

ART. II – *Evaluation of a Burnt Mound, Aldingham, Cumbria*

BY THE MORECAMBE BAY ARCHAEOLOGICAL SOCIETY

IN August 2002 members of the Morecambe Bay Archaeological Society excavated part of a mound located near the village of Aldingham on the Furness Peninsula in Cumbria (Fig. 1). The mound is situated at SD 2795 7066, approximately 500 m south-west of Aldingham church and within *c.*300 m of the coast. It had been identified by Doug Stables in 1992 and, as it was not already recorded, was considered suitable for a limited exploratory excavation. Burial mounds have been recorded in the general area and so it was considered likely that this could be a similar type of monument. Permission was gained from the landowner and it was initially agreed that a single exploratory trench should be excavated across one side of the mound, although a second trench was subsequently also opened in order to examine a particular aspect of its structure. Before the excavation began a topographic survey of the surrounding landscape was also carried out (Fig. 1). A sample taken during the excavation produced large quantities of charcoal, from which radiocarbon-dates were acquired. A small number of post-medieval finds were also discovered in the topsoil.

Aldingham and the Archaeological Record

The village of Aldingham is known to have an early history; the name suggesting an Anglian influence (Ekwall, 1922, 208), and it is recorded in the Domesday Book as being held by Ernulf (Farrer and Brownbill, 1914, 321). Local tradition has it that part of the village was swept away at some point in antiquity forcing the Le Fleming family, based at the nearby motte, to move inland to Gleaston Castle (West, 1774, 218). The church, which dates back to at least the twelfth or thirteenth century (Farrer and Brownbill, 1914, 322), is situated on the edge of the parish, apparently as a result of this inundation (Barber, 1894, 101). Excavations carried out at the motte in the first half of the nineteenth century, possibly at the behest of Colonel Braddyll of Conishead Priory, revealed human and animal bones and what is described as a ceramic pipe running across it (Ferguson, 1887), although the actual results of these excavations are not easily understood. Further research in the twentieth century has suggested a medieval origin, perhaps associated with Michael le Fleming (Kelly, 1924; Perriam and Robinson, 1998, 375).

Earlier remains are also known from the immediate area, including a probable standing stone *c.*1 km to the north of the mound (SMR No. 17067) and cremation urns, likely to be of Bronze Age date, contained within a cairn discovered near Colt Park Farm in 1803 (Close in West, 1805, 392).

The site background

A brief examination of early maps of the immediate area around the mound was carried out. The Tithe Map of 1846 (CRO(B) BPR/21) shows a number of field

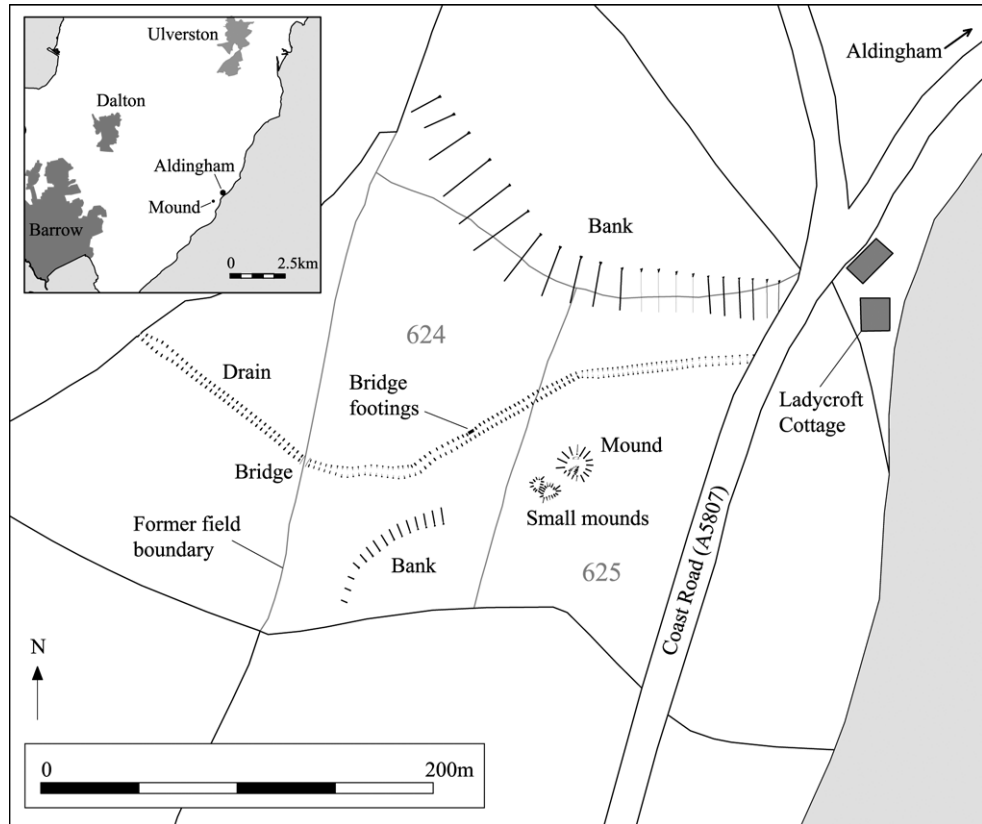


FIG. 1. Site location and local topography.

boundaries that are no longer present, including one that bisected the field north/south, and probably ran relatively close to the mound (Fig. 1). Field 625 is named “Blackspring Meadow” and field 624 is named “Goad Meadow” in the Tithe Apportionment (CRO(B) BPR/21/I/20), and the large field drain that runs approximately east/west is not shown (Fig. 1), which would suggest that the area was generally wet and boggy at this time. The Ordnance Survey first edition 25”: 1 Mile map of 1891 demonstrates that the field boundaries had taken their present form and the large field drain had been constructed by this time.

The associated landscape

The underlying solid geology of the general area principally comprises Carboniferous limestone (Moseley, 1978, Fig. 1). This is generally overlain by a mixture of brown earths, gleys and podzols of the Lowick and Lindale Associations, derived from glacial tills (Hodgkinson *et al.*, 2000, 23). The landscape is relatively low-lying, less than 10 m above mean sea level, and within 300 m of the coast of Morecambe Bay.

The topographic survey identified a number of features, including two banks orientated approximately east/west, one across the north side of the field, the other across part of the south side (Fig. 1). A large drainage ditch also runs east/west across the field, and is crossed by a small stone-built footbridge west of its centre, with footings for another possible footbridge north-west of the mound. Immediately to the south-west of the mound two smaller mounds were also identified. A limited metal detector survey was also carried out of the area immediately around the mound and all the finds were plotted. Several objects were recovered, all of which are probably post-medieval in date, consisting mainly of small fragments of farm machinery and similar items. None of these are considered to add significantly to the understanding of the site, all being recovered from the topsoil, and so they are not included in the further analysis and discussion.

A detailed survey of the mound was carried out using a total station and manual survey techniques, which created a hachure plan (Fig. 2). An isometric drawing of the mound was also produced. The main mound is approximately circular and 9-10 m in diameter. It has a slight depression on the south-west side, giving it a slightly C-shaped appearance in plan, and a smaller sub-rectangular depression on the north side (Fig. 2). It is situated at the base of a slight slope, which in effect forms the east end of the southern of the two banks, leading down into the valley formed by the large field drain.

Evaluation results

An initial trench 4.3 m long by 1.2 m wide was excavated across the approximate centre of the north-west side of the mound (Trench 1; Figs. 2 and 3). Immediately below the turf was a loose layer of burnt and fire-cracked stones in a matrix of dark brown peaty clay, typically 0.06 m thick (**101**). Cut through this layer and into the layer below was a shallow pit 0.55 m long by 0.3 m wide and 0.3 m deep (**102**), which was partially lost within the section of the trench. A dark brown-black peaty soil with no inclusions, apart from a small number of rounded stones (**103**), filled this (Fig. 3).

Below the topsoil the remainder of the mound was constructed of a more compacted deposit of fire-cracked stone in a dark brown-black peaty loam matrix containing large quantities of charcoal (**104**). Some of the stones within this deposit were intact on discovery although fractured and easily broken, and a number were apparently water-worn in character. There was no evidence for successive layers within this deposit and it appeared to be relatively homogeneous in appearance. Due to the difficulties of excavating such a compacted and stony material, only a selected section of it was excavated any further, in order to gain an idea of its full thickness (Fig. 3). Below deposit **104**, the mound was built on top of a layer of fine dark to mid-brown silty peat containing a small amount of wood fragments (**105**). This layer was not excavated.

A second trench (Trench 2) was opened to the south-east of Trench 1 across part of the v-shaped depression on the south-west side of the mound (Fig. 2). This was intended to rapidly examine the depression and assess whether it was a modern feature or not. Immediately below the turf, a loose layer of fire-cracked stones in a dark brown to black silty matrix up to 0.1 m thick was discovered (**201**, the same as

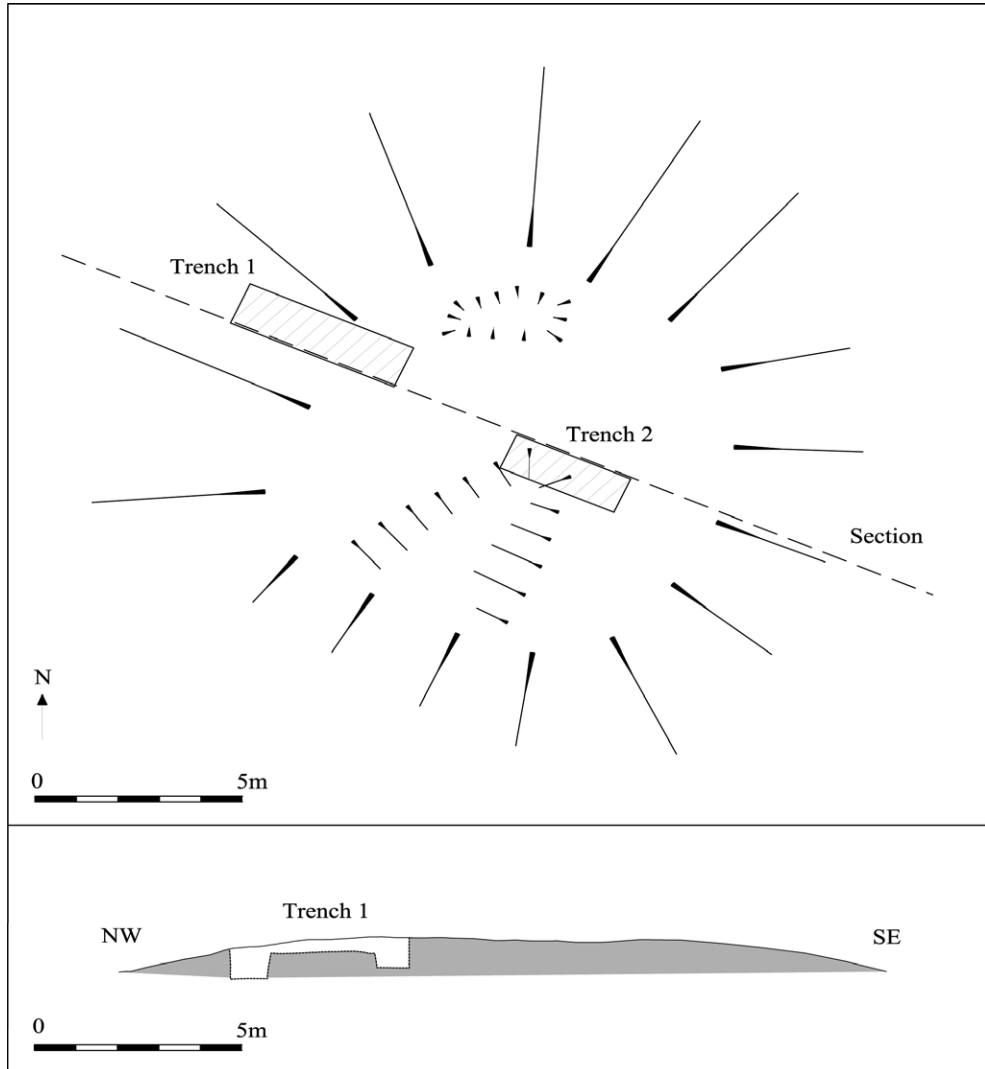


FIG. 2. Detailed topography of the mound and cross-section.

101). Below this was a more compact deposit of fire-cracked stone in a dark brown to black matrix (**202**, the same as **104**). This was excavated by hand to a depth of approximately 0.2 m. There was no evidence for modern intrusion within **202** and it was considered likely that the depression had formed as a result of or during the original construction of the mound. Trench 2 was not excavated beyond this depth. Following the excavation both trenches were filled and the turf replaced.

Post-excavation

A large, approximately 10 litres, sample of the deposit of burnt stone (**104**) was taken for further analysis. The majority of this was wet-sieved through a series of

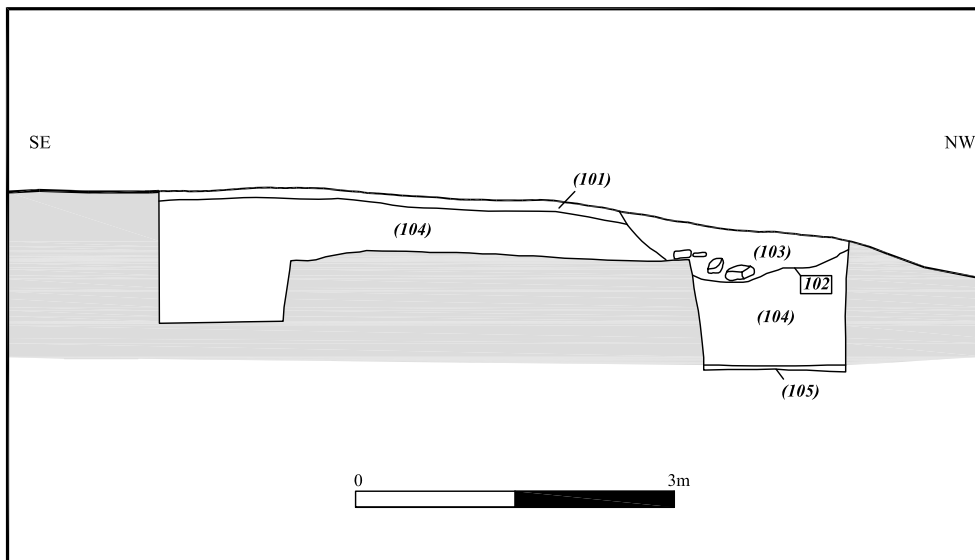


FIG. 3. Detail of the north-east-facing section.

meshes of varied thickness and fine particles of charcoal were floated off.

The charcoal was examined and samples suitable for radiocarbon dating were retrieved. The residues were also examined for finds and in order to identify general types of stone present.

Two radiocarbon dates were obtained from the Scottish Universities Research and Reactor Centre (SURRC) AMS Facility (part of the Scottish Universities Environmental Research Centre (SUERC)) from charcoal thought to be from relatively short-lived species such as birch and hazel. Both of these dates fall towards the beginning of the second millennium BC: 2290-2020 cal BC (3740 ± 40 BP (SUERC-1855)) and 2140-1910 cal BC (3640 ± 35 BP (SUERC-1856)).

Finds

A few post-medieval finds were recovered from the topsoil (101) during the excavation. The majority of these comprised sherds of glass and earthenware vessels, probably dating from the nineteenth to twentieth century. A discreet group of refitting sherds of an earthenware handled jug and a wine bottle of probable late seventeenth to early eighteenth century were also discovered (Fig. 4).

The nineteenth and twentieth century finds recovered from the topsoil are presumably the result of nightsoiling carried out following improvements to the land. This would fit with the apparent improvements in drainage carried out in the late nineteenth century, as shown in the changing field boundaries and construction of the drainage channel during this time. The two collections of refitting sherds of glass and pottery are more difficult to explain. Their close proximity to each other and the fact that they refit suggests that they relate to a single deposition incident, although the lack of subsequent disturbance seems remarkable.

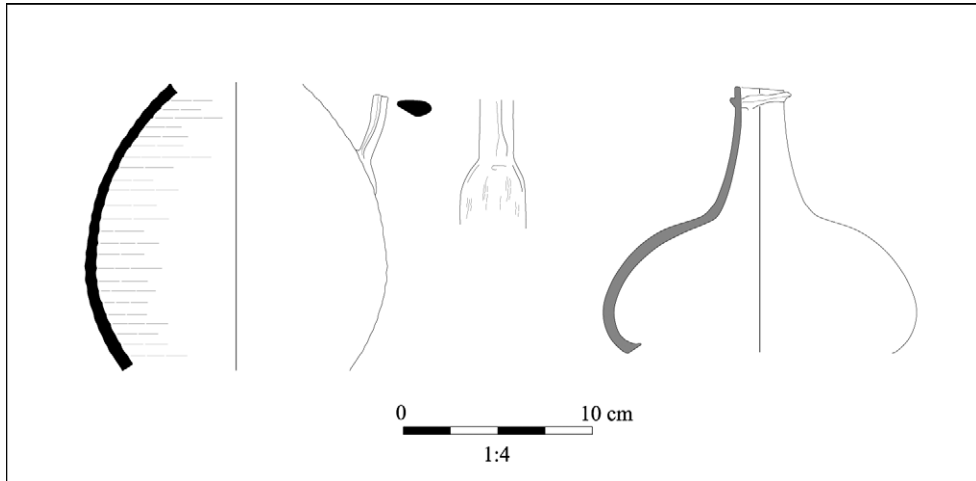


FIG. 4. The seventeenth-eighteenth century jug and bottle from context **101**.

The fragments of stone collected within the sample were also examined in order to identify the types present. The majority of the stone comprised of limestone, with smaller amounts of sandstone and shale. It was unfortunately not possible to say what type of limestone was present, although it might be expected to be Carboniferous, which is common in the general area (Moseley, 1978, Fig. 1). It is considered likely that the stone was acquired from the beach nearby.

The development of the mound and associated landscape

None of the landscape features identified within the field appear to have any direct relationship with the mound. The banks to the north and south-west (Fig. 1) are probably the remains of a raised beach, which has been identified in several parts of Cumbria (Hodgkinson *et al.*, 2000). This has been shown typically to predate the late Mesolithic period, at approximately 4000 BC (Cherry and Cherry, 2002, 3).

The drainage ditch across the field was constructed in the second half of the nineteenth century, and probably coincided with a number of substantial alterations to the landscape, including the removal of several field boundaries. The associated footbridge and footings for a possible second footbridge logically cannot predate the construction of the drain. None of these features have any direct bearing on the mound itself, although they may explain the general presence of post-medieval finds in the topsoil. The position of the former field boundary running north/south across the field shown in 1846 (CRO (B) BPR/21) suggests that it is fortunate indeed that the mound was not destroyed or damaged during the construction or removal of this boundary.

The two small mounds to the south-west of the main mound were not examined in detail, although during the metal-detector survey a small area was exposed. They were found to consist largely of small to medium water-worn stones, although this material was identified in a number of locations, in particular in association with the

“raised beach”. The exact nature of these mounds is not clear and although it is tempting to suggest they may have a connection with the mound, perhaps stockpiles of stones ready to be heated, there is no real evidence for this.

The features within the mound itself are also difficult to interpret. The small sub-rectangular depression on the north side was not examined at all and so cannot adequately be explained, although it is likely to be modern. The v-shaped depression on the south side seems likely to relate to the structure of the mound itself, and is an important factor in the understanding of the mound’s function. The small pit discovered during the excavation (**103**) is clearly very modern, and may be the result of erosion caused by animals such as cattle.

Discussion

It is clear from the form and structure of the monument that it is a burnt mound (cf. Heawood and Huckerby, 2002, 46). This is further supported by the radiocarbon dating evidence, which falls at the earlier end of a range of similar, dated examples (Brindley and Lanting, 1990). The mound is not strictly crescent-shaped, as is the norm, although this is not uncommon (for example, see Heawood and Huckerby, 2002, 46). It is considered possible that the v-shaped depression on the south-west side has been created by the collapse of a central feature such as a trough, which would be expected in a burnt mound and around which the typically crescent shape develops.

The peat layer upon which the mound is situated, although not dated, in itself appears to have formed in a wet shallow valley between two raised beach levels probably dating to around 4000 B.C. This assumption is supported by the radiocarbon dates, and the lack of finds recovered from the body of the mound should not be considered unusual. Finds from burnt mounds are not common, and examples that can be assigned to a stratigraphically meaningful layer are very rare (Cherry, 1990, 49).

The limited nature of the excavation does not add greatly to the general interpretation of such sites. No information was recovered that adequately explains the function of the mound. Burnt mounds remain an enigmatic type of monument, with the original interpretation as cooking sites more recently challenged by the suggestion of their use as saunas (Barfield and Hodder, 1987; Ó Drisceoil, 1988; Buckley, 1990, 9).

Examples of burnt mounds are not plentiful in Cumbria. An early published survey identified five, most of which are situated near Blawith and Torver in High Furness (Nixon, 1990; see also LUAU, 1995). The number of known examples has continued to increase in recent years, and a synthesis of Cumbrian examples has recently been completed (Hodgson forthcoming), which considers their wider distribution in greater detail than is intended here.

Only a few burnt mounds have been excavated in Cumbria. An example at the Garlands Hospital site near Carlisle identified in 1996 (LUAU, 1996) contained a number of pits relating to the use of the mound, including two with the remains of possible timber linings (Centre for Field Archaeology, 1997). Radiocarbon dates were subsequently obtained for these pieces of timber, revealing a long period of use on either side of 2000 BC (Neighbour and Johnson, 2005, 7-8). The burnt mound

at Sparrowmire Farm, Kendal (first reported by Miller and Lupton, 1999), was shown to have at least two phases of use, one of which included the repair of the central trough and insertion of a timber lining (Heawood and Huckerby, 2002). Its earliest phase of use dated to around 1700–1200 cal BC, making it approximately 500 years younger than the Aldingham mound. Deposits of peat were also discovered below the mound at Sparrowmire Farm, although the trough was set within clay. Part of what was probably the remains of a burnt mound was also excavated at Drigg (LUAU, 2001) and subsequently dated to 2580–2300 cal BC (Huckerby *pers comm.*). More recent excavation on the site was not able to reveal any further information about the nature of this burnt mound as it had been entirely destroyed by the sea (Croft *et al.*, 2003, 14).

It is not clear if there is a trough present within the Aldingham mound, although the v-shaped depression on the south-west side may have been caused by the collapse of such a feature. It seems likely though, that the peat deposit below the Aldingham mound is quite extensive; the lower part of the field is presently very boggy across the whole area on either side of the drain. The potential for a high level of preservation of any organic layers, such as a timber trough lining, and palaeoenvironmental evidence is therefore high. The site is currently not threatened and is unlikely to come to any immediate harm given the current land use and ground conditions.

The excavation of the mound at Aldingham has demonstrated the value that can be gained from a small-scale evaluation of such a site. Although not adding hugely to our understanding of the function of this type of monument, its positive identification and dating contributes to the known distribution and phasing. Little damage was caused to the mound through the excavation of these trenches and it remains available for future study and interpretation.

Acknowledgements

The excavation could not have been carried out without the hard work and dedication of the members of the Morecambe Bay Archaeological Society, many of who also supplied equipment and materials. The following members took part in the fieldwork: Duane Alexander, Cath Baxter, Daniel Elsworth, Bridget Gerry, Paul Moore, Mary Ross (and her grandson Luke), Jeff Simpkin, Doug Stables, Frank Walker, Paul Winder and Kate Young. Further thanks are also given to John Dickinson for his help on site. A number of people gave their time freely with information and help during the compilation of this report, which was carried out by Daniel Elsworth, and the Morecambe Bay Archaeological Society would like to express its heartfelt thanks to all of them. Jo Dawson produced the drawings of the finds and Adam Parsons carried out edits to all of the illustrations and examined the post-medieval artefacts, and Ian Miller of Oxford Archaeology North provided further comments on them. Jamie Quartermaine, Rachel Newman, Elizabeth Huckerby, also of Oxford Archaeology North, and John Hodgson, the Lake District National Park Archaeologist, gave their comments on the report and the site, as well as supplied additional information and references. Helen Evans provided a number of references and useful pieces of information. Harry Pinkerton and Mike Kelly of Lancaster University Department of Environmental Sciences examined the sample

of stone from the mound and provided comments on it. Tim Neighbour of CFA Archaeology provided an advance copy of the Garlands Hospital report.

The Cumberland and Westmorland Antiquarian and Archaeological Society, who provided a generous grant for the radiocarbon dates, deserve particular thanks for their support. The Scottish Universities Environmental Research Centre in Glasgow produced the radiocarbon dates, and further thanks are due to Gordon Cook for his advice on this matter. Thanks are also due to Bette Hopkins, formerly of the Cumbria Sites and Monuments Record, who supplied information on archaeological sites in the vicinity of the mound, and the staff of the Barrow-in-Furness Record Office for their assistance.

The excavation could not have taken place without the permission of Mark Towers of Colt Park Farm, to whom thanks are expressed in particular. Without his good faith and trust, the monument's true nature might have remained unknown. The archive for the project has been deposited in the Cumbria Record Office in Barrow-in-Furness.

Notes and References

- Barber, H., 1894, *Furness and Cartmel Notes* (Ulverston).
- Barfield, L. and Hodder, M., 1987, "Burnt Mounds as Saunas, and the Prehistory of Bathing", *Antiquity* **61**, 370-379.
- CRO(B) BPR/21, 1846, *Plan of the Parish of Aldingham in the County of Lancaster*.
- CRO(B) BPR/21/I/20, 1846, *Apportionment of the Rent-Charge in Lieu of Tithes in the Parish of Aldingham in the County of Lancaster*.
- Brindley, A. L., and Lanting, J. N., 1990, "The Dating of *Fulachta Fiadh*", in V. Buckley (ed.), *Burnt Offerings* (Dublin), 55-59.
- Buckley, V., 1990, "Foreword", in V. Buckley (ed.), *Burnt Offerings* (Dublin), 9-10.
- Centre for Field Archaeology, 1997, *Archaeological Investigations in the Vicinity of a Plough-Spread Burnt Mound at Garlands Hospital, Carlisle: Geophysical Survey, Topographic Survey and Excavation*, CFA, unpublished report.
- Cherry, P. J., and Cherry, J., 2002, "Coastline and Upland in Cumbrian Prehistory – a Retrospective", *CW3*, ii, 1-20.
- Cherry, S., 1990, "The Finds From *Fulachta Fiadh*", in V. Buckley (ed.), *Burnt Offerings* (Dublin), 49-54.
- Croft, S., Coward, D., Ball, C., and Dickinson, S., 2003, "Excavations at Drigg, Cumbria", *Archaeology North* **21**, 14-15.
- Ekwall, E., 1922, *The Place-Names of Lancashire* (Manchester).
- Farrer, W., and Brownbill, J. (eds), 1914, *The Victoria History of the Counties of England: A History of Lancashire* (London, 1993 facsimile).
- Ferguson, R.S., 1887, "Two Moated Mounds, Liddell and Aldingham", *CW1*, ix, 404-411.
- Heewood, R., and Huckerby, E., 2002, "Excavation of a Burnt Mound at Sparrowmire Farm, Kendal", *CW3*, ii, 29-49.
- Hodgkinson, D., Huckerby, E., Middleton, R., and Wells, C. E., 2000, *The Lowland Wetlands of Cumbria*, North West Wetlands Survey **6**, Lancaster Imprints **8**, (Lancaster).
- Hodgson, J., forthcoming, *Burnt Mounds in the Lake District*.

- Kelly, P. V., 1924, "Aldingham Motte and Grange", *CW2*, xxiv, 271-277.
- Lancaster University Archaeological Unit, 1995, Torver Low and Blawith Commons Cumbria: Archaeological Survey, LUAU, unpublished report.
- Lancaster University Archaeological Unit, 1996, Garlands Hospital, Carlisle, Cumbria: Archaeological Evaluation Report, LUAU, unpublished report.
- Lancaster University Archaeological Unit, 2001, Drigg, Cumbria: Assessment of Archaeological Evaluation, LUAU, unpublished report.
- Miller, I., and Lupton, A., 1999, "A Possible Bronze Age Burnt Mound at Sparrowmire Farm, Kendal", *Archaeology North*, **15**, 13.
- Moseley, F, 1978, *The Geology of the Lake District*, Yorkshire Geological Society, Occasional Publication, **3** (Leeds).
- Neighbour, T., and Johnson, M., 2005, "A Bronze Age burnt mound in Lowland Cumbria: excavations at Garlands Hospital, Carlisle, 1997", *CW3*, v, 11-24.
- Nixon, M. J., 1990, "Some South Cumbrian Burnt Mounds – an Initial Survey", in V. Buckley (ed), *Burnt Offerings* (Dublin), 112-16.
- Ó Drisceoil, D. A., 1988, "Burnt Mounds: Cooking or Bathing?", *Antiquity* **62**, 671-80.
- Ordnance Survey, 1891, *Lancashire Sheet 22.7, 25"*: 1 Mile.
- Perriam, D. R., and Robinson, J., 1998, *The Medieval Fortified Buildings of Cumbria: An Illustrated Gazetteer and Research Guide*, CWAAS Extra Series, **29** (Kendal).
- West, T., 1774, *The Antiquities of Furness* (Ulverston).
- West, T., 1805, *The Antiquities of Furness* (2nd edition with additions by W. Close) (Ulverston).