EXCAVATION AND SURVEY AT THE EXMOOR STONE SETTINGS OF LANACOMBE I AND IV

MARK GILLINGS AND JEREMY TAYLOR[1]

INTRODUCTION

Recent damage to component standing stones at the settings of Lanacombe I (ENPHER MSO10973) and Lanacombe IV (ENPHER MSO6965), provided the opportunity for limited archaeological excavation in advance of consolidation. In each case the stone had been knocked loose and partially toppled – an ever-present danger given the small size of the component megaliths and the technologies used to erect and fix them (see below). As fieldwork carried out on toppled stones at Lanacombe I and III had previously demonstrated (Gillings *et al.* 2010a) even limited excavation could produce useful results, shedding important light upon the structure and morphology of the settings and the technologies employed to erect the stones.

RESEARCH CONTEXT

Among the earliest archaeological monuments to be identified on Exmoor are settings of local sandstone and slate, arranged in circles, rows, solitary/paired stones, and geometric and semi-geometric patterns (Riley and Wilson-North 2001, 23–31, fig. 2.11). The latter, of which 59 examples are currently known, appear unique to Exmoor. They take a variety of forms, from rectangular settings and quincunxes, to apparently random scatters of stones. Many are concentrated around the headwaters of valleys, in areas of moorland which lie beyond the limits of medieval and later cultivation (*ibid*., 24). Two features of these settings are worthy of note: their diminutive size, with individual stones rarely exceeding 0.5m, and a lack of basic archaeological knowledge beyond suggested morphology and general distribution; although a detailed site by site survey was carried out by the RCHME, at the request of the Exmoor National Park Authority in the late 1980s/early 1990s (Quinnell and Dunn 1992).

A detailed discussion of the settings, their history of investigation, and the results of the recent fieldwork has already been published (Gillings *et al*. 2010a) and as a result only a brief summary is offered here. The settings were noted as early as the 17th century, but prior to the work reported in Gillings *et al.* 2010a only one had witnessed any modern excavation – the lowland setting at Westermill Farm, Exford (Burrow and McDonnell 1982) – and there had been no geophysical survey. Even their late Neolithic/early Bronze Age date is only assumed, based on loose analogy (ie that they are comparable to features such as stone circles and rows) and their physical proximity to round barrows and cairns (Chanter and Worth 1906, 549; Grinsell 1970, 38–51; Riley and Wilson-North 2001, 31). Poorly dated and without immediate parallel, it is unsurprising that their function and context remain obscure. We also know very little about the contemporary landscape of the settings, both in terms of the character of the immediate physical environment – whether they were constructed in open, closed or mosaic vegetation – and the degree

[1] School of Archaeology and Ancient History, University of Leicester

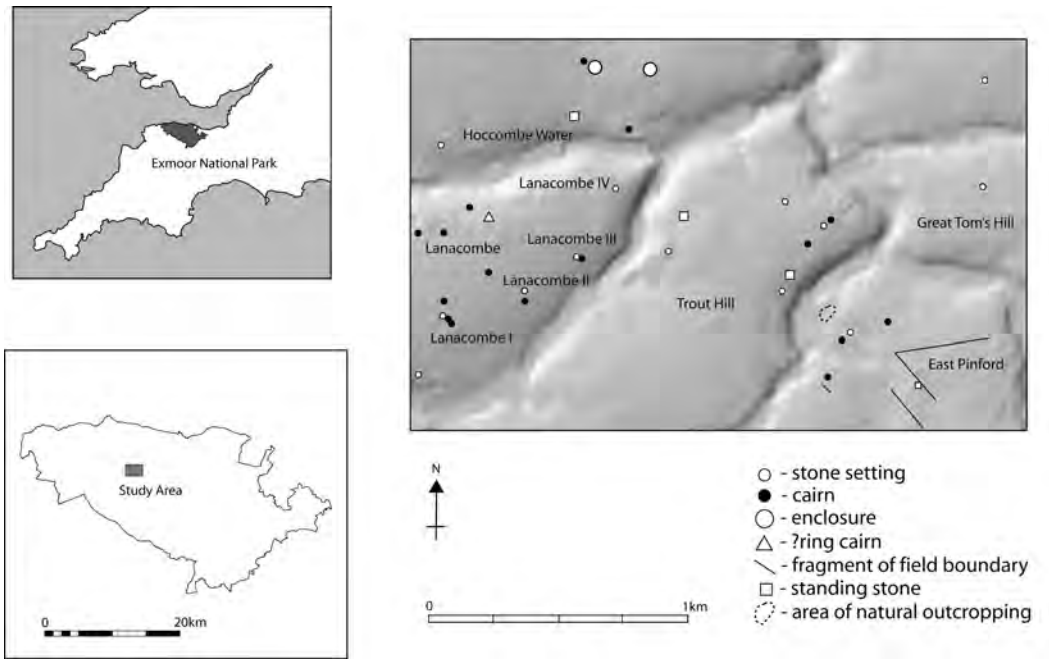

Fig. 1 The location of the study area

to which they might be temporally associated with other prehistoric features such as areas of field system and cairns. Such a poor state of knowledge is wholly the product of a dearth of investigative research, beyond basic field-survey. As if size could be correlated with value and significance, the diminutive scale of the settings may have engendered a lack of intellectual appeal; yet, with increasing attention being paid to regional sequences in British prehistory (eg Brophy and Brclay 2009), the need to understand these remarkable monuments in the context of both Exmoor and wider traditions of prehistoric monumental activity has become more pressing.

The fieldwork reported here forms part of a broader research initiative – *The Miniliths of Exmoor Project* – focused upon a particularly dense cluster of settings in the upper reaches of Badgworthy Water (Gillings *et al.* 2010a, 2010b) (Fig. 1). In each case an area of 1m^2 was excavated, aligned north–south and centred upon the void occupied by the damaged stone. The aim was to excavate 50% of the stonehole. This was in part to ensure survival of undisturbed packing material for future (fuller) investigation and in part to ensure the accurate (and successful) re-erection of the stone following excavation.

EXCAVATION RESULTS

Lanacombe I (ENPHER MSO10973)

The setting comprises 13 component megaliths. The individual stones are all small subangular slabs standing to a maximum height of 0.65m. In plan they form a rather irregular linear arrangement that runs on a north-west–south-east alignment for a distance of 43m directly across the contour (Fig. 2). Of these, two had fallen by 1989 when the RCHME carried out a detailed survey of the site (stones F and M) whilst stone H was toppled sometime after and was excavated and reinstated in 2007 (Quinnell and Dunn 1992; Gillings *et al.* 2010a). The present excavations concerned stones B and C of the setting. Stone B was recorded in 1989 as upright but has recently been tilted to one side. The stone was relatively loose in its stonehole with clear voids evident around the base; the latter large enough for a vole to create a comfortable nest beneath the tilted upright. Stone C had been noted as leaning at an angle of 15° by the same survey, and was now virtually horizontal. Some of the other component stones had suffered from basal erosion caused presumably by the rubbing of

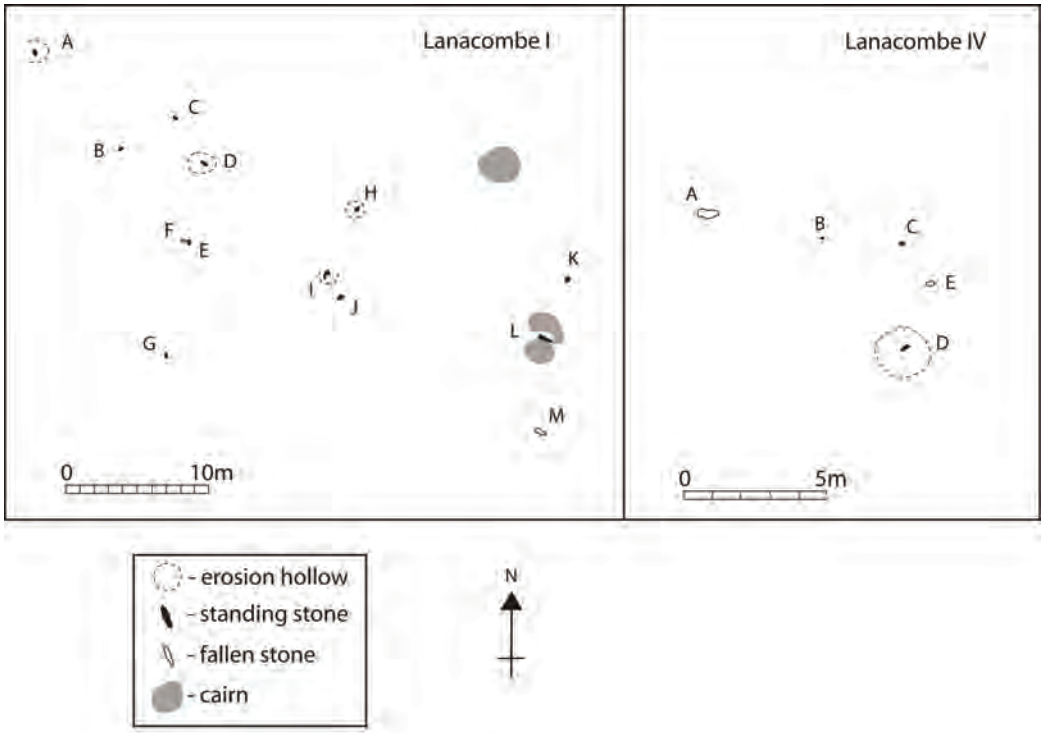

Fig.2 The sites investigated (after Quinnell and Dunn 1992)

sheep and cattle. In the most extreme cases (eg Stones A, D and I) this had served to completely truncate the surrounding land surface leaving the stones supported, rather precariously, by isolated tufts of soft rush and moor grass.

Lanacombe I - Stone B

Immediately beneath the turf was a layer of loose subangular fragments of sandstone (typ. 0.06–0.1m) [1003]. This spread proved to be shallow, coming down on to a firm dark grey-brown silty clay containing abundant, poorly sorted, angular to subangular fragments of sandstone (0.05–0.20m, typ. 0.12m) [1008]. Indeed, [1003] may well simply represent root disturbance of the very upper surface of this layer. This deposit [1008] was remarkably uniform and extended down to the natural (a black and orange banded silt). The uniform organic character of the matrix and random orientation and alignment of the stones within it (including vertically set pieces) suggest that [1008] corresponds to a dump, or spread of material rather than a natural erosion product.

Two features of note were visible within this spread of stone. The first was a rectangular 'collar' of larger, carefully aligned sandstone fragments on the surface of the spread that had originally lain against the surface of the standing stone and now defined the edge of the void resulting from its displacement. The second was a tabular chunk of quartz (0.13 x 0.08 x 0.04m) that had been placed close to the north-east end of the collar. Although small fragments of quartz are relatively common, such large chunks are rare, and the size, placement and way in which the chunk had clearly been broken off of a much larger block bears close comparison to the lump of quartz found previously during the excavation of stone H (Gillings *et al.* 2010a). Lining the void left by the megalith was a thin layer of silty clay [1004] which appears to have washed in after the stone had been dislodged. At the base of the stonehole at the north-east end was a large sloping piece of sandstone that had been placed diagonally (Fig. 3). With this stone in place the base of the

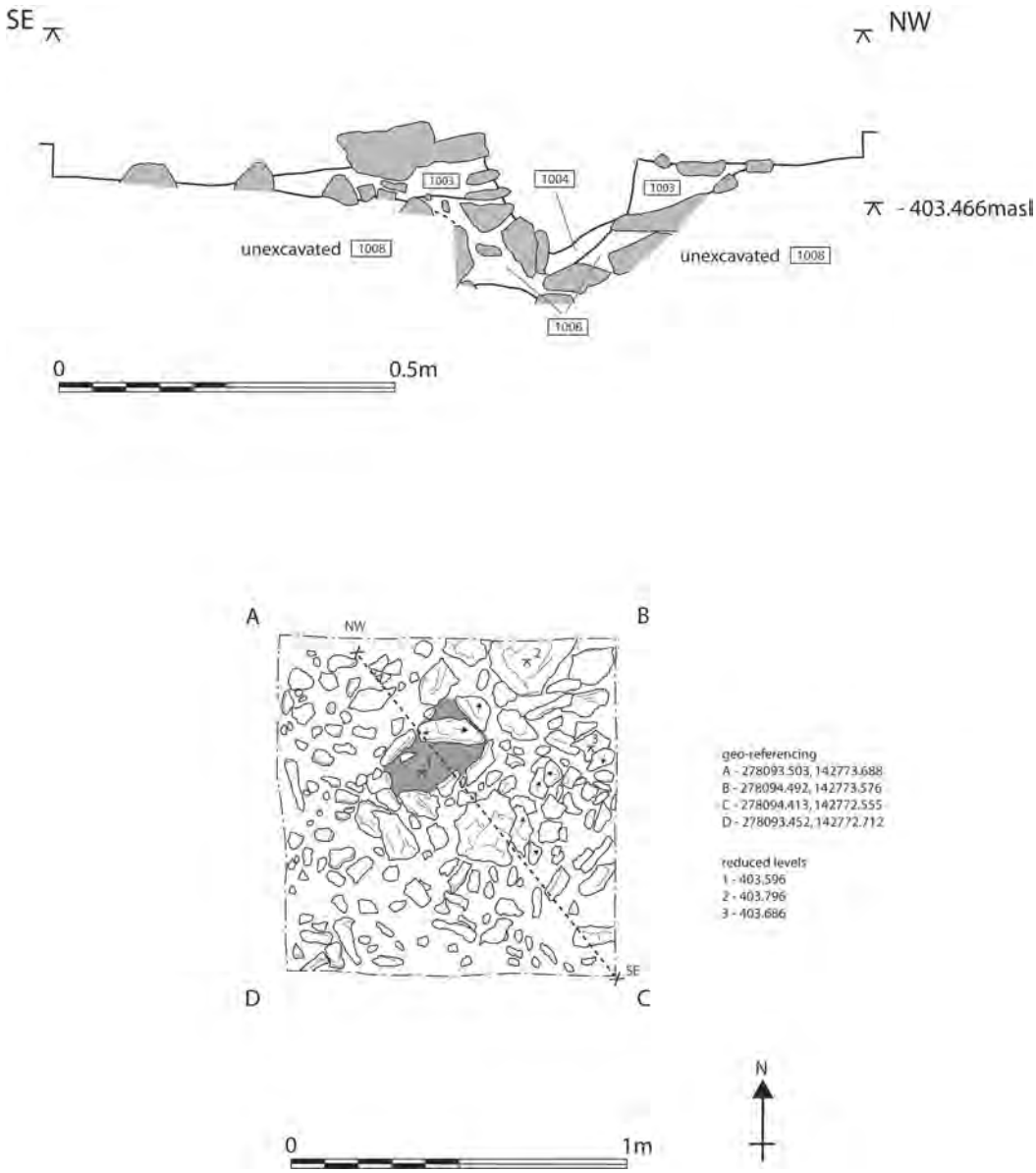

Fig. 3 Excavation of Stone B (Lanacombe I)

stonehole closely mirrored the basal profile of the megalith and it had clearly been selected and placed in order to support the upright; indeed it was re-employed for precisely this purpose during re-erection of the stone (Fig. 4).

Noticeable during excavation was the lack of any evidence in either [1008] or the underlying natural of the digging of a deliberate stonehole. Although a shallow depression could be seen in the natural at the north-east edge of the stonehole void, this was the result of compression rather than any attempt to deliberately cut or fashion a socket. Instead stone B appears to have been held upright and stabilised at the base using the diagonal packing stone noted

Fig. 4 Re-erecting stone B after excavation. Note use of original basal packing stone (B)

above. It was then packed into place using a compacted deposit of stone and soil that had been rammed against it (indeed this was the approach taken during reinstatement) (Fig. 4). This may originally have taken the form of a cairn that had subsequently weathered. However, the presence of a series of larger pieces of stone deliberately placed against the upright (the observed collar) immediately below the turf, argues against significant erosion. Likewise there is no evidence of any mounding around the area of the upright. It may well be that [1008] is merely part of a much more extensive spread of such redeposited material across this area of the site – unfortunately the small size of the trench precluded further exploration. No artefactual material was recovered during the excavation and an environmental sample of [1008] revealed no organic material.

Stone B comprised a subrectangular slab of sandstone (0.54 x 0.29 x 0.18m). The south-facing side was flat whilst the north-facing side was triangular in profile; a stepped fracture midway along the face giving it the appearance of a flat-backed chair. The base of the stone formed a chisel-like projection reaching 0.22m below the current turf-line. At the very base of the stone a flake of stone had been struck off leaving a noticeable notch, the resulting fracture looking very fresh in appearance (Fig. 5).

Lanacombe I - Stone C

This stone was recorded in 1989 as sloping westwards at an angle of 15º, and has subsequently been tilted further. Following removal of the turf, evidence of what can most charitably be described as an attempt at consolidation could be seen in the form of plastic wrappers (for a 'Yorkie' chocolate bar and boiled sweets) in a loose soil and stone matrix [1010]. This had been pushed under the western face of the toppled stone and into the void beneath that had been created by the displacement. The sell-by date on the Yorkie wrapper of 17 January 2004 provides a useful *terminus ante quem* for this rather pragmatic episode. As excavation proceeded it became clear that the stone had originally been set in place using a carefully structured system of stone packing that had subsequently been disturbed by the pivoting of the megalith; the western face of the stone squeezing out packing stones whilst the base of the stone had ripped up through the eastern side of the socket. The stone had been set in a shallow, bowl-shaped hollow in the underlying natural that extended beyond the limits of the trench. This does not appear to have been a deliberately created feature (as opposed to a natural undulation in the bedrock)

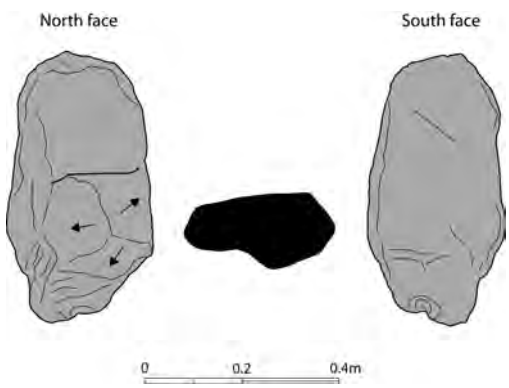

Fig. 5 Stone B (Lanacombe I)

though it is difficult to be definitive, as the small size of the excavation trench precluded further investigation. Into the hollow a V-shaped setting of small, upright sandstone slabs (typ. 0.2 x 0.12 x 0.03m) [1009] had been created (Fig. 6). This may originally have been part of a box-like structure extending into the unexcavated portion of the trench. Lining the base of this box and extending up the northern side was a firm yellow-brown silty clay containing moderate small subangular fragments of sandstone and rare medium sized angular chunks [1007]. To the north a series of smaller, sloping slabs (0.1 x 0.1 x 0.03m) had been wedged to provide further support to the upright as part of [1007]. The shape of the enclosed space thus created matched closely the profile of the stone base and would have served as an effective socket to anchor stone C in place. Between the upright slabs of [1009] and the edge of the hollow into which it had been constructed was a silty-clay containing fragments of sandstone. However, as [1009] provided a vital key for the consolidation and resetting of the stone into its original vertical configuration, the decision was taken to leave this latter deposit intact.

With stone C set vertically in place within this closely tailored box, further support took the form of larger blocks of sandstone (typically 0.2 x 0.25 x 0.16m) that were wedged up against the stone to the south and west [1002]. These may originally have formed a small cairn around the base that had subsequently been dispersed through weathering and disturbance. However, it should be noted that when the stone was toppled, a number of the stones making up [1002] were squeezed out to the west (perhaps erroneously giving the impression of deliberate cairning). After toppling, the base of the stone had ended up resting on the top of [1009], leaving a substantial void beneath. Into this void a loose, peaty soil containing common angular to subangular fragments of sandstone and abundant root material had accumulated. Although undoubtedly part of this fill had weathered into the void, this appears to have been a deliberate attempt to fill the stonehole, as attested by the confectionery wrappers discussed earlier. The stoniness of this fill may reflect the direct use of material that had been displaced from the upper levels of the stonehole fill (eg [1002]) by the base of the stone as it pivoted up.

Stone C was a large, irregular sandstone block (0.66 x 0.28 x 0.12m), triangular in profile and slightly curving along its length. Both the base and upper ends were wedge-shaped (Fig. 7).

Lanacombe IV (ENPHER MSO6965)

The setting comprises an estimated five component stones of which two (stones C and D) were recorded in 1989 as 'firmly set' and one (stone A) recumbent (Quinnell and Dunn 1992: 45). A further two possible stones (B and E) were noted though these could be natural outcrops (Fig. 2). The individual stones are subangular slabs of sandstone, varying in maximum dimension between 0.2 and 0.75m. Stone C was recorded as upright whilst stone D was sloping at an angle of 30° and located in an erosion hollow. In plan the principal stones (A, C, D) form an approximate triangle, 9m in length aligned north-west–south-east. The excavation focused upon stone D.

Lanacombe IV – Stone D

At the time of excavation stone D was very loose in its stonehole and despite being a substantial stone (standing to a height of 0.7m), could easily be rocked by hand. Interestingly the erosion hollow noted by Quinnell and Dunn was not evident, though the area was thickly overgrown with rushes which may have masked any such feature. The turf above the stonehole comprised a grey-black peaty soil containing abundant root matting [2001] and, against the southern face of stone D, a small, discrete concentration of sandstone fragments (0.1–0.2m). This may reflect an earlier attempt to stabilise the stone through limited cairning – its looseness and position in amongst the turf suggesting that this was a relatively recent activity. The turf quickly came down on to the natural – a grey-brown silt containing abundant small, subangular fragments of sandstone. Removal of stone D revealed an elongated void (corresponding to the standing position of the stone) (0.36 x 0.14m) marking the northern edge of the original stonehole [2003]. At the eastern and western ends of the void were tapering wedges of dark-grey peaty soil, rich in root-matting [2002], that had clearly percolated into the voids created by the recent disturbance to the stone. Following removal of [2002] the stonehole was half-sectioned. The stonehole was ovoid in shape (0.4m x 0.32m) and much larger than the void noted above. In profile the cut was stepped, reaching a maximum depth of 0.2m below the surface of the natural along the northern edge (corresponding to the void left by the removed upright). After 0.09m it stepped up steeply

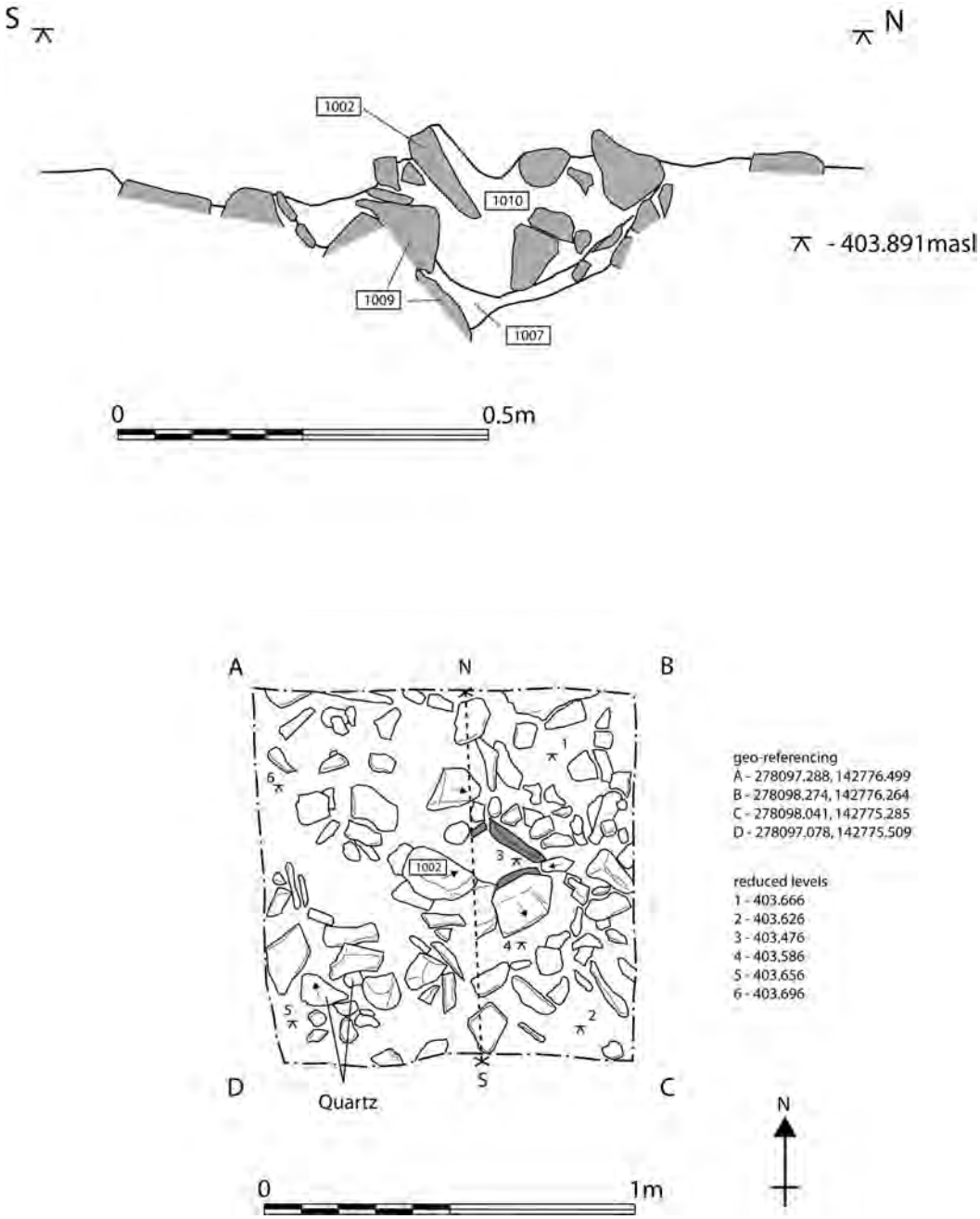

Fig. 6 Excavation of stone C (Lanacombe I). The stone shaded in the plan corresponds to context [1009]

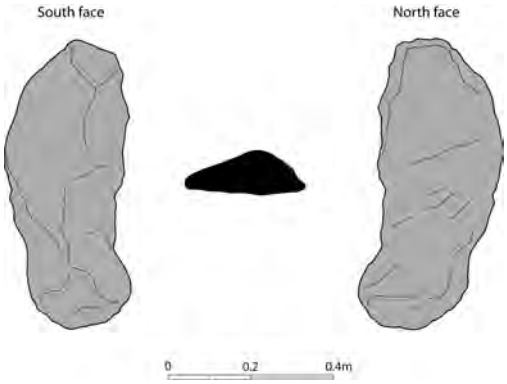

Fig. 7 Stone C (Lanacombe I)

0.05m, rising gently upwards for another 0.2m before sloping steeply to the surface of the natural (Fig. 8). Filling the step area of the stonehole, and serving to hold the upright stone firmly into place, was a compact deposit of dark grey-brown sandy silt containing common medium-sized angular and subangular stones [2004]. This appears to be a mineral soil that had been used to pack the construction cut once the upright stone had been set in place.

In comparison to the Lanacombe I stones, the lack of any substantial stone packing was unusual, as was the digging of a discrete, over-sized stonehole. The stepped profile of the stonehole may have been deliberate – a slot cut in the base hard against the northern edge into which the stone was placed. It could equally reflect compression of the natural silts over time resulting from the weight of the stone (it took two to safely lift) coupled with its sharply pointed base, or the deliberate pounding of the upright into the stonehole in the manner of a gatepost. No artefactual material was recovered from the excavation and an environmental sample of [2004] revealed no organic material.

Stone D [2005] took the form of a large, elongated diamond (1.01 x 0.31 x 0.18m), rectangular in section and tapering at each end to a point. The stone was thickest (0.18m) in its uppermost portion, becoming thinnest (0.09m) towards the basal spur (Fig. 9).

DISCUSSION

At Lanacombe I the excavation of stones B and C bring the total investigated to three, each of which relied upon a different construction technique. In the case of stones B and C the suggestion is of an additive process, with the upright stone fixed into place through the addition of material, principally stone. At stone C this process was notably structural, involving the careful creation of a socket of stone slabs into which the stone could be slotted. This finding may have broader implications for the interpretation of other recently excavated features on Lanacombe, in particular two small cairns excavated in 2009 (Gillings *et al.* 2010b). This excavation revealed the presence of unusual box-like structures at the centres of the cairns. Although recorded as tentative cists, these features were markedly irregular in form and as a result were difficult to envisage as formal chambers. What they do resemble, albeit on a much larger scale, are the stone C socket and it is quite possible that they were originally designed to hold upright stones, with the surrounding cairns present as packing material in a manner analogous to [1002]. At stone B the process was likewise additive, but seems to have been more pragmatic, with selected stones used to wedge the upright level before stone and soil were packed around it. These technologies stand in stark contrast to that used to erect stone H (see Gillings *et al.* 2010a), where a stonehole was dug directly adjacent to an area of outcropping against which the stone was set. The remainder of the stonehole was then filled in two distinct stages; a soil deliberately sealed by a spread of gravelly material. Unlike stone H there was also no evidence of any surface structure around the stoneholes, though the small size of the excavated trenches would have made identification of such difficult. As to what these differences mean, in the absence of firm dating evidence and larger scale excavation it is difficult to say. Do the different technologies reflect different groups of people; stones erected at different times; practical responses to the size and shape of a given upright; practical responses to the underlying geology; some combination or none of the above? Likewise, it is difficult to assess the extent to which later attempts to re-erect or consolidate the stones may have contributed to the features recorded, given that there is attested 18th-century activity at Lanacombe I (in the form of an inscribed date on stone L) and early 21st (from the packaging material). One interesting parallel between stones H and B concerns the deliberate placement of a large tabular piece of quartz close to the edge of the upright, a practice which does suggest some degree of shared concern in the

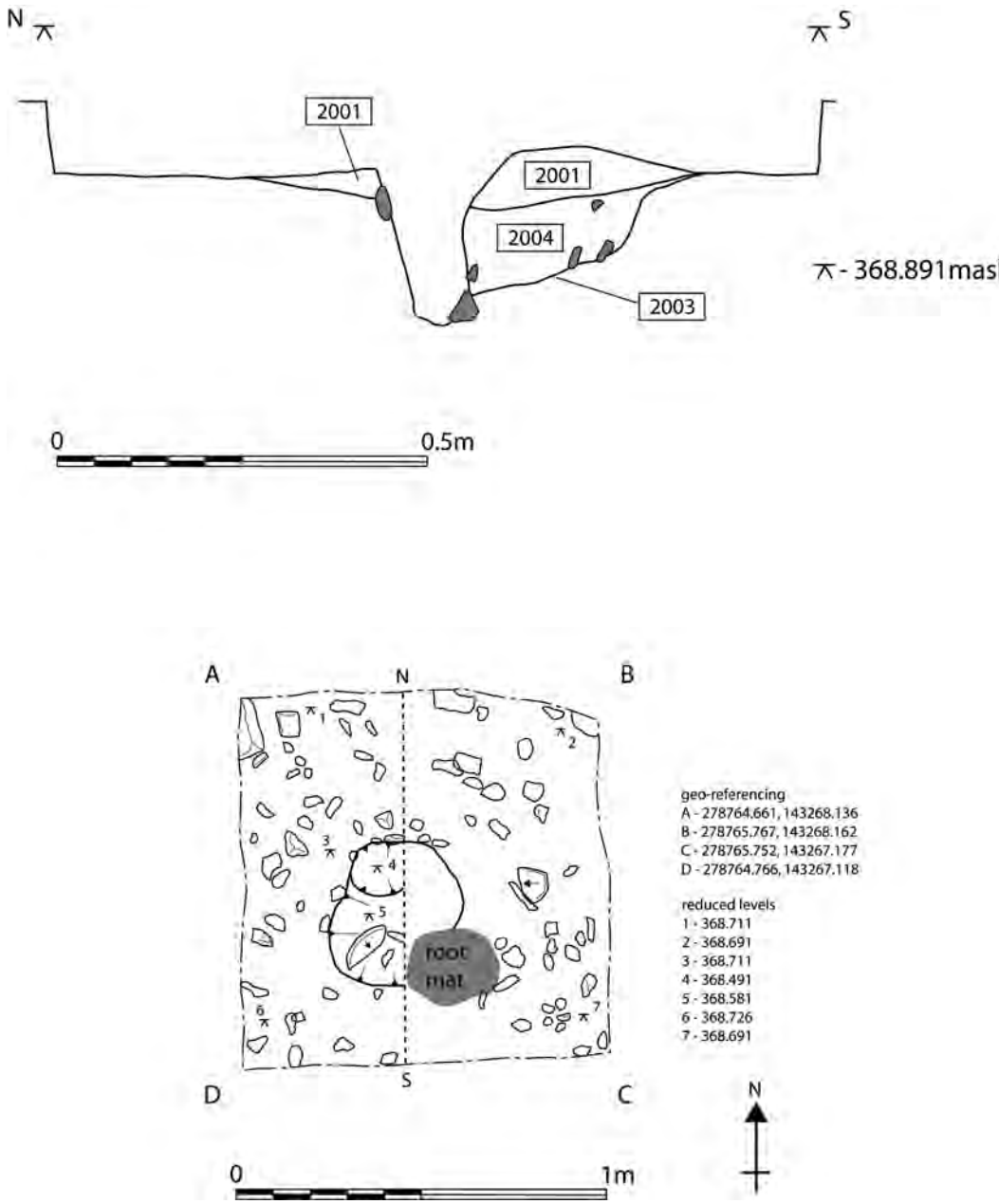

Fig. 8 Excavation of stone D (Lanacombe IV)

erection of these two stones. At Lanacombe IV the technique of digging a broadly circular stonehole with a stepped base, into which the upright was placed has striking parallels with that employed at stone C of Lanacombe III (Gillings *et al.* 2010a). In each case the stone was substantial and the base markedly spiked, and it may well be that here we are beginning to see evidence of a specific response (whether functional or otherwise) dictated by stone shape. In the absence of any other excavated

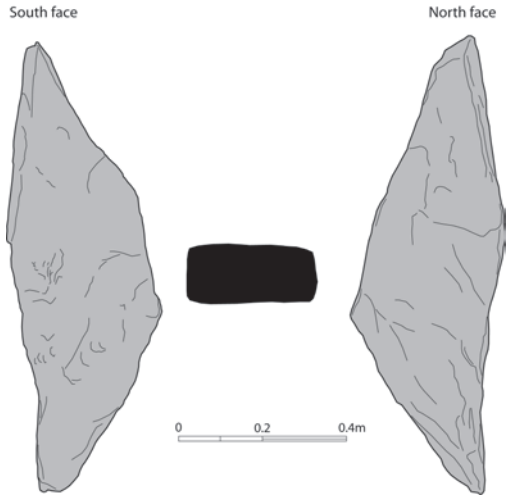

Fig. 9 Stone D (Lanacombe IV)

stoneholes at either of the sites it is difficult to speculate further.

GEOPHYSICAL SURVEY AT LANACOMBE IV

In order to shed more light upon the Lanacombe settings, a programme of geophysical survey has been taking place centred upon the group of four monuments on the south-west side of Lanacombe (Fig. 1) and the stretches of open moorland between them (for detailed results to date see Gillings *et al.* 2010a; Gillings *et al.* 2010b). The soil resistance survey of Lanacombe IV reported here was carried out using a Geoscan RM15 meter and twin-probe array with a sample interval of 0.5m and traverse interval of 1.0m. All processing was carried out using Geoplot 3.

The results of the resistance survey have highlighted a number of features (Fig. 10). Most evident are the large zones of relatively high resistance that dominate the plot. Along the northern edge this marks the beginning of the steep slope down to Hoccombe Water, whilst in the remainder of the survey area it reflects underlying geological trends, corresponding to areas of shallower soil and outcropping bedrock. Interestingly, the standing stones that make up the setting are clustered along the very edge of this latter high resistance area; a trend seen at all of the Lanacombe sites so far investigated (Gillings *et al.* 2010a).

In archaeological terms several features are of interest. The most striking relate to 20th-century military use of the promontory upon which the site is located, presumably on account of the extensive views to the north-east. A number of impact craters were evident in the immediate area of the setting (presumably from mortar fire) along with a large number of foxhole/shell scrapes along the break of slope to the north as well as further along the promontory. In each case these features generated a characteristic high resistance signature, as was previously noted in the resistance survey of the Tom's Hill stone setting (Gillings *et al.* 2010a). As well as these military features two possible areas of platforming were identified during the survey some 26m to the north-north-west of the stones which can be seen in the survey results as roughly circular areas of low resistance. As to whether these reflect prehistoric features, or are associated with the later military activity is unclear in the absence of excavation. Of more interest was a rather diffuse, circular high-resistance anomaly 16m to the north of the setting. Taking the form of a 2–3m wide arc this defines an 11m radius circle with a clear break to the west.

Discussion of the results

The results have once again stressed the value of detailed resistance survey in the investigation of stone settings. Whilst the diminutive nature of the stoneholes makes it unlikely that former stone positions will be detected directly, it has proven useful in confirming the strong correlation noted at Lanacombe I, II and III between the location of the setting and bands of raised resistance readings. As survey of intervening blocks of moorland between the settings has demonstrated, this relationship is an exclusive one (Gillings *et al.* 2010b). These discrete bands appear to be natural geological features (see Gillings *et al.* 2010a), corresponding to areas where the overlying soils are notably thinner and subsurface bedrock correspondingly shallower. In saying this, the results of the excavation of stone B at Lanacombe I (deposit [1008]) discussed above do raise the tantalising possibility that these naturally stony areas may have been deliberately accentuated in prehistory through the deposition of diffuse spreads of field clearance.

At present the significance of this observed correlation between stone settings and zones of high resistance is unclear: does it reflect a deliberate preference on the part of those erecting the miniliths, or are we only seeing settings on these geological features because they have not been enveloped by

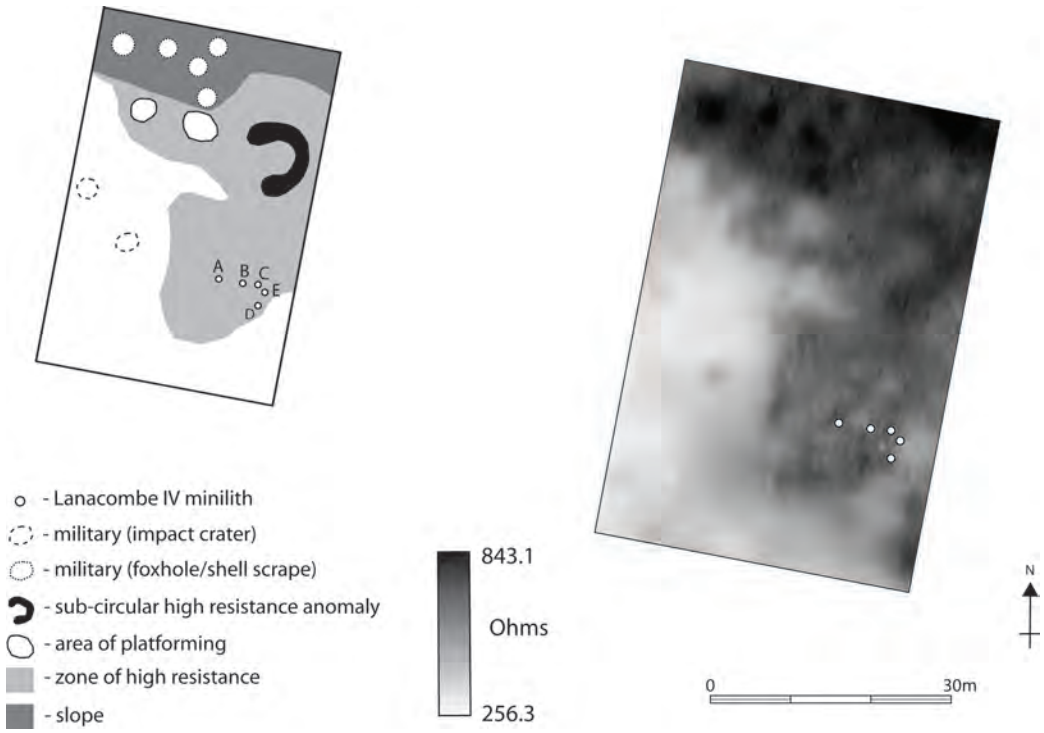

Fig. 10 Geophysical survey results at Lanacombe IV

peat soil and the thick growths of purple moor grass that develop over it? The weight of evidence and observation would favour deliberate placement of the stone settings on these areas. The second question concerns their visual distinctiveness. They certainly maintain a characteristic pattern of short grass and rush vegetation today and it is interesting to speculate as to whether they would have been equally distinctive in antiquity.

In terms of archaeological responses, whilst the survey is dominated by 20th-century military features (which are, of course, of interest in and of themselves) the results have highlighted the presence of possible structural features in the immediate vicinity of the setting taking the form of platforms and a circular high-resistance anomaly. It is possible that the former are related to the modern military earthworks (fox-holes and impact craters) that surround the site. The latter is more interesting as its form, size and location (close to a setting) have strong parallels with a feature identified adjacent to the Lanacombe III setting (Gillings *et al.* 2010a). Excavation carried out in 2009 revealed this to be a shallow spread of stone sealing a buried soil and gulley that produced early–middle Bronze Age C14 dates as well as worked flint (Gillings *et al.* 2010b).

CONCLUSION

On the basis of the results gained the value of carrying out consolidation work in conjunction with geophysical survey and archaeological excavation should be clear. Geophysical survey has once again revealed the suggestion of further structural features in the immediate vicinity of the settings and in so doing has stressed the importance of seeing the settings not as isolated ritual monuments but instead components of a much busier prehistoric landscape. It has also shed light upon the extent (and impact) of 20th-century military activity in and around the surviving settings. Although small in scale, the excavations have served to increase our knowledge and understanding of the character of the megalithic settings of not only Lanacombe, but Exmoor more broadly. They have also served an important

conservation function. This is in part through enabling the stones to be accurately re-erected and sensitively fixed in place, but perhaps more importantly through the development of a detailed understanding of how the stones were originally erected and as a result how they might best be actively protected and conserved. The limitations of such work are also evident, as at Lanacombe I where important elements of the archaeology extended beyond the confines of the trenches. In addition, whilst such stone-focused excavation can tell us a great deal about the individual circumstances surrounding each component stone, it tells us little about what was taking place between the stones and between the setting and its broader landscape context. It also does little to ground-truth the results of the geophysical surveys. For these larger scale excavations are urgently needed.

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