercian cult centre some Vikings now chose to bury their dead in the graveyard. The bodies of the great army who had died in the season 873-74 and perhaps in previous years were now gathered from graves elsewhere and placed in the mass burial deposit around the royal Mercian mausoleum. Some warriors, having accepted conversion to Christianity, were given E.-W. inhumation burials within the shadow of the Repton church tower. Nonetheless, initially at least, links to pagan traditions were also maintained and a group of cenotaph mounds were now raised in the barrow cemetery at Ingleby, perhaps alongside continuing pagan cremations. Far from being peripheral to a study of the Viking settlement of the Danelaw, it can now be seen that Ingleby represents an integral part of the acculturation process.

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## NOTES

- <sup>1</sup> Department of Archaeology, The King's Manor, University of York, York, YO1 2EP.
- <sup>2</sup> R.C.H.M.E., Darwin Building, Keele University Science Park, Newcastle-under-Lyme, Staffordshire, ST5 5SP.
- <sup>3</sup> Centre for Medieval Studies, The King's Manor, University of York, York, YO1 2EP.
- <sup>4</sup> T. Bateman, *Ten years' diggings in Celtic and Saxon grave hills, in the counties of Derby, Stafford, and York, from 1848 to 1858* (London, 1861), 92.
- <sup>5</sup> J. Ward, 'Anglo-Saxon Remains' in W. Page (ed.), *V.C.H. Derbyshire Vol. 1* (1905), 272; W. Fraser, 'Note: Anglian Pagan Cemetery at Ingleby, South Derbyshire', *Antiquaries J.*, 23 (1943), 159.
- <sup>6</sup> C. Clarke and W. Fraser, 'Excavation of Pagan Burial Mounds: Ingleby, Derbyshire', *Derbyshire Archaeol. J.*, 66 (1946), 1-23.
- <sup>7</sup> E. T. Leeds in Clarke and Fraser, *op. cit.* in note 6, 10-19.
- <sup>8</sup> Clarke and Fraser, *op. cit.* in note 6, 6; L. Biek in M. Posnansky, 'The Pagan-Danish Barrow Cemetery at Heath Wood, Ingleby: 1955 Excavations', *Derbyshire Archaeol. J.*, 76 (1956), 45. Nevertheless, visual inspection of the mound 7 sword by JDR revealed burnt bone and charcoal incorporated within the corrosion products, demonstrating its close association with the cremation deposit.
- <sup>9</sup> Clarke and Fraser, *op. cit.* in note 6, 1 ff.
- <sup>10</sup> C. Clarke, W. Fraser and F. W. Munslow, 'Excavation of Pagan Burial Mounds at Ingleby: Second Report', *Derbyshire Archaeol. J.*, 69 (1949), 78-81.
- <sup>11</sup> Clarke *et al.*, *op. cit.* in note 10, 79.
- <sup>12</sup> Posnansky, *op. cit.* in note 8, 41.
- <sup>13</sup> M. Posnansky, 'The Pagan Danish Barrow Cemetery at Heath Wood, Ingleby. A Preliminary Excavation Report', *Derbyshire Archaeol. J.*, 75 (1955), 140.
- <sup>14</sup> *Ibid.*, 143-44.
- <sup>15</sup> *Ibid.*, 140-44; Posnansky, *op. cit.* in note 8, 40-56.

- <sup>16</sup> Crowfoot in Posnansky, *op. cit.* in note 8, 51–53.
- <sup>17</sup> Posnansky, *op. cit.* in note 8, 42.
- <sup>18</sup> J. McKinley, *The Anglo-Saxon Cemetery at Spong Hill, North Elmham. Part VIII: The Cremations, East Anglian Archaeology*, 69 (1994), 84.
- <sup>19</sup> Posnansky, *op. cit.* in note 8, 49.
- <sup>20</sup> *Ibid.*
- <sup>21</sup> K. Challis and G. Kinsley, *Early Anglo-Saxon Derbyshire: Interim Report on the First Two Seasons of Derbyshire Archaeological Advisory Committee Research Trent & Peak Archaeological Trust unpublished report* (1995); Alan Vince pers. comm. It would not be surprising if there was a prehistoric enclosure under Heath Wood. Even if the pottery is prehistoric, however, it could still be residual, like various flint tools recovered from the mounds. It may be impossible to resolve the date of the ditch without further excavation.
- <sup>22</sup> A. Martinelli, *Aspects of the occupation of the Middle-Trent Valley from the Sixth to the Tenth century* (unpublished B.A. dissertation, Department of Classical and Archaeological Studies, University of Nottingham, 1984).
- <sup>23</sup> E. Howarth, *Catalogue of the Bateman collection of antiquities in the Sheffield Public Museum* (London, 1899).
- <sup>24</sup> English Heritage *County List of Scheduled Ancient Monuments: Derbyshire* (London, 1987), 20.
- <sup>25</sup> R.C.H.M.E., *Heath Wood, Ingleby, Derbys. NMR no: SK 32 NW 2. Site Report* (unpublished archive report, nd 1994).
- <sup>26</sup> R.C.H.M.E., National Monuments Record Centre, Kemble Drive, Swindon SN2 2GZ. Telephone 01793 414600.
- <sup>27</sup> R.C.H.M.E., *op. cit.* in note 25.
- <sup>28</sup> Posnansky, *op. cit.* in note 13, 143; *op. cit.* in note 8, 50–51.
- <sup>29</sup> Crowfoot, *op. cit.* in note 16; Leeds, *op. cit.* in note 7. The mound 1 sword was described by Leeds as being a hybrid between Petersen Types L and R, and the mound 7 sword was identified by him as belonging to Petersen Type H.
- <sup>30</sup> F. T. Wainwright, 'Early Scandinavian Settlement in Derbyshire' *Derbyshire Archaeol. J.* 67 (1947), 96–119.
- <sup>31</sup> D. Whitelock, 'The Conversion of the Eastern Danelaw' *Saga-Book* 12/3 (1941), 159–76; J. Graham-Campbell, 'The Scandinavian Viking-Age burials of England: some problems of interpretation', in P. Rahtz, T. Dickinson, and L. Watts (eds.), *Anglo-Saxon Cemeteries 1979* (British Archaeol. Rep., British Ser. 82) (Oxford, 1980), 379–82.
- <sup>32</sup> B. J. N. Edwards, 'The Vikings in North-West England: the Archaeological Evidence' in J. Graham-Campbell (ed.) *Viking Treasure from the North West: The Cuerdale Hoard in its Context*. National Museums and Galleries of Merseyside Occasional Papers Liverpool Museum No.5 (1992), 43–62.
- <sup>33</sup> J. D. Cowen, 'Viking Burials in Cumbria: A supplement', *Trans. Cumberland and Westmorland Ant. and Archaeol. Soc.* New Series 67 (1967), 32.
- <sup>34</sup> J. D. Richards, *Viking Age England* (London, 1991), 113.
- <sup>35</sup> G. Bersu and D. M. Wilson, *Three Viking graves in the Isle of Man* (Society for Medieval Archaeology Monograph, 1) (London, 1966), 87–88.
- <sup>36</sup> Edwards, *op. cit.* in note 32, 46.
- <sup>37</sup> Richards, *op. cit.* in note 34, 114.
- <sup>38</sup> B. J. N. Edwards, 'The Claughton burial', *Trans. Hist. Soc. Lancashire and Cheshire* 121 (1970), 109–16.
- <sup>39</sup> Edwards, *op. cit.* in note 32, 48.
- <sup>40</sup> T. Ramskou, 'Viking Age Cremation Graves in Denmark. A Survey' *Acta Archaeologica* 21 (1950), 137–82.
- <sup>41</sup> E. Roesdahl, *Viking Age Denmark* (London, 1982), 164–71.
- <sup>42</sup> Crowfoot, *op. cit.* in note 16.
- <sup>43</sup> P. Walton, *Textiles, cordage and raw fibre from 16–22 Coppergate*, *The Archaeology of York* 17/5 (London, 1989), 341–45.
- <sup>44</sup> E. T. Leeds in Clarke, Fraser, and Munslow, *op. cit.* in note 10, 80–81; Posnansky, *op. cit.* in note 8, 47. The nails from mound 7 are much smaller than the others and could be decorative studs, either from a shield or chest; the X-ray plates suggest that the ends may have been inlaid.
- <sup>45</sup> Bersu and Wilson, *op. cit.* in note 35.
- <sup>46</sup> J. Brønsted, 'Danish Inhumation Graves of the Viking Age. A Survey', *Acta Archaeologica* 7 (1936), 81–228.
- <sup>47</sup> *Ibid.*
- <sup>48</sup> *Ibid.*
- <sup>49</sup> B. Kjølbye-Biddle, 'Iron-bound coffins and coffin-fittings from the pre-Norman cemetery' in D. Philips and B. Heywood *Excavations at York Minster Volume I: Roman to Norman* (London, 1995), 489–521.
- <sup>50</sup> W. Rodwell and K. Rodwell, 'St Peter's Church, Barton-on-Humber: excavation and structural study, 1978–81' *Antiquaries J.*, 62 (1982), 314.
- <sup>51</sup> Rodwell and Rodwell, *op. cit.* in note 50, 291.
- <sup>52</sup> Kjølbye-Biddle, *op. cit.* in note 49.
- <sup>53</sup> H.S. Holden, in Clarke and Fraser, *op. cit.* in note 6, 23.
- <sup>54</sup> K. Rodwell, 'Post-Roman burials', in M. J. Darling and D. Gurney (eds.) *Caister-on-Sea. Excavations by Charles Green 1951–55*, *East Anglian Archaeology* 60 (1993), 245–55.
- <sup>55</sup> Rodwell, *op. cit.* in note 54, 253–55.
- <sup>56</sup> M. O. H. Carver, 'Boat-burial in Britain: Ancient custom or political symbol?', in O. Crumlin-Pedersen (ed.) *The Ship as Symbol* (Copenhagen, 1995), 111–24.
- <sup>57</sup> Rodwell, *op. cit.* in note 54, 253–55.

<sup>58</sup> M. Müller-Wille, 'Boat-graves in northern Europe' *Int. J. of Nautical Archaeology and Underwater Exploration*, 3.2 (1970), 187-204.

<sup>59</sup> Bersu and Wilson, op. cit. in note 35, 91-92.

<sup>60</sup> A.-S. Gräslund, *Birka IV — the burial customs — a study of the graves on Björkö* (Stockholm, 1980), 55.

<sup>61</sup> Rodwell, op. cit. in note 54, 255.

<sup>62</sup> D. Whitelock, ed., *The Anglo-Saxon Chronicle: a revised translation* (London, 1961), 48.

<sup>63</sup> Wainwright, op. cit. in note 30, 96.

<sup>64</sup> *Ibid.*

<sup>65</sup> K. Krogh, 'The Royal Viking-Age monuments at Jelling in the light of recent archaeological excavations' *Acta Archaeologica*, 53 (1982), 183-216.

<sup>66</sup> M. O. H. Carver, 'The Anglo-Saxon Cemetery at Sutton Hoo: An Interim Report', in M. O. H. Carver (ed.) *The Age of Sutton Hoo* (Woodbridge, 1992), 343-71.

<sup>67</sup> M. Biddle and B. Kjolbye-Biddle, 'Repton and the Vikings' *Antiquity*, 66 (1992), 36-51.

<sup>68</sup> *Ibid.*

<sup>69</sup> H. Pagan, 'A second parcel of pennies of the 870s from a grave at Repton' in M. Biddle *et al.* 'Coins of the Anglo-Saxon period from Repton, Derbyshire: II', *British Numismatic J.*, 56 (1986), 16-19.

<sup>70</sup> Posnansky, op. cit. in note 8, 40 and 48-49.

<sup>71</sup> J. Dyer, 'Earthworks of the Danelaw Frontier', in P. J. Fowler (ed.) *Archaeology and the Landscape* (London, 1972), 234; Richards, op. cit. in note 34, 23.

<sup>72</sup> G. Fellows-Jensen, 'Scandinavian Settlement in the Danelaw in the light of the place-names of Denmark', in *Proceedings of the Eighth Viking Congress* (Odense, 1981).