

LONG BARROWS OF NORTHERN ENGLAND; STRUCTURAL AND DATING EVIDENCE

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The long barrows of the chalk country of lowland England have been variously described as 'earthen', 'unchambered' or 'non-megalithic', to distinguish them from the stone-built chambered long barrows of the Northern and Western parts of the British Isles. Ever since the excavation of the Wor Barrow by Pitt-Rivers (Pitt-Rivers 1898, 58-135) it has been known that large timber structures occurred beneath long barrows. During the past two decades the large scale excavation of the Nutbane, Fussell's Lodge and Wayland's Smithy long barrows has provided evidence of a series of associated timber structures. It is now obvious that the building of a long barrow mound was the final act of a funeral ritual that lasted over an extended period of time. The peculiar condition of the burials in long barrows, especially the varying state of articulation, preservation and completeness, has been the subject of comment for over a century. It has been assumed that they represent people who died over a period of time and whose remains had been stored until it was decided to bury them collectively and erect the covering mound (Atkinson 1968, 89).

The excavation of the small primary long barrow of Wayland's Smithy I showed the burials laid between parallel banks of boulders which had carried a pitched wooden roof; the gable ends had been supported by massive posts set in pits at each end of the structure (Atkinson 1965, 130-1). The structural features associated with the burial area of the Fussell's Lodge long barrow were interpreted by Ashbee as a similar pitched-roof building (Ashbee 1966, 40-2). The existence of further pitched-roof buildings of this type was inferred from the study of early excavation reports (Ashbee 1966, 75-80).

BOTH
SEPARATE
AT PITVAE.

The recognition of timber structures enclosing burials within the so-called 'unchambered' long barrows has reduced the distinctions between these and the stone-built chambered long barrows of the Severn-Cotswold, Clyde-Galloway and Carlingford groups. Allowing for the adoption of local materials the chambered and unchambered long barrows are now being seen as part of an extensive North European distribution of trapezoidal and rectangular burial mounds of the third millennium B.C. (Piggott 1966, 389-90; Ashbee 1966, 45-7; Daniel 1967; de Valera 1961).

The classification of the timber structures associated with English long

barrows has recently been discussed by Piggott and a scheme based on the sequence of Nutbane and Fussell's Lodge has been established (Piggott 1966, 388-90). The following series of features are recognised:

1. A banked enclosure and probable roofed area for successive burials: Nutbane feature 1 (Morgan 1959, 35) and the gabled 'mortuary houses' of Fussell's Lodge and Wayland's Smithy.
2. A fenced enclosure: Nutbane feature 4, a small enclosure 18 ft. by 20 ft. Enclosures on a much larger scale at Fussell's Lodge and Skendleby.
3. A forebuilding: Nutbane feature 2, succeeded by the more elaborate feature 3, a building 20 ft. by 20 ft. with flanking facades. At Fussell's Lodge there was a square of four post holes and a pit immediately in front of the entrance to the mortuary enclosure and mortuary house. At Wayland's Smithy the forebuilding was represented by two rows of post holes in front of the entrance to the pitch-roofed mortuary house.

However, timber structures of these types are not a universal feature of long barrows in Southern England. Apart from an occasional posthole such timber features did not exist at the long barrows of Windmill Hill (Ashbee & Smith 1960); Beckhampton and South Street (Smith & Evans 1968); Thickthorn (Drew & Piggott 1936); Holdenhurst (Piggott 1937); Lambourn (Wymer 1966); Julliberries Grave (Jessup 1939) and West Rudham (Hogg 1939). The first four of these sites provided no evidence of having been used for burial purposes although the soil conditions were favourable for the preservation of bone.

The distribution of long barrows in Southern England continues northward into Yorkshire and Lincolnshire, with major concentrations of sites on the chalk Wolds of East Yorkshire and Lincolnshire. The distribution is further continued westward and northward by a scatter of sites into the higher hill country.

Omitted from detailed consideration in this survey will be the long cairns with megalithic chambers. These are sited on the western fringe of the Pennine Chain at Anglezark Moor in Lancashire, and in Staffordshire are the Bridestones, Biddulph Moor and Long Low, Wetton. However it is likely that the cairn plans of these sites owe much to the long barrow series especially the extremely long cairns of the Staffordshire sites.

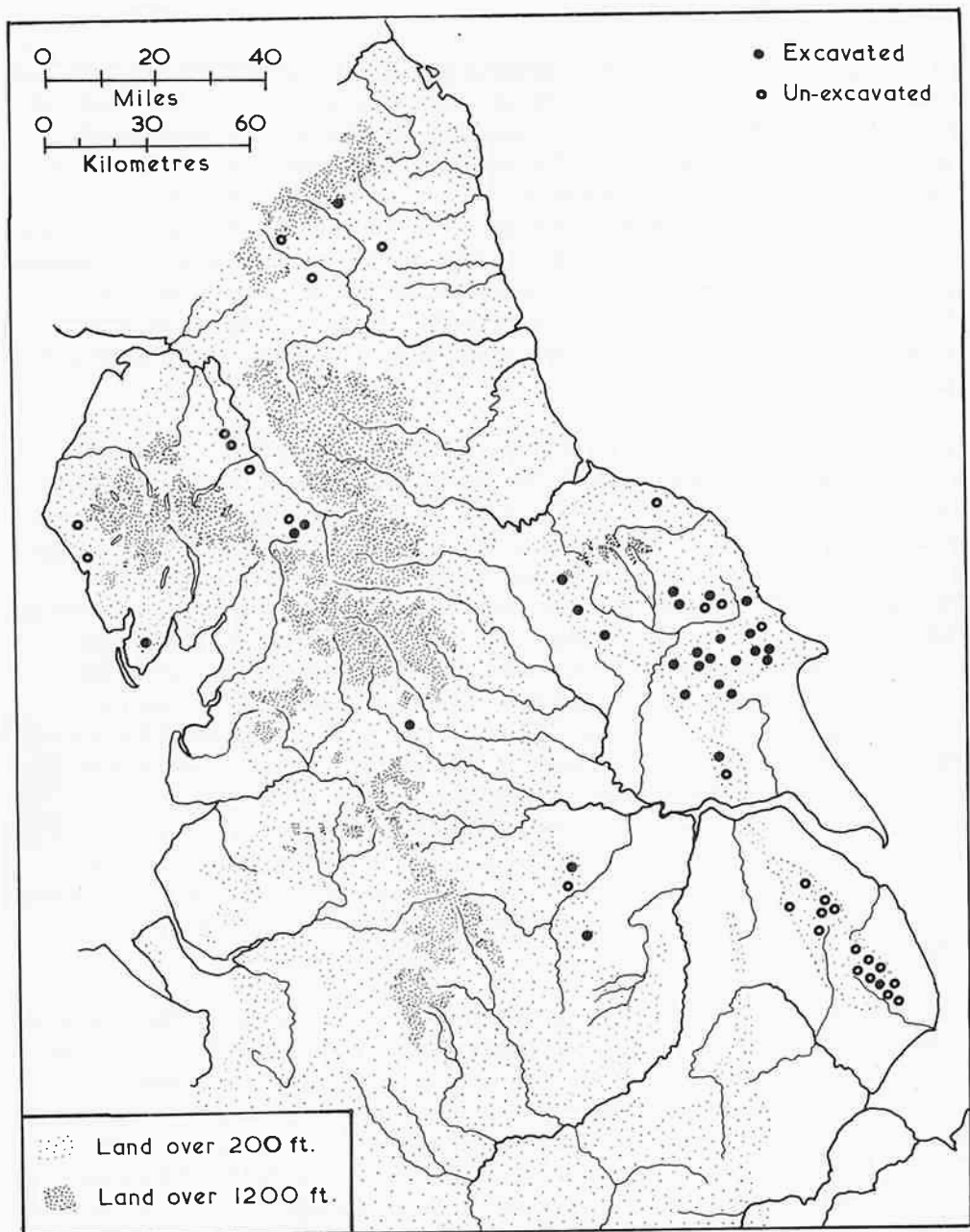


Figure 1. Distribution of long barrows.

Northern England (Fig. 1)

For the purpose of this survey Northern England comprises the ten northern counties, roughly the country north of a line from the Wash to the mouth of the river Dee. This area exhibits considerable diversity in physiography, geology, soils and climates. In the northwest the mountainous dome of the Lake District is partly composed of volcanic rocks and, like the Cheviot Hills, the northern boundary of our area, surrounded by sedimentary rocks. The central portion of the area is occupied by the Pennine Range, a dissected plateau of sedimentary rocks - limestones, sandstones, gritstones and shales. In the southeast are the lower chalk hills of the Lincolnshire and Yorkshire Wolds that overlook low-lying plains covered by soft deposits of glacial and post-glacial date.

During the Neolithic period large areas of Northern England were unsuitable for agricultural settlement. The ill-drained soils of the Pennines and Cheviots above the 1200 ft. contour were covered by extensive blanket bogs that started to form at the opening of the Atlantic period, Zone VIIa. At the lower levels fen and coastal reed swamp covered extensive areas of the Cumberland and Lancashire plains, the Humber Basin, the Vale of Pickering, Holderness and the Witham Valley. The general distribution of Neolithic cultural material shows that the preferred areas of settlement were the chalk soils of the Wolds, the limestone areas of North-East Yorkshire, Lincoln Edge, Craven, the Peak District, Low Furness and the Eden Valley. The better drained sandstone areas of the Central Pennines, the Cheviots and the Fell Sandstone Hills of Northumberland were also occupied. The survival of Neolithic field monuments, including long barrows, in these areas varies with the intensity of arable farming of the Middle Ages and recent times. In traditional pastoral farming areas, like the Pennines, Lake District and the Cheviots, sites have been mutilated or completely removed to provide stone for field walling.

The long barrow mounds are constructed of stone and earth; on the Wolds of Yorkshire and Lincolnshire, great quarry ditches along the flanks provided the chalk rock for barrow construction. In the Pennines, Lake District and Cheviots, surface-collected stones provided the material for the long cairns which are regarded as stony-country counterparts of long barrows. The majority of long barrows are concentrated on the chalk Wolds of Lincolnshire and Yorkshire. Fifteen long barrows have been identified on the Lincolnshire Wolds and they were the subject of a regional survey by C.W. Phillips (Phillips 1932) who excavated the only barrow of this group to have been explored. Some fifteen long barrow sites have been recognised on the

Yorkshire Wolds and an extension of this group consists of the long barrow sites on the corallian limestone of North-East Yorkshire. These are two sites on the Howardian Hills, two on the Hambleton Hills and six on the Tabular Hills (Elgee 1930, 40-8). An outlier of this distribution is a long barrow on the Cleveland coast at Newton Mulgrave. The eastern foothills of the Pennine Range are formed by a narrow belt of Magnesian Limestone and on this formation long barrows are recorded at Marr, Dinnington and Sprotborough, all in South Yorkshire. High in the Central Pennines of West Yorkshire is the Bradley Moor long barrow situated on the gritstone hills overlooking Airedale. A group of six long barrows is found on the Carboniferous Limestone country that forms the western side of the Eden Valley. Of this group, two long barrows in Crosby Garrett parish were excavated by Greenwell; there are unexcavated long barrows at Newbiggin and Lowther near Penrith. Near the western coast of the Lake District long barrows are recorded at Stockdale Moor, Miterdale and Skelmore Heads; the latter site on the Carboniferous limestone of Low Furness. The final group of long barrows are the sites on the southern slopes of the Cheviots, sited on sandstone, at Bellshiel Law, Devil's Lapful, Monkridge and Thorneyburn in Northumberland and Brampton in Cumberland.

The siting of long barrows on the edges of valleys or overlooking the heads of streams on the Lincolnshire Wolds was noted by Phillips (Phillips 1935 a) The same tendency is seen on the Yorkshire Wolds but the Garton Slack Barrow 37 and, a probable long barrow, Garton Slack Barrow C34 are situated on the gravel floor of a valley. Similar preference in sitings can be seen in the other groups. In the Lake District, Pennines and Cheviots, the barrows are sited between the 800 and 1000 ft. contours, but the highest site of all is the Kewick barrow at 1220 ft. above sea level on the Hambleton Hills of North-East Yorkshire.

The long barrow mounds are usually elongated mounds with a width of a third or a quarter of their length. The Heslerton Wold barrow was over 400 ft. long, Bellshiel Law is 376 ft.; these are the longest mounds, apart from the Lowther barrow with its exceptional length of 900 ft. However, there are a number of short long barrows of less than 100 ft.; Seamer Moor was 60 ft. long by 50 ft. wide; Hanging Grimston was 78 ft. by 50 ft. and Westow 75 ft. by 50 ft.; and Skelmore Heads is the smallest of all, 60 ft. long by 35 ft. wide.

The main axes of the monuments are aligned east to west with the higher, wider end usually to the east; north to south orientations are confined to seven sites with the broader end facing south. The external condition of sites

varies from district to district; all members of the Yorkshire Wold Group and most of the Lincolnshire sites have been denuded and spread by agriculture. The excavated sites of Kilham, Raisthorpe and Willerby produced a trapezoidal mound plan with squarish ends. The same outline, with steep sloping sides, is to be seen in the weathered, but unploughed, Gilling long barrow. The stone-built mounds of Bradley Moor and Bellshiel Law have a trapezoidal outline with kerbed edges; the eastern end of Bellshiel Law has a slightly convex plan.

The contour of some East Yorkshire long barrows was altered by the imposition on one end of the mound of a round barrow in the late Neolithic or Early Bronze Age. Greenwell reported a round barrow on top of the western end of the Kilham long barrow; at Garton Slack barrow 37, Kemp Howe and Helperthorpe XLIX ring ditches had been cut around and through the eastern portion of the long mound when round barrows were constructed on them. The profile of the Newton Mulgrave long barrow suggests that this also had a round barrow imposed on it. The Bradley Moor long barrow appears to have a circular cairn 70 ft. in diameter with a central stone chamber, superimposed on its eastern portion.

Details of the internal features and burials are available from less than half of the long barrows of Northern England. Most of this information comes from sites in Yorkshire, a vast proportion of it being 19th century observations. The two South Yorkshire sites of Marr and Dinnington were destroyed during agricultural clearance in the early 19th century and only briefly recorded. The sites excavated in the later 19th century in Yorkshire and Westmoreland are recorded, but the details are often vague and can be difficult to interpret, particularly as the extent of the examinations were not recorded (Bateman 1861, 211-3 and 227-8; Greenwell 1877, 448-556; Conyngham 1848, 104-5; Mortimer 1905, 102-5 and 333-5). The East Yorkshire sites of Helperthorpe, Heselton, Kilham, Market Weighton, Westow and Willerby were examined by Greenwell. Ebberston, Gilling, Kilburn and Over Silton in the North Riding were explored by Greenwell, who also excavated the two long barrows at Crosby Garrett in Westmoreland. Mortimer explored the Hanging Grimston and Helperthorpe sites and provided the earliest plans of Yorkshire long barrows. He also explored Kemp Howe, Garton Slack barrows 37 and C34 and Raisthorpe, without recognising them as long barrow sites. Of the sites explored in modern times, in the 1930's Skendleby was excavated by Phillips, Bellshiel Law by Newbigin and Bradley Moor by Butterfield. Skelmore Heads was excavated by Powell in 1957 and during the past decade seven long barrows have been excavated in East Yorkshire. Garton Slack Barrow 37, Kemp Howe and Raisthorpe

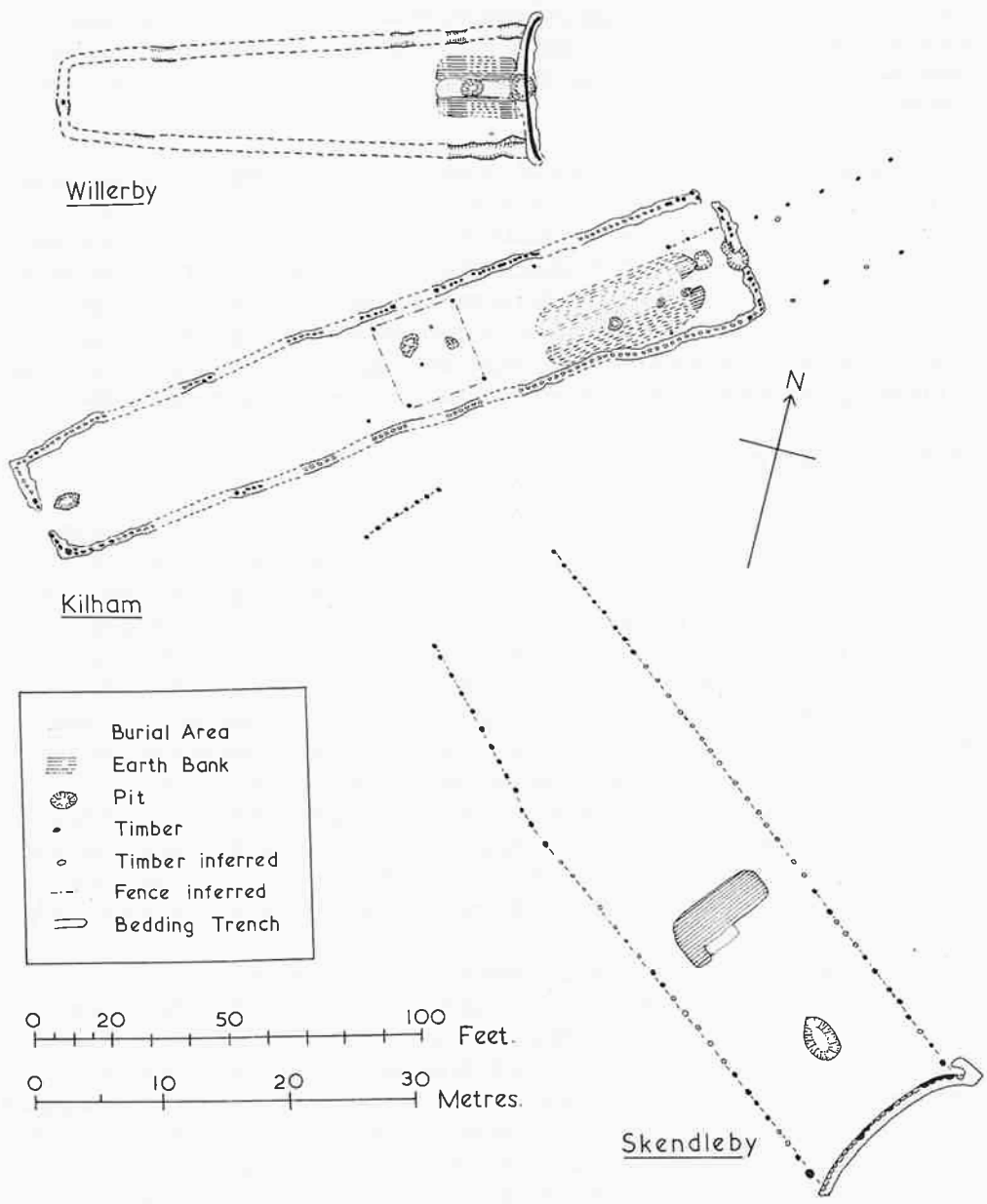


Figure 2. Pre-mound enclosures and burial structures.

have been excavated by Brewster, Seamer Moor and Heselton by Vatcher and Willerby and Kilham by the present writer. The exploration of these sites has revealed the extent of earlier excavations and shed considerable light on the excavation methods, recording and interpretation of Greenwell's and Mortimer's sites.

Any synthesis of the long barrows of Northern England must be largely based on the Yorkshire Wold sites with Skendleby, and barrows in other districts provide some features that are directly comparable. At all excavated sites the erection of a long mound of stone and earth was the last act of a sequence of constructions. The pre-mound features have been recognised by modern excavators and partially recorded by earlier excavators. The examination of the available evidence shows that each site has its own exclusive elements in planning and construction but certain basic traits can be distinguished.

Mortuary Structures (Fig. 2)

Modern excavations have established the existence of former timber, stone and ditched features pre-dating the erection of the long barrow mounds. These fall into two classes; the most numerous are the large enclosures of trapezoidal plan, later closely followed by the limits of the covering mound (Piggott's Feature 2). Smaller enclosures that have been interpreted as ritual building form the second class of structure, comparable with the fore-building of Nutbane (Piggott's Feature 3). At Willerby, Skendleby, Kilham, Heselton, Raisthorpe and Garton Slack Barrow 37 the large enclosure had a trapezoidal plan and the wider end was the focus of ritual and burial activity. The wider ends had timber-set facades but the sides were variously formed; at Heselton and Kilham upright posts were found in continuous setting, at Skendleby, posts at 5 ft. intervals, at Willerby and Garton Slack Barrow 37, open ditches and at Raisthorpe the sides consisted of stone walls.

The timber facades, set in bedding trenches, have been recognised at Skendleby, Garton Slack Barrow 37, Raisthorpe, Willerby and Heselton. Mortimer excavated similar bedding trenches at Hanging Grimston, Garton Slack Barrow C34 and his 'underground dwelling' at Kemp Howe has been confirmed as a facade bedding trench by recent excavation. Greenwell appears to have excavated one arm of such a bedding trench at Westow. When planned, the facades have a concave outline with the timbers set side by side at Willerby, Raisthorpe, Garton Slack Barrow 37, Kemp Howe, Helporthorpe XLIX and Skendleby. At Heselton, posted return walls ran back from either end of the crescentic facade for a distance of some 50 ft. Lighter posting formed the remainder of the enclosure sides and showed evidence of two

periods of construction. Straight facades are suggested by the 19th century records of Hanging Grimston, Garton Slack Barrow C34 and Westow. The floors of the bedding trenches increase in depth towards the centre, suggesting that a greater depth was required to support posting of increasing height at the centre.

The Willerby Wold enclosure, 115 ft. long by 35 ft. wide tapering to 20 ft., was narrower than the 39 ft. width of its facade. The same arrangement prevailed at Raisthorpe and Skendleby, where the enclosure was 200 ft. long and 40 ft. wide with a facade 47 ft. wide. A trapezoidal enclosure is indicated by the stone walls found by Greenwell in the Gilling long barrow; these were 41 ft. apart at the southern end of the mound and decreased to 21 ft. apart at the northern end; the extreme ends of this site were not excavated by Greenwell.

Standing apart from the concave-facaded enclosures is the square-ended Kilham enclosure. This was 195 ft. long, 35 ft. wide at the eastern end, tapering to 26 ft. wide at the western end and formed by a continuous setting of vertical posts. Entrances into the enclosure were left at the north-east corner and in the centres of the eastern and western ends. The bedding trenches had been partially dug into the silted filling of a pair of parallel ditches. The ditches were 18 ft. apart, 135 ft. long and 5 to 6 ft. deep; they were half silted up when the bedding trench was cut through them. The date and purpose of these early ditches is uncertain; however in scale they compare with the quarry ditches of some of the smaller long barrows of Southern England and it is possible that any small mound that may have existed between these ditches was swept away when the timber enclosure was erected. At the middle of the timber enclosure at Kilham was a further series of post holes just inside the continuous post setting; two opposed pairs of posts formed a square of 19 ft., centre to centre. Two further post holes and a pair of pits within this square may be connected with it and all could be elements forming a fore building. A double line of post holes ran east from the facade of the Kilham long barrow, for a distance of at least 70 ft. The northern setting was continued within the enclosure by three post holes aligned with the northern edge of the earthen bank flanking the burials. A parallel set of post holes was absent on the southern side as this position was occupied by the continuous post setting of the enclosure. However, the combination of the three post holes on the northern side and the eastern and southern sides of the enclosure left a space of 19 ft. by 9 ft. in front of the burial complex. This arrangement is comparable with the short lines of posts running forward from the burial complexes at Nutbane, Fussell's Lodge and Wayland's Smithy I, the features which have been termed 'fore-

buildings' by Piggott. At Kilham, the gap in the centre of the post setting of the eastern end of the enclosure gave access to the area of the forebuilding and burial complex. The entrance gap at the north-eastern corner of the enclosure would have provided a separate entrance into the remainder of the enclosure.

At Seamer Moor, beneath the edges of the mound, were parallel stone walls, with a cross wall at the eastern end to form a forecourt. Within this enclosure were the remains of a mortuary house of stone and timber, 25 ft. by 17 ft. The pair of walls found by Greenwell beneath the highest and widest part of the Kilburn long barrow may be the remains of such a mortuary house. These walls were each 12 ft. long, 6 ft. apart and composed of flagstones set on edge rising to $4\frac{1}{2}$ ft. high. At Kemp Howe, a pair of parallel slots immediately behind the centre of the facade were 6 ft. long and 3 ft. apart, with a hearth site between them. This may represent another ritual house site or a forebuilding to the burial area that lay to the north-west. Running south-east from the facade at Kemp Howe were two lines of post holes, aligned with the terminals of the facade, these were traced for a distance of at least 130 ft.

Burial Structures and Deposits

Burials within the long barrows of Northern England, apart from obvious secondary interments, are concentrated in a very limited space and are of a communal type. Particularly characteristic are the multiple cremated burials recognised by Greenwell during his excavations in the mid-19th century (Greenwell 1877, 487-9). The burial deposit was contained in a crematorium constructed along a narrow strip within the mound, Greenwell's mesial deposits, and the bones were covered by stacked timber and stones; the deposit was fired after the construction of the mound and the temperature produced was sufficient to convert the surrounding chalk and limestone into lime. Such cremation long barrows are represented at Garton Slack Barrow C34, Helperthorpe, Market Weighton, Rudston, Heselton, Westow, Raisthorpe and Willerby Wold, all on the Yorkshire Wolds. In North-East Yorkshire are the long barrows of Ebberston and Kilburn; an outlier of this type is a long barrow at Crosby Garrett in Westmoreland.

The crematorium deposit of burnt chalk and bones in all these long barrows was usually along the main axis, except at Rudston, where it was diagonal. The deposit was 21 ft. long at Willerby and 4 ft. wide; at Kilburn it was 20 ft. long, at other sites 30 to 40 ft. long and attaining a length of 66 ft. at Market Weighton. The crematorium was usually situated at the higher,

broader end of the mound except at Helperthorpe and Kilburn, where it was at the narrower end. The re-excavation of the Willerby Wold long barrow revealed a portion of the burnt chalk mass of the crematorium deposit which had been left unexcavated by Greenwell. The deposit was supported on either side by banks of stacked turf and chalk; disarticulated bones were scattered on the old land surface between the banks. Similar banks may be present at other crematorium sites but were not recorded by Greenwell, who would concern himself with digging out the burnt chalk. However, crematoria discovered by Mortimer in round barrows at Garton Slack were supported by turf and gravel banks. The open stacking of the chalk blocks over bones and timbers was observed at Willerby and the relationship of the burnt chalk to the covering mound of chalk rubble confirmed Greenwell's interpretation of the crematoria being fired after the construction of the covering barrow. The articulated and disarticulated bones usually rested on the old land surface but at Westow and Raisthorpe they were laid on pavements. Pits have been found beneath the crematorium deposits at most sites; those at Willerby and Westow were at the centre of the facade bedding trench under the beginning of the crematorium deposit. Similarly placed pits were recorded at Crosby Garrett, Market Weighton, Kilburn and Rudston, with one or more further pits beneath the length of the crematorium; there were four pits beneath the particularly long crematorium at Market Weighton.

The methods of firing of such crematoria are uncertain but an appropriate wind would have been clearly necessary to provide a draught. The burning of the combustible content was sufficient to convert the stacked chalk and limestone into lime. At Willerby a temperature in the region of 1200 degrees centigrade had been attained during firing, as the components of flint and chalk were fused to produce calcium silicate (Davies in Manby 1963, 201-2). In all instances the burning was observed to be the most intense near the beginning of the deposit and decreasing inwards. At Market Weighton only the first 14 ft. of the deposit had been burnt. At Ebberston the crematorium terminated in a round cairn of stones rising to the surface of the mound and at Crosby Garrett, the deposit terminated at a large standing stone.

Cremation burial occurs at other long barrow sites in other forms than the crematorium. At Seamer Moor the bodies had been cremated on a pyre in the forecourt of the enclosure. A cremation pit was found in the forecourt formed by the concave facade of Garton Slack Barrow 37; the pit was 6 ft. in diameter and had been filled in around a cylindrical liner, leaving vents running down to the bottom of the pit. At least two bodies had been cremated in this pit. A cremation pit of a similar type had been dug through the mound of the Raisthorpe long barrow in the area of the former facade. In 1969 a

third cremation pit, but without any associated mound, was excavated by T.C.M. Brewster at a site a quarter of a mile away from the Garton Slack long barrow. To this variety of burial must also belong a small stone lined pit excavated in 1969 by J.R. Earnshaw at Bridlington. Beneath the burnt timbers in the upper portion of this pit was a human skull, some neck vertebrae, and a partially polished flint axe.

Inhumation burials in long barrows are not so frequent as the cremations. At Kilham, Greenwell found a number of 'disturbed' inhumations in a ridge of chalk rubble with earthen banks on either side. Re-excavation of the site located the eastern ends of these earth banks; they were 4 ft. apart and probably, using Greenwell's description, about 55 ft. long. These at once invite comparison with the banks at Willerby; there are also pits in the space between the banks, at their eastern end and at 4 ft. and 17 ft. further west. This structure was not on the central axis of the site, but south of this line. Associated with this alignment was a line of post holes which was extended eastwards beyond the long barrow.

At Kepwick on the Hambleton Hills of North-East Yorkshire, the disarticulated remains of five individuals were scattered along the main axis of the mound 15 to 23½ ft. from the southern end of the mound. Greenwell observed that the bones had been laid on the pre-barrow soil after the turf layer had been removed; if this is a correct interpretation, the turf may have been used for banks on either side of the burial deposit.

At Skendleby the burial deposit rested on a pavement of chalk slabs, 9½ ft. long and 3½ ft. wide, situated some 30 ft. west of the facade and slightly south of the main axis of the mound. The pavement had a bank of loam enclosing it on all sides except the west, where there was a setting of boulders. Packed together on the pavement were five articulated skeletons and the dis-jointed bones of three more. A group of twelve skeletons was found together beneath the centre of the Dinnington long barrow in South Yorkshire. At Crosby Garrett Barrow CLXXIV about a dozen cremated and inhumed bodies in 'imperfect condition' were found at the south-eastern end of the mound; further skeletons were found in the body of the mound.

No burials were found at Hanging Grimston, Skelmore Heads, Gilling or Bellshiel Law. Alkaline soil conditions prevailed at the former two sites and any inhumation burials are unlikely to have been dissolved by soil acids. However, the likely burial area at Skelmore Heads had been badly disturbed in modern times. Two standing stones, projecting through the mound and 7 ft. apart, were considered to have marked the burial area at this site. The

acid soil conditions at Gilling and Bellshiel Law could have destroyed any uncremated burials at these sites.

Links between long barrows with cremation and inhumation burial rites can be seen in the structures present at the sites, and the depositing of articulated and disarticulated bones in a narrow zone along the main axis of the mound. The flanking of the burial area by earth banks, observed at Willerby and Kilham, may not have been recognised by Greenwell at other sites if he concentrated on following the burials. The pottery associated with long barrows of both rites are the wide-rimmed and shouldered bowls of Grimston Ware at Hanging Grimston, Kilham, Willerby, Kemp Howe, Raisthorpe and Skendleby sites.

Ritual

The sequence indicated at Willerby, Heselton, Kilham, Garton Slack, Raisthorpe, Kemp Howe and Skendleby shows that the sites had large enclosures with monumental timber facades standing prior to the construction of the long barrow. The burials were concentrated within a very limited area of the enclosure, were enclosed by earth banks and associated with pits. The facades of the enclosures were destroyed by fire; evidence of this is provided by the charcoal and burnt chalk in the bedding trenches at Willerby Wold, Garton Slack, Raisthorpe, Kemp Howe, Kilham, Hanging Grimston and Westow. At Willerby it was clearly established that the facade had been burnt down before the erection of the covering mound. However, at Skendleby the facade and side posts of the enclosure were buried by the long barrow mound.

Grave goods are notably absent from the long barrow burial deposits, being confined to a bone pin at Willerby, a shouldered bowl at Kilham, and a flint arrowhead and sickle fragment at Cropton. At Willerby a deposit of dirty soil with sherds and bones was found in the eastern edge of the mound and some sherds had slipped down into the cavity of the bedding trench. The nature of this material suggested that it was refuse brought from an occupation site. At Skendleby, the same origin has been suggested for a heap of dirty soil contained within a hurdle fence. The deposit covered an oval pit filled with clean chalk rubble and some loam; it was situated on the main axis 20 ft. from the facade. The arrangement can be paralleled at Hanging Grimston, where a pit some 10 ft. west of the facade, contained a quantity of charcoal; in the mound above, a pottery bowl was found. In the centre of the facade bedding trench at Hanging Grimston was a pit with charcoal, human and animal bones and pottery in the filling. Pottery and animal bones

were also recovered by Mortimer in the upper part of the facade bedding trench at Kemp Howe. The pottery and animal bones at these two sites could also have been imported occupation site refuse. The heap of dirty whitish clayey sand, with scattered charcoal and animal bones, near the pair of stone walls in the Kilburn long barrow, may have been yet another deposit of occupation debris. The placing of a portion of occupation rubbish in long barrows may have been a regular feature of the associated ritual. In view of the scarcity of grave goods directly accompanying the burials, it is possible that broken pottery and bones were considered to be 'dead' and suitable to accompany the human dead at the burial place.

Round Barrows

Before considering the interpretation of the burial structures, and the cultural and chronological aspects of long barrows in Northern England, it is necessary to discuss a related series of round barrow sites. These are round mounds covering cremation pyres, crematorium structures and facade bedding trenches. Of this series it is possible that some of the sites may prove on re-excitation to be long barrow sites that have been reduced by modern ploughing to the appearance of round mounds. Kemp Howe and Helperthorpe Barrow XLIX had the appearance of round barrows, but recent work has shown them to have been converted long barrows. However, the sites of Seamer Moor and Burythorpe have been proved by modern excavation to have been round mounds when first built.

The distribution of the round barrow sites under consideration consists of six sites on the Yorkshire Wolds, two on the limestone hills of North-East Yorkshire, a site on the Magnesian limestone hills of Eastern Durham and a single site on the Fell Sandstone hills of Northern Northumberland. Round barrows containing crematorium structures consist of two adjoining barrows in Garton Slack, Barrows 80 and 81 and Cowlam Barrow 277, all on the Yorkshire Wolds and dug by Mortimer. At Barrow 80, the crematorium had two parallel banks, one of gravel and the other of stacked turf which continued round the northern end of the structure. The detached bones of at least six adults were found scattered on the old land surface, with charcoal and covered by burnt gravel, filling the space between the banks. The crematorium covered an inhumation grave with an accompanying beaker; beneath each end of the crematorium were oval pits; the eastern had dark matter and decayed wood amongst the burnt gravel and two boulders rested on-top of the filling. The western pit, at the closed end of the crematorium, had the burnt bones of a young person and charcoal mixed with the burnt gravel of its filling. The adjoining Barrow 81 had parallel banks of chalk gravel, 26 ft. long; on the

old land surface between the banks were human bones and charcoal, covered by burnt chalk gravel. Some of the pieces of charcoal were reported as being several feet long and laid horizontally. A secondary grave dug through the mound had cut away the north-western end of the crematorium; a short-necked beaker accompanied the inhumation burial in this grave.

The large round barrow of Cowlam Barrow 277 had a burnt chalk deposit 12 ft. long covering scattered human bones and charcoal resting on the old land surface. Beneath the northern end of the burnt chalk was an oval pit which produced evidence of a probable child burial at the bottom; in the filling above were human and red deer bones, charcoal and pottery. The crematorium at Houghton-le-Spring in Durham was a ridge of burnt limestone rubble, 34 ft. long and 6 ft. wide, supported by boulders along each side. The disjointed bones of several individuals lay on the old land surface beneath the burnt limestone. Under each end of the burnt material were oval pits filled with boulders and with charcoal at the bottom.

Simple cremation pyres have been found beneath three round barrows. At Ford in Northumberland, a small round mound covered the site of a pyre, where several bodies had been cremated and occupation debris had been thrown on to the pyre while it was still hot. At Huggate Wold Barrow 224 the eastern half of the barrow covered a pyre site, the remains of more than one body were concentrated in an area 4 ft. in diameter. A pit filled with chalk, burnt soil and charcoal adjoined the pyre site. The excavator of the barrow commented on the marked differences between this cremation and those of the Bronze Age. The recently excavated pyre site at Seamer Moor was defined by six postholes; on one side was a rectangular setting of stones and on the other an oval pit filled with charcoal and dark soil. A possible pyre site may be a barrow at Pickering where Ruddock found a 'solid concretion of lime, charcoal and calcined bones, 4 ft. square and 2 ft. thick'; in the mound above was a burial with a handled beaker.

Mortimer's Huggate and Warter Barrow 254 had both pyre site and a facade bedding trench. Across the eastern side of the barrow was a narrow trench 30 ft. long and 2 ft. wide; burnt material extended along the centre of it. West of this was a hollow $10\frac{1}{2}$ ft. by $5\frac{1}{2}$ ft. and wood ash and burnt soil covered the floor. A cremated human foot remained *in situ* and further cremated bones were in the filling of the hollow which had been partially disturbed by the insertion of two inhumation burials with short-necked beakers. A facade bedding trench would also appear to be the explanation of a trench recorded by Greenwell at Heslerton Barrow VI on the Yorkshire Wolds. The barrow was 70 ft. in diameter; under its eastern portion was a trench over 16 ft. long

with wider pits at each end; a burnt filling ran along the centre of this with vertical packing stones. Between the centre of the trench and the middle of the barrow was an oval pit filled with burnt earth and a few animal bones. Broken pottery was found in the upper filling of the trench and on the old surface 12 ft. north-west of the centre. The burnt material in the bedding trenches of these two sites and the pottery from their fillings indicate that the facades had been burnt down and occupation debris deposited in the manner of the Willerby Wold Long Barrow (Manby 1963).

A final site to be considered is the recently excavated round barrow site at Whitegrounds, Burythorpe, in East Yorkshire. This was a round mound of sand; a trench 23 ft. long had been cut into the mound and lined with stones; disarticulated burials and pottery lay on the floor of the trench. Traces of a collapsed roof of planks were identified and the entrance to the trench had been blocked with stones.

Elements of both the long and round barrow series may be seen in the peculiar structure on Great Ayton Moor (Hayes 1967). The 'Tail' (Cairn E), 300 ft. long, has obvious affinities with long barrow mounds. However, it appears to be attached to an oval mound (Cairn B) with a trapezoidal stone chamber. The greater width and height of this oval cairn marks it as an entity in itself separate from the 'tail'. The walled passage that leads to the pitched stones forming the chamber and the stone blocking of its entrance can be paralleled at Burythorpe. The acid soil conditions of Great Ayton Moor would have destroyed any bones if the inhumation practices of Burythorpe had been followed there.

Associations and Dating

The scarcity of grave goods accompanying long barrow burials has already been commented upon and the depositing of occupation refuse in the barrows has been suggested as serving the same ritual role. Such refuse was deposited on the pyre at Ford, in a pit at Skendleby, and in the area of burnt-down mortuary enclosure facades at Willerby Wold, Kemp Howe and other sites. The pottery associated with the long barrows and the related series of round barrow sites in Northern England is very homogeneous and it is the Hanging Grimston long barrow which has provided the type site. Grimston Ware consists of a series of carinated and open bowl forms with rare examples of flasks; the vessels are plain, round-bottomed, in a fine hard fabric often burnished, red, brown and black in colour. Apart from the type site, Grimston Ware was found at the Skendleby long barrow, the East Yorkshire long barrows of Kemp Howe, Kilham, Kilburn, Seamer Moor, Westow and Willerby Wold.

It also comes from the round barrow sites of Ford in Northumberland and the East Yorkshire sites of Cowlam Barrow 277, Heslerton Barrow VI, Huggate and Warter Barrow 254, Garton Slack Barrows 80 and 81, Burythorpe and Seamer Moor.

The Neolithic pottery of Yorkshire was originally grouped into two classes; the fine carinated bowls were defined as Grimston Ware; Heslerton Ware consisted of S-profiled and other bowls, the class being regarded as derived from Grimston Ware (Piggott 1954, 114-7; Newbiggin 1936). The term Heslerton Ware should be abandoned, as recent work has shown that the pottery formerly embraced by this term included vessels of a completely separate ceramic group which are unconnected with the Grimston Ware series. Further, some S-profiled vessels could equally belong to a typologically early stage rather than to a late degenerate phase in relation to the fine carinated bowls. Grimston Ware should now embrace the whole series of carinated, open and S-profiled bowls represented on long barrow sites in Yorkshire and Lincolnshire and the round barrow sites discussed above. The remainder of the old Heslerton Ware consists of heavy and simple rimmed bowls and cups and rare keeled bowls which, in Yorkshire, have been termed Towthorpe Ware (Manby in Moore 1964, 200-1).

Towthorpe Ware occurs in distinctive burial associations represented at the Towthorpe Barrow 18, its type site, and a round barrow on the Yorkshire Wolds near Sledmere (Mortimer 1905, 9-11). This site had six crouched skeletons packed together in a space $5\frac{1}{2}$ ft. square and accompanied by two pottery bowls, double-pointed flint arrowheads, serrated-edged flint flakes and hammerstones. This association is repeated from other round barrows on the Yorkshire Wolds, where similar pottery bowls and arrowheads accompany inhumation burials packed together in a limited space and at most sites resting on a pavement of chalk slabs or a clay floor. The number of individuals represented at these Towthorpe Ware sites varies from two to fifteen. The packing of the bodies together, and the floors, suggest the possibility of a mortuary house or burial chamber. Around and above the burials at Aldro Barrow 88, Mortimer noted a change in the mound material and 'many cavities with greasy-looking sides'; this suggests that a structure had enclosed the burials. On the eastern and western sides of the clay floor at Aldro Barrow 94 were trenches 7 ft. long and 16 ft. apart, filled with rubble, soil and charcoal. Pits filled with chalk were recorded a few feet from the western corners of the burial deposit at Sherburn Barrow VII. Outside East Yorkshire, round barrows with burials of this type have been excavated at Castern, Upper Haddon and Wardlow, all in the Peak District. Further sites are Houghton-le-Spring in Durham and Crosby Garrett in

Westmoreland. Unfortunately, no burials with Towthorpe Ware have been excavated in modern times and the sites of this class are identified from 19th century excavation accounts.

For the chronological aspects of long barrows in the North of England, evidence is provided by the stratigraphy of sites and a short series of radiocarbon dates. Sherds of all-over corded Beaker from the secondary silting of the Kilham long barrow quarry ditches demonstrate that the mound was erected before the advent of the Late Neolithic Beaker Peoples. At Skendleby, however, two Beaker sherds were recovered from the mound material and Beaker pottery and hearths were found in the primary silting of the quarry ditches.

Radiocarbon dates are available for four long barrow sites: the earliest is provided by charcoal from the old land surface of the Seamer Moor long barrow of (NPL.73) 3080 ± 90 B.C. Charred timbers from the Willerby Wold long barrow yielded dates of (BM-189) 3010 ± 150 B.C. and (BM-188) 2955 ± 150 B.C. At Kilham a charred timber used as packing in the bedding trench gave (BM-293) 2880 ± 125 B.C. Antlers from the Skendleby long barrow provided dates of (BM-191) 2460 ± 150 B.C. and (BM-192) 2370 ± 150 B.C., although the Beaker sherds in the mound point to a date after 2000 B.C.

The chronology of the related round barrow series presents some difficulties, the pottery from Seamer Moor and Ford is typologically early and suggests that cremation pyres come from an early phase of the Neolithic period. Crematorium round barrows have secondary burials of Beaker and Early Bronze Age date. However, the crematorium structure at Garton Slack Barrow 81 covered a Beaker inhumation grave. The evidence suggests that the long barrows and related round barrow series were already being constructed at the opening of the 3rd millennium B.C. and continued to be constructed until the opening of the 2nd millennium B.C.

Discussion

The long barrow sites excavated in East Yorkshire and Lincolnshire in modern times show a related series of developments. The area finally covered by the mound had first been the site of a trapezoidal enclosure. The wider end of these structures had a particular significance and in all cases was the position of a monumental timber facade. The sides of the enclosures were of less significance, as they were variously formed of posts, walls or ditches. The areas enclosed by the enclosures were greatly in excess of

that required for the collection and burial of the dead. The concave facade was particularly favoured and is without parallel among the long barrows of Southern England. The facade area was clearly the focus of activity and the burial complex was sited immediately behind it, except at Skendleby. Elements of facade bedding trenches can be recognised in the accounts of 19th century excavators and serve to indicate that the timber facade was a regular feature of long barrows in this part of the country. In the stony country of the Pennines and the Cheviots, the same trapezoidal outline of the enclosures and the covering long mounds are provided by the kerbstones defining the cairns at Bradley Moor and Bellshiel Law. The robbing of these sites, however, has destroyed any trace of a monumental facade at their wider ends.

It would be unwise to assume that such enclosures exist beneath all long barrow sites in this area. The Kilham site had an earlier pair of parallel ditches on the site occupied by the trapezoidal posted enclosure. The scale of these ditches is comparable with those of the Lambourn Long Barrow (Wymer 1966, 4-6) and clearly a long barrow mound could have existed between these ditches at Kilham. It is possible that some of the post holes and pits between the eastern terminals of these early ditches may have been connected with it rather than the square ritual building. However, such an early long barrow did not have a facaded enclosure. The timber trapezoidal enclosure at Kilham has its closest parallel in the Fussell's Lodge enclosure and differs only in planning by the addition of entrances at the north-east corner and western end of the enclosure (Ashbee 1966, 6-7, Pl. I). The avenues of posts leading up to the long barrow sites at Kilham and Kemp Howe are at present without parallel.

The final constructional phase was the construction of the mound; in Yorkshire and Lincolnshire the material was obtained for this purpose from great quarry ditches flanking the sides of the mound. Only at Skendleby did the ditches encircle the mound, but a series of segmented ditches did encircle the facade end of the Garton Slack Barrow 34 site. In all cases the ditches were dug close to the edges of the mound; the wide berms that are a feature of southern long barrows, like Fussell's Lodge, Nutbane and Lambourn, are not represented at northern sites.

The banks flanking the burial deposits at Willerby, Kilham and Garton Slack may have supported a timber roof. It has been advocated that many of the sites could have had pitched wooden roofs in the Wayland's Smithy manner, the pits associated with the burial complex serving to hold wooden posts to support the gable ends (Ashbee 1966, 32-42). The widespread occurrence

of this kind of wooden structure in the British Isles has been disputed, particularly as the arrangements of the pits do not conform to the features of the Wayland's Smithy structure (Simpson 1968). The only sites with pits at either end of the burial complex area are Kilburn, Garton Slack Barrow 80 and Houghton-le-Spring; most of the others are only beneath the outer end of the deposit and beneath the middle portion. At many sites a pit is also at the centre of the facade. In the light of the structure at Burythorpe, the simplest method of roofing the banked burial areas would have been by laying timbers across the tops of the banks rather than by producing complicated gabled roofs.

Support for the concept of pitched mortuary houses is to be seen in a lithic version of such a structure at Great Ayton Moor (Hayes 1967, 16, Fig. 8, Pl. I). This was in an oval mound with a long 'tail' situated on the Cleveland Hills of the North-East Yorkshire Moors and of Neolithic date. It has been suggested that the massive post holes at Wayland's Smithy held large posts which projected above the surface of the mound as well as supporting a ridge for the pitched wooden roof of the mortuary house (Atkinson 1965, 131). The two tall standing stones, one at each end of the burial area - disturbed area, of the Skelmore Heads long cairn could be the translation into stone of such standing posts. The same interpretation could apply to the standing stones in the Bradley Moor long barrow and the single standing stone against which the crematorium deposit terminated at Crosby Garrett.

It is difficult to believe that all the pits beneath long barrows originally held posts. The pit at the centre of the facade of the Kilham long barrow showed no evidence of having held a post and the pits on the centre axis behind the facades at Bellshiel Law, Skendleby and Kilham also provided no evidence of posts. Similarly the pottery and animal bones from the pits on the main axis of the Hanging Grimston long barrow suggest that these, too, had not held posts. The function of such pits may have been of a ritual nature connected with the dedication of the site or were they symbolic graves derived from an older tradition of burial before the evolution of the collective practices?

The crematorium deposits are one of the most puzzling aspects of the northern long barrows; it has been suggested that the burning of a wooden mortuary house of Wayland's Smithy type produced these features (Atkinson 1965, 131). However, the great mass of burnt chalk present at Willerby and the high temperature attained are unlikely to have been the result of the burning of a wooden roof alone.

The cremation of the dead was a deliberate burial rite during the Early Neo-

lithic Period in Yorkshire, but the origin of the practice is obscure. The cremation pits like Garton Slack are clearly not the accidental effect of the burning of a wooden building. The six post holes at the Seamer Moor round barrow are the only feature at such sites that might indicate that the pyre in fact represented a mortuary house, containing burials, which had been burnt down. At this and other pyre sites a pit and occupation debris are recorded. The finding of Grimston Ware at the various long and round barrow sites further serves to link the various burial practices in Northern England; these contrast with the strictly inhumation rites associated with Towthorpe Ware.

The application of fire to the disposal of the dead and the destruction of mortuary structures has not been as widely appreciated as it deserves. The close association of Grimston Ware with cremation at once suggests that this practice should also be present in the other areas of Grimstone Ware distribution, which stretches along the whole of the eastern sea coasts of Great Britain (Piggott 1954, 116). In East Anglia a round barrow at Worlington, Suffolk, covered a pyre site with an adjoining grave; Grimston Ware sherds in large quantities and flints had been thrown on the pyre (Briscoe 1956, 101-9). The only excavated long barrow in East Anglia, at West Rudham in Norfolk, had parallel sides and a pyre site on a gravel platform at the southern end (Hogg 1939). In Kent, The Chestnuts Megalithic Tomb had sherds of Grimston Ware and fragments of cremated bone in the disturbed soil of the chamber and forecourt (Alexander 1961, 36-41, Fig. 11, 3-11). If this site were a stone version of a long barrow facade with a mortuary house behind [like Nutbane (Morgan 1959, 31-2, Fig. 6)] it would be unnecessary to look for a distant source of origin for this and other megaliths of the Medway Group.

The cremation association is continued in Eastern Scotland in the deposits of cremated bones at Pitnacree. These were deposited in the horse-shoe bank of stones entered through a roofed passage whose outer end could not be excavated. The pair of pits within the horse-shoe at this site had held timber posts that decayed before the horse-shoe was constructed (Coles & Simpson 1965, 34-43). The arrangements of this site at once bring to mind some of the Yorkshire sites and the arrangement of banks and roofed passage at once suggest a mortuary house and forebuilding arrangement (Piggott's Features 1 and 3).

In the distribution area of the related Lyles Hill Ware in Northern Ireland, the arrangements of Pitnacree are closely paralleled by Doey's Cairn, Ballymacaldrack with its 'cremation passage' and pits, opening out of a megalithic chamber set in a forecourt cairn (Evans 1938, Fig. 2). The small round cairn at Lyles Hill, the type site, covered a pyre site which had

had vast amounts of occupation refuse thrown on to it (Evans 1953). This site closely resembles the Ford round barrow. Also in Northern Ireland a cremation pit associated with Lyles Hill Ware was found in a gravel pit at Killaghy, Armagh (Evans 1940, 139-40). In the Isle of Man, also in the distributional area of Lyles Hill Ware, is a stone version of a cremation long barrow with a crescentic facade, at Ballafyle (Piggott 1954, 162).

The burning of the dead and wooden mortuary structures were the most distinctive features of long barrows in Northern England. However, the cremation aspect was more than a regional feature; the priority of the practice over the evolution of the mortuary structures is still difficult to establish. The role of burning in areas like the Pennines and Lake District, where some features of construction were translated into stone, would be less significant, but difficult to assess with the lack of modern excavation in these areas.

Appendix 1: Long Barrows

Cumberland

Brampton, The Carrick. T.C.W.A. & A.S. n.s. XLIII (1943), 168-74.
Ennerdale, Samson's Bratfull. T.C.W.A. & A.S. o.s. III (1878), 249.
Miterdale. T.C.W.A. & A.S. n.s. XLVI (1946), 292.
Newton Reigny. A pair of long barrows O.S. Map.

Lancashire (Furness)

Urswick, Skelmore Heads. (Powell 1963, 20-6).

Lincolnshire

Burgh on Bain, Burgh Top. (Phillips 1932, 198-9).
Candlesby. (Phillips 1934, 163).
Claxby, Deadman's Graves. (Phillips 1932, 190-1).
Cuxwold, Ash Holt. (Phillips 1932, 184-5).
Langton by Spilsby, Spellow Hills. (Phillips 1932, 193-5).
Ludford Magna, Adam's Head. (Phillips 1932, 197).
Normanby. (Phillips 1934, 176).
Skendleby, Giant's Hills. (Phillips 1935 a, 37-106).
Swinhope, Ash Hill and Hoe Hill. (Phillips 1932, 181-2).
Tathwell. (Phillips 1932, 186).
Walmsgate, Beacon Plantation. (Phillips 1932, 187-9).

Northumberland

- Elsdon, Bellshiel Law. (Newbigin 1936, 293-309).
Elsdon, Monksridge. Northumberland C. Hist. XV (1940), 58.
Falston, Devil's Lapful. Pro.Soc.Ant.Newcastle 4th S. VII (1935-6), 166-7.
Thorneyburn, Birks. Northumberland C. Hist. XV (1940), 58.

Westmorland

- Crosby Garrett, Raiset Pike. (Greenwell 1877, 510-3).
Crosby Garrett, Barrow CLXXIV. (Greenwell 1877, 389-90).
Crosby Ravensworth, Cow Green. R.C.H.M. Westmorland (1936), 89.
Lowther, Trainford Brow. T.C.W.A. & A.S. n.s. XL (1940), 115.

Yorkshire, East Riding

- Folkton, near Spell Howe. O.S. Map.
Garton Slack, Barrow 37. (Mortimer 1905, 209-11); M.P.B.W. Excavations Annual Report 1965 (1966), 7-8.
Garton Slack, Barrow C34. (Mortimer 1905, 246-7 & 258, Fig. 721; Manby 1963, 196).
Cowlam, Kemp Howe. (Mortimer 1905, 336-8; Manby 1963, 196); M.P.B.W. Arch. Excavations 1968 (1969), 13.
Helperthorpe, Cross Thorns. (Greenwell 1877, 53 & 489; Mortimer 1905, 333-5).
Helperthorpe, Barrow XLIX. (Greenwell 1877, 205-8; Hicks 1969, 306-13).
Heslerton. (Greenwell 1877, 488 footnote; Vatcher 1965).
Kilham, Dotterill Park. (Greenwell 1877, 553-6).
Market Weighton. (Greenwell 1877, 505-9).
Rudston. (Greenwell 1877, 497-501).
Thixendale, Hanging Grimston. (Mortimer 1905, 102-5, Fig. 249).
Westow. (Greenwell 1877, 491-6; Manby 1963, 194).
Wharram, Raisthorpe. (Mortimer 1905, 18); M.P.B.W. Excavations Annual Report 1965 (1966), 8.
Walkington, Ling Howe. Y.A.J. XLII (1968), 117.
Willerby Wold. (Greenwell 1877, 487-90; Manby 1963, 173-205).

Yorkshire, North Riding

- Cropton. (Bateman 1861, 211-2).
Cropton. (Bateman 1861, 227-8).
East Ayton, Seamer Moor. (Conyngnam 1848, 104-5); P.P.S. XXVII (1961), 345.
Eberston, Howe Hill. (Greenwell 1877, 484-7).
Eberston, two destroyed long barrows. (Elgee 1930, 41-2).

Gilling, Yearsley Moor. (Greenwell 1877, 550-3).
Kilburn, Wass Moor. (Greenwell 1877, 501-5; Elgee 1930, 46).
Newton Mulgrave, Birkdale. Unpublished, information from R.H. Hayes.
Over Silton, Kepwick Moor. (Greenwell 1877, 509-10).
[The sites of Peasholme and Grosmont (Elgee 1930, 40 & 47) are not long
barrows].

Yorkshire, West Riding

Bradley, Black Hill. (Butterfield 1939).
Dinnington. (Elgee 1933, 187).
Marr, Hangman's Stone. (Hunter 1828, 489).
Sprotborough, King's Grave.

Appendix 2: Round Barrows

Durham

Houghton-le-Spring, Copt Hill. (Trechmann 1914, 123).

Northumberland

Ford, Broom Ridge. (Greenwell 1877, 410).

Yorkshire, East Riding

Cowlam, Barrow 277. (Mortimer 1905, 340-1).
Burythorpe, Whitegrounds. M.P.B.W. Archaeological Exc. 1968 (1969), 14.
Huggate, Barrow 224. (Mortimer 1905, 300-1).
Garton Slack, Barrow 80. (Mortimer 1905, 235-7).
Garton Slack, Barrow 81. (Mortimer 1905, 238-41).
Huggate & Warter, Barrow 254. (Mortimer 1905, 320-1; Manby 1963, 196-7).

Yorkshire, North Riding

East Ayton, Seamer Moor. Arch. Newsletter 7 (1963), 213-4.
Great Ayton. (Hayes 1967).
Pickering. (Bateman 1861, 209).

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Figure 1. The distribution of long cairns. 1, no chamber visible; 2, containing a passage-grave; 3, containing a Clyde-type chamber; 4, containing an unclassified chamber.