EXCAVATION OF THE PREHISTORIC LANDSCAPES OF LANACOMBE, EXMOOR, 2009–10

MARK GILLINGS*

with contributions by Alastair Hill*, Joshua Pollard** and Ruth Young*

*School of Archaeology and Ancient History, University of Leicester, Leicester, LE1 7RH,
**School of Humanities, University of Southampton, Southampton, SO17 1BJ

INTRODUCTION

Current understandings of the upland landscapes of Exmoor during the Neolithic and Bronze Age periods are dominated by stone monuments (in a host of configurations) along with a varied assemblage of over 370 cairns and round barrows, ranging from 35m diameter structures dominating the ridge-tops to barely perceptible shallow spreads of stone only metres across, hidden within the moor grass (Riley and Wilson-North 2001, 23–40). Whilst prehistoric field systems have been identified on the moor, they are few and far between, with only ten recorded, marked by clearance cairns and pockets of upstanding earthwork and stone banks – a stark contrast to the extensive systems documented on Dartmoor (Newman 2011, 60–82). Settlement evidence is likewise sporadic, Exmoor's 45 known hut circles and house platforms seemingly insignificant when compared with the 4000 or so recorded on Dartmoor (ibid., 61; Riley and Wilson-North 2001, 42). The latter has resulted in a tendency when discussing the emergence of field systems to cite Exmoor as an impoverished example of the patterns seen on the granitic moorlands of Dartmoor and Bodmin with which it is commonly grouped (eg Yates 2007, 15–16). In short the relative lack of substantial stone boundary features on Exmoor has resulted in a tendency to date to downplay it in discussions of the emergence of large-scale tenure in the Bronze Age (ibid., 71–2).

The work reported here forms part of a broader research initiative that is seeking to explore in detail the character of Exmoor's surviving archaeology and critically re-evaluate its significance with respect to current interpretations of processes such as monument construction and the transition away from landscapes dominated by monuments that took place in the period *c.* 2200–1500BC. This is a time characterised by the emergence of a host of new, distinctive monumental expressions in many upland areas, involving the manipulation of standing and recumbent stones into rows and circles, alongside the gathering and modelling of piles of stone (into cairns, ring-cairns and spreads). Critically, it is also a period when a more visible settlement archaeology of roundhouses, fields and boundary systems emerges (Bender *et al.* 2007; Bradley 2007).

The focus of the current work has been the eastern end of Lanacombe, in the Upper Badgworthy catchment of central Exmoor (Fig. 1), centred on a group of small, seemingly isolated megalithic monuments (stone settings) (Riley and Wilson-North 2001, 31; Gillings *et al.* 2010; Gillings and Taylor 2011). The last decade has witnessed renewed research

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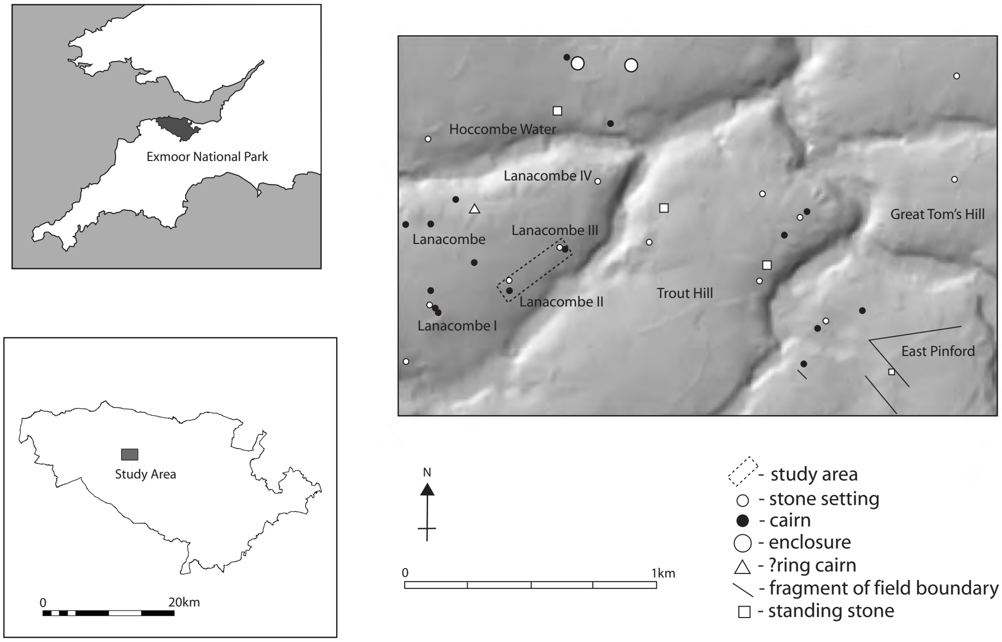

Fig. 1 Location of the study area

interest in the small stone settings of Exmoor; a distinctive component of the moor's surviving prehistoric archaeology whose diminutive size and geometric configurations have few parallels (Tilley 2010; Gillings *et al.* 2010). If a leitmotif can be discerned within the current corpus of 59 known sites, it is that of inconspicuousness, the stones sitting in splendid isolation on the moor hidden by the surrounding grass and rushes. This combined sense of isolation and concealment is certainly striking to modern visitors to the sites and has coloured the few attempts to move beyond merely noting their existence (Grinsell 1970) or ascribing them a generalised 'ritual/ceremonial' function (eg Riley and Wilson-North 2001, 31) to instead attempt to explain the meaning of these enigmatic structures. Take for example the recent suggestion by Tilley that the settings served to mark significant, hidden places in a prehistoric landscape of isolated hunter-fisher-gatherer communities; specifically deer-hunting locations, their geometrical configurations metaphorical representations of the structure of the hunting parties who congregated there (Tilley 2010, 338–47).

As part of an initial phase of fieldwork on Lanacombe a total 1.8ha of open moorland in and around two of the settings has been surveyed using soil resistance survey in order to explore the landscape context of the settings (technical details can be found in Appendix 3 – for detailed discussion of the preliminary results see Gillings *et al.* 2010). The results have been wholly unexpected, revealing what appeared to be traces of a regular network of linear boundaries around one of the settings (Lanacombe II), a circular structure adjacent to a second (Lanacombe III) along with a scatter of small, previously unrecorded cairns on the open moor between them (Fig. 2). If the very faint anomalies detected by the survey did indeed correspond to prehistoric boundary and structural features, this would have important implications not only for recent interpretations of the role of stone settings (see above), but also the frequency and extent of field-systems on Exmoor. Perhaps most significantly, they raise the possibility of field-systems that are not characterised by substantial stone banks or earthworks and are thus invisible to aerial and traditional field reconnaissance (Riley and Wilson-North 2001, 40–54). This in turn would raise questions regarding the tendency to downplay

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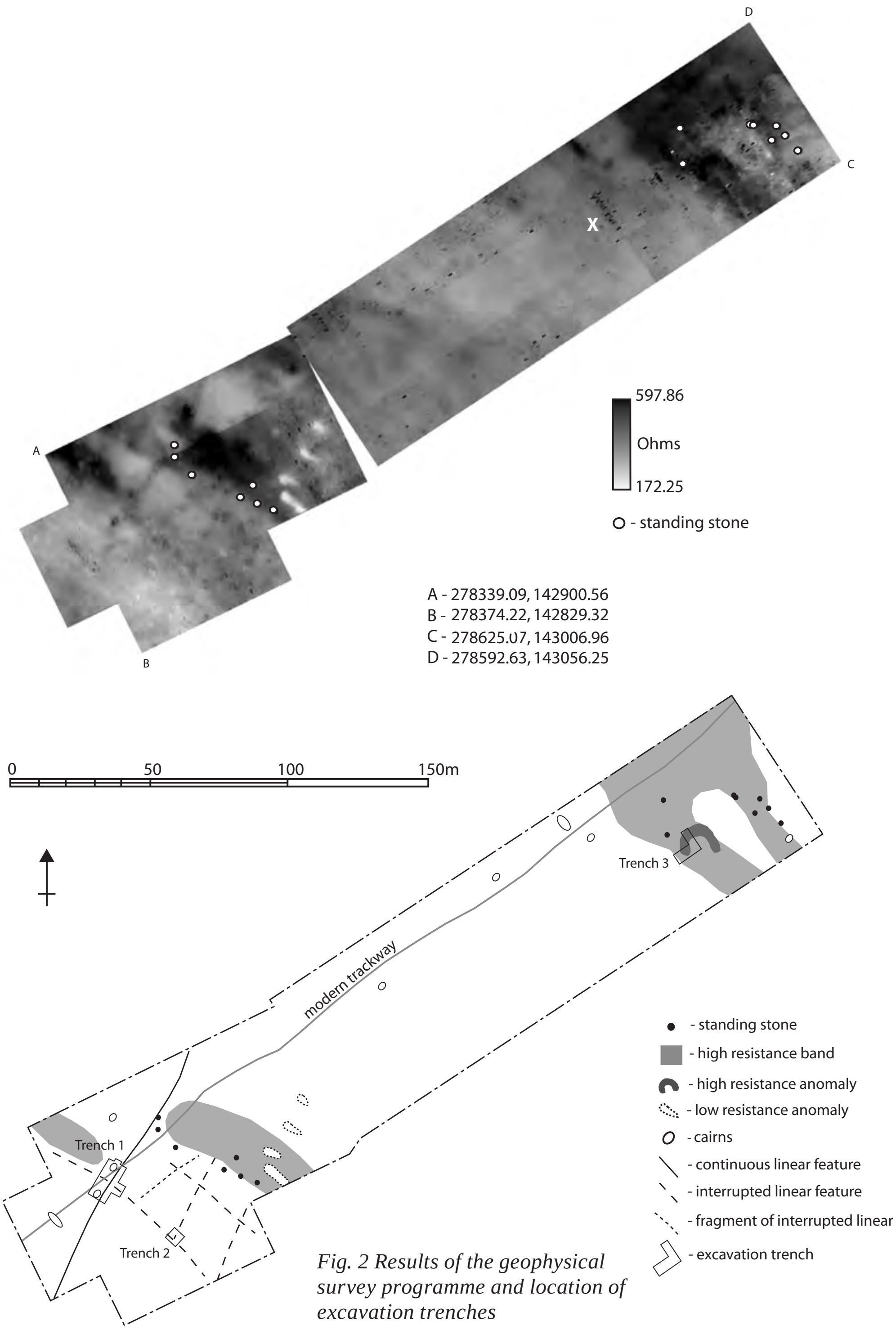

Fig. 2 Results of the geophysical survey programme and location of excavation trenches

Exmoor when discussing evidence for prehistoric field systems on the south-west uplands – could it be that Exmoor too has extensive prehistoric field systems, only of a very different form to those surviving on Dartmoor?

THE EXCAVATIONS

During 2009 and 2010 a series of excavations were carried out on Lanacombe in order to ground-truth the geophysical anomalies.[1] One block (Trenches 1 and 2) focused upon the linear anomalies to the west of the Lanacombe II stone setting; the second (Trench 3) targeted the circular anomaly to the west of Lanacombe III (Figure 2). In each case the features investigated were located upon soils of the Pinkworthy Series, a half bog soil characterised by a brown fibrous peat over a thin layer of silt loam, the latter lying above gleyed B and B/C horizons containing weathered fragments of sandstone and slate (Curtis 1971, 41).

Lanacombe II – Linear anomalies and cairns (Trench 1)

Trench 1 investigated a stretch of the continuous linear anomaly between two undated cairns (the latter just visible at the surface) and the junction it formed with an intermittent, curving north-west–south-east linear. The cairns were typical of the shallow, diffuse features often found in association with stone settings (Tilley 2010, 332) though their true distribution may be much more extensive given the difficulty of finding such features in amongst the moor grass. All we can note with certainty is that they differ markedly in scale from the larger, presumably funerary, cairns and barrows that occur across the moor (Riley and Wilson North 2001, 32–8); there has been no systematic, published survey of these 'lesser' cairns and none have been excavated.

The main body of Trench 1 was 15 x 7.5m aligned along the contour with a drop of 0.88m between its upper and lower edges. Directly beneath the turf [001] was a uniform spread of loose sub-angular fragments of shattered sandstone (a common feature of all of the trenches excavated). This spread was photographed and then removed as part of an initial clean revealing a series of features defined in large part by concentrations of sandstone. To ensure clarity in the detailed discussion of the results that follows, Trench 1 has been partitioned into three areas (A, B, and C) corresponding to the principal features investigated (Fig. 3).

Area A – the eastern cairn (cairn 1)

As noted, the cairn appeared at the surface as a low, irregular spread of sandstone fragments just poking through the moor grass and there was every expectation that it would correspond to a shallow, haphazard accumulation of clearance material. It rapidly became clear that the cairn was not only substantial but displayed a strong degree of structural regularity in its form. At its core was a small, irregular void surrounded by a rectangular arrangement of layered, steeply sloping slabs of sandstone (max. dimension 0.6m) [004]. It appears that rather than a deliberate cist, the void was a consequence of (rather than reason for) the vertical layering approach adopted (Figs 4 and 5). This technique of construction resulted in the creation of an approximately square cairn of large sub-angular sandstone slabs (typ. 0.3–0.6m in maximum dimension). Further sub-angular chunks of sandstone (typ. 0.1–0.3m) were then piled against this to the north-east and south-west creating a boat-shaped structure (4.6 x 1.6m, height 0.45m) whose long-axis was aligned along the contour. There was no evidence of any period of stabilisation between construction of the core and the 'prow' and 'stern' implying either a single phase of construction or a relatively short period between the core and its subsequent elaboration. To determine the existence of any pre-cairn activity a 1.0m wide slot was excavated against the north-east trench edge through the core. Sealed beneath and extending 1.25m to the south-east (in the downslope lee of the structure) was a thin deposit of dark yellow-brown sandy silt [011] containing common sub-angular chunks of sandstone (typ. 0.2m) (Fig. 4). This appears to be the only surviving remnant of a buried soil predating construction of the cairn and preserved beneath it and the downslope spread of material subsequently piled against it (see below). Although extensively sampled, this deposit proved free of artefacts and environmental material except for rare flecks of charcoal (Appendix 2).

Subsequently the south-west end of the cairn was covered by a relatively shallow spread of angular to sub-angular pieces of sandstone (typ. 0.1–0.3m) at its maximum 3m wide and aligned on

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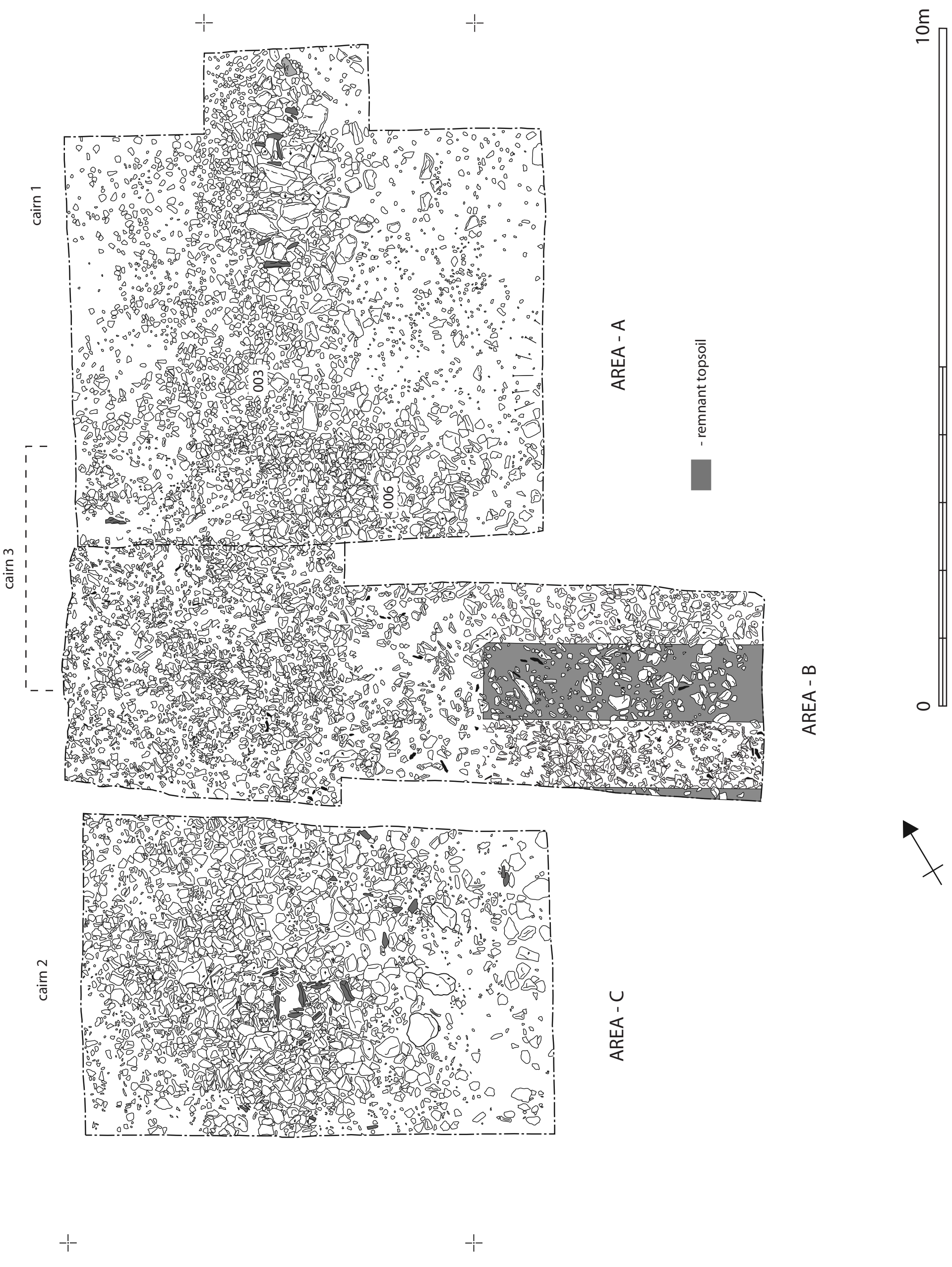

Fig. 3 Trench 1 following removal of topsoil. This shows the final phases of construction of cairns 1 and 2 and the spread of stone between them [003] generated in large part by the destruction of cairn 3. The figure also clearly indicates the three areas (A,B and C) that have been used to structure discussion of the excavated features

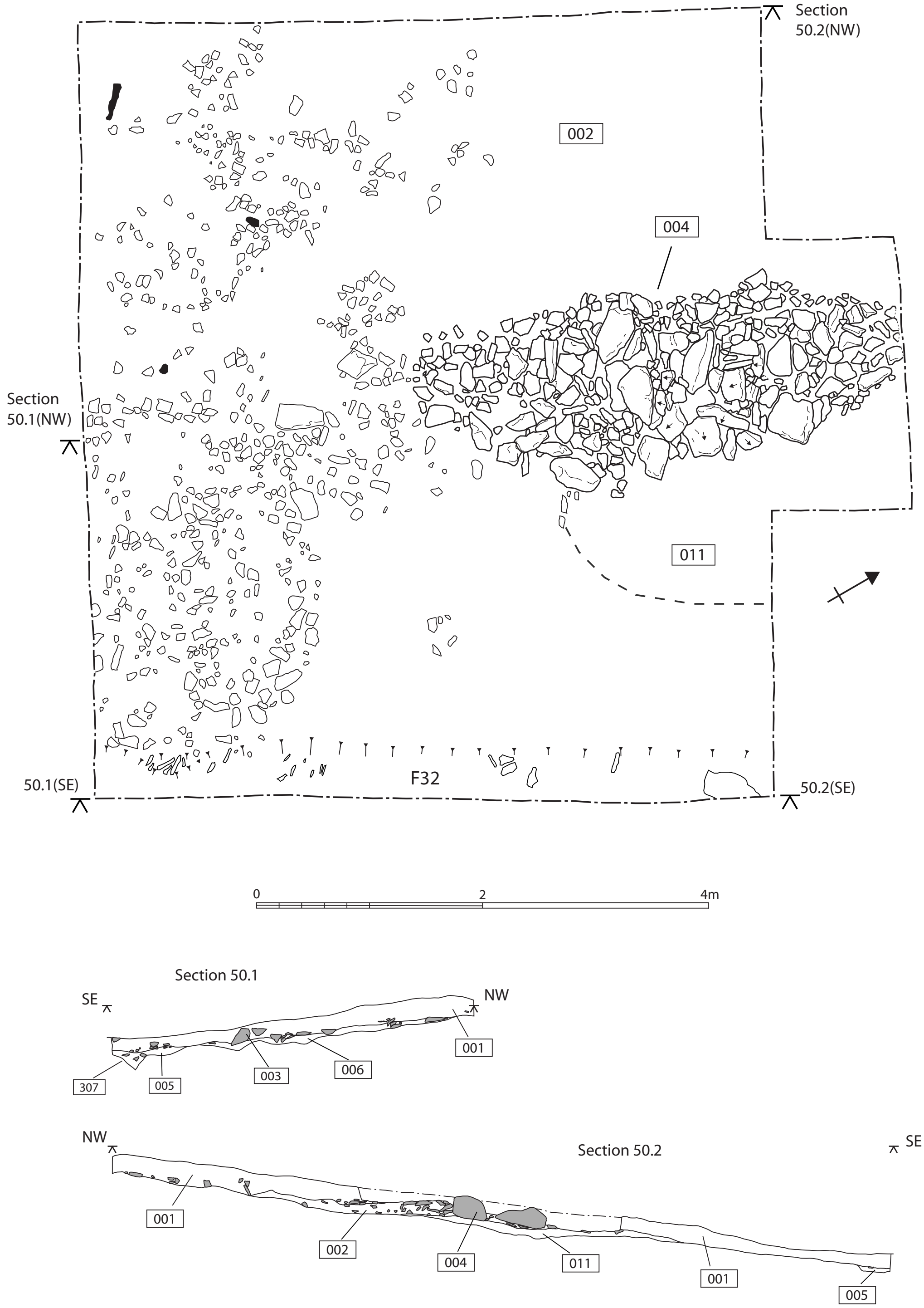

Fig. 4 Trench 1, Area A: plan and sections showing primary construction phase of cairn 1 and its relationship to the F32 linear

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Fig. 5 Cairn 1 under excavation showing its distinctive 'boat-shaped' form; view north-east).

its long axis [003] (Fig. 3). Unlike the main body of the cairn the sandstone fragments here were generally smaller and more loosely arrayed. There was no evidence of any period of stabilisation prior to the deposition of [003] and the haphazard nature of the spread made it difficult to ascertain whether it was the result of a single, or progressive, dump of material. A thin (0.05–0.1m) layer of hill-wash had accumulated against the upslope edge of this material [002] (Fig. 4).

Artefactual material was limited to a single utilised flint flake from the hillwash deposit (Appendix 1 – SF1) and a large piece of non-diagnostic flaked stone from the very top (SF2). With regard to absolute dating, bone does not survive in the acidic soils and insufficient charcoal was recovered from samples of the buried soil to furnish a date.

Area C – the western cairn (cairn 2)

Once again, the rather humble surface indications masked a more substantial and structurally complex feature than originally expected (Fig. 6). One of the most striking features of the cairn was a stone cist located in the centre of the structure and marked by substantial orthostats (typ. 0.4m long by 0.3m high and 0.06m thick) on three sides and a sloping stone to the north-east [010]. The cist was clearly a primary component of the cairn, the base formed by the upper surface of the B horizon and the bounding orthostats acting as the hub around which the subsequent cairn structure was laid out. The cist fill was a soft, dark reddish-brown sandy silt [009], becoming slightly more clayey with depth and containing rare pieces of sub-angular sandstone (typ. 0.01m). Rather than a single bulk sample, the fill was excavated in three approximately equal spits in order to mitigate against any possible contamination of the upper fraction. No artefactual material was evident, though small fragments of Oak charcoal were recovered by flotation from the middle spit (Appendix 2). Set around the uprights and effectively holding them in place were substantial sandstone blocks, the largest excavated example

Fig. 6 Trench 1, Area C: plan of cairn 2 structure; north-east of section line (irregular due to the stone make-up of the cairn) the cairn has been excavated down to its primary construction phase; south-west of section line the later [012] spread has been left in situ (see also Fig. 3). Section derives from the excavation of a 0.5m slot through the primary cairn structure

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comprising a sub-rectangular slab 0.64 x 0.44 x 0.20m in maximum dimension. Forming a perimeter to the cairn at the southern edge was a series of rectangular sandstone blocks angled in towards the cairn centre to form a revetment on the downslope side of the cairn (Fig. 6 – plan). The area between this perimeter and the larger stones defining the core had been carefully infilled with large chunks of sandstone interspersed with blocks of very clean, sticky soil [305], raising the possibility of a turf component to the structure; a feature absent from cairn 1. Although only the north-east half of the structure was fully excavated, the suggestion is once again of an elongated (oval) primary cairn sharing a long-axis with cairn 1 (Fig. 11).

At some point in time the footprint of the cairn (though interestingly not the height which suggests that the top of the cist was actively respected) was enlarged through the addition of loose piles of sandstone [012] ranging in size from small sub-angular to angular chunks (typ. 0.15m) to more rounded boulders and slabs (max. 0.4m) (Figs 3 and 6). It was not clear whether this was the result of a single episode or more progressive addition of material and once again there was no conclusive evidence for any stabilisation between the original construction phase and its extension. The final structure was broadly circular in shape (diameter 4.0m), showing little evidence for any deliberate or coherent pattern to the added stone beyond a tendency for large blocks to cluster towards the centre. The only exception to this was a group of three very large boulders that appear to demarcate a rough perimeter (kerb?) along the south-east (downslope) edge. Against the upslope edge of the cairn was a deposit of firm, dark yellowish-brown silty clay [013] containing common sub-angular pieces of sandstone. As with cairn 1 this appears to be a thin deposit of hillwash.

With regard to pre-cairn activity, a 0.5m slot was excavated through the cairn bisecting the north-eastern edge of the cist (Fig. 6 – section). Sealed beneath the largest of the flat boulders directly adjacent to the cist was a surviving buried soil [309] on top of which was a dark lens of grey-black peaty material (sample 30–6). Otherwise there was little evidence of any preserved material beneath the structure. In direct contrast to cairn 1, both the buried soil [309] and blocks of suspected turf [305] were visibly rich in flecks of charcoal. To the south-east of the cist, in the area between the core and the revetting, a series of small flat stones had been pushed into the surface of the subsoil. It was unclear whether these resulted from a deliberate phase of levelling

TABLE 1 – CALIBRATED DATES FROM WESTERN CAIRN (USING OXCAL V4.1, THE INTCAL09 DATASET AND THE PROBABILISTIC METHOD)

Sample	Context	Sample number	Description *	Date BP	Calibrated (cal BC) 95.4% probability	δ13C	Range ** 95.4% probability
SUERC-34247	309	LAN_10_30-5	Buried soil Bulk sample	3405± 30	**1862-1622** 1862-1852(1.3%) 1772-1622(94.1%)	-26.2‰	**1769 – 1625**
SUERC-34248	309	LAN_10_30-7	Buried soil Bulk Sample	3220 ± 30	**1605-1421** 1604-1586 (2.8%) 1536-1420 (92.6%)	-26.4‰	**1599 – 1429**
SUERC-34246	305	LAN_10_30-2	Turf layer Bulk sample *Quercus* (Oak)	3300 ± 30	**1664-1501** 1664-1651 (2.3%) 1642-1501 (93.1%)	-26.3‰	**1666 – 1501**
SUERC-34249	305	LAN_10_2	Turf layer Bulk sample	3395 ± 30	**1757-1616** 1757-1616 (95.4%)	-25.7‰	**1753 - 1619**
SUERC-27930	009	LAN2_09_1003	Cist fill Bulk sample	3835 ± 30	**2458-2200** 2458-2418 (7.2%) 2408-2374 (8.2%) 2368-2200 (80%)	-25.7‰	**2459 - 2155**

* Species are indicated only where identification was possible
** Quoted range was generated using the intercept and single floruit options in OxCal 4.1

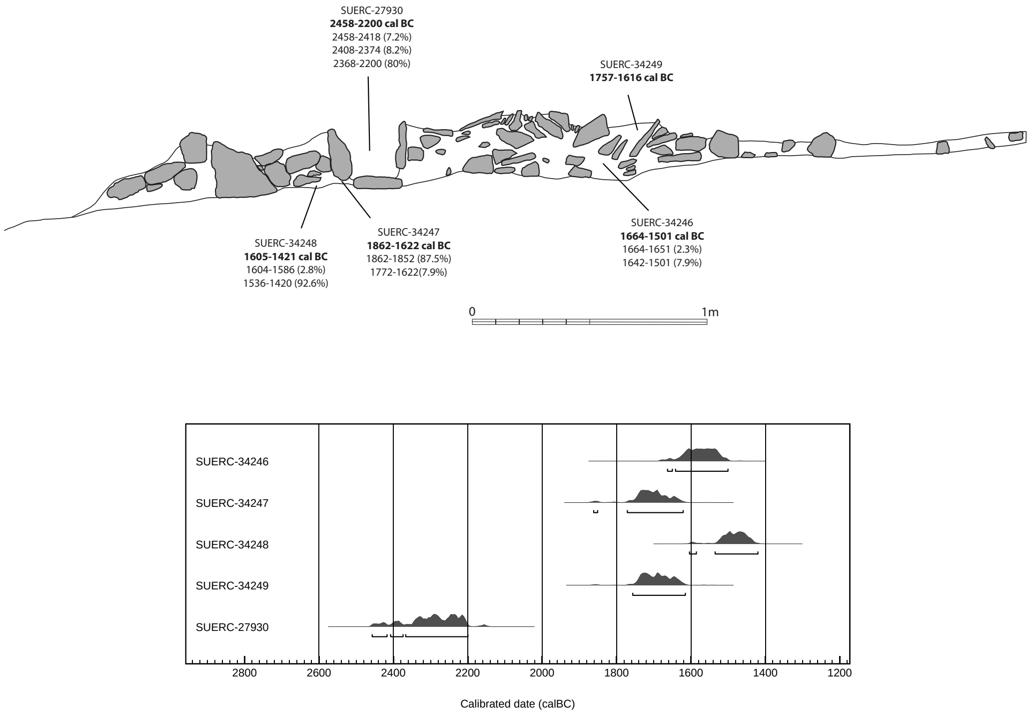

Fig. 7 Radiocarbon dating of cairn 2

and consolidation prior to the construction of the cairn or from compression caused by the weight of the large stones placed above.

No artefactual material was recovered during excavation of the cairn, but flotation of samples from the buried soil [309] and construction turf [305] did yield sufficient charcoal for C14 dating (Fig. 7; Table 1). All of the potential dating samples were based upon charcoal fragments recovered from flotation (ie bulk samples). Where identification was possible, the wood proved to be exclusively Oak. This raised a dilemma, insofar as the problems of mixing and residuality raised by bulk, as opposed to single entity or optimally selected samples, have been well-rehearsed (eg Ashmore 1999; Bayliss *et al.* 2011, 38–44). In addition, the fragmented nature of the charcoal meant that identification to species was only possible in a small number of cases (where it was not possible to determine whether the sample derived from heartwood or sapwood). The samples were therefore far from ideal, providing at best *termini post quos*, and a persuasive case could have been made to forego any radiocarbon dating at all. In practice, the decision was taken to date a suite of five samples from the cairn on the pragmatic grounds that, given the lack of any prior excavation or dating of such cairn features, even crude *termini post quos* would add to our sum of knowledge of these ubiquitous, yet poorly understood, structures. Of the five samples dated four derived from material sealed by (or utilised in) the primary phase of cairn construction. Two of these were from the buried soil [309], one sealed by a cist orthostat (SUERC-34247) and the second a large sandstone boulder supporting it in place (SUERC-34248). The remaining construction samples relate to the suspected turves used to develop the cairn around the cist-boulder core [305]. One of these (SUERC-34246) came from very close to the base and could feasibly correspond to a further patch of buried soil; the second (SUERC-34249) was taken towards the top of the cairn. The final sample (SUERC-27930) derived from the middle portion of the cist fill.

The four dates relating to the cairn structure (SUERC-34246; 34247; 34248; 34249) show little conformity to the assumed stratigraphy. This is

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undoubtedly a result of the decision to date bulk samples of a long-lived species (Oak) present in the turf/buried soil; material that relates not to the construction event per se, but factors such as the age of the parent tree at death and the burning activities that introduced the charcoal into the soil. As a result the best the dates can offer is a *terminus post quem* for cairn construction. Taking the most recent of the pre-cairn dates (1599–1429 cal BC – SUERC 34248) this suggests that construction took place at some point after the very end of the early Bronze Age (Pollard and Healy's Period 4) and beginning of the middle Bronze Age in the region (Webster 2008, 76–7, 117). That burning events were taking place in the vicinity well before construction of the cairn is suggested by SUERC-34249 (1753–1619 cal BC) and most notably SUERC-27930 (2459–2155 cal BC – the end of the Neolithic, falling between Pollard and Healy's Periods 1 and 2) the latter implying that the cist fill incorporated material already centuries old when originally deposited.

Area B – the linear anomalies (Features 31–34)

Upon removal of the thick mat of moor grass, the central portion of Trench 1 was characterised by a dense spread of small sandstone fragments which appear to have resulted from the levelling and dispersal of a third cairn that originally sat midway between those described above (Fig. 3). The latter appears to have been of markedly different form to cairns 1 and 2, lacking any of the internal structure or larger blocks of stone. All that survived of this structure was a 0.3m wide band of sandstone fragments describing a

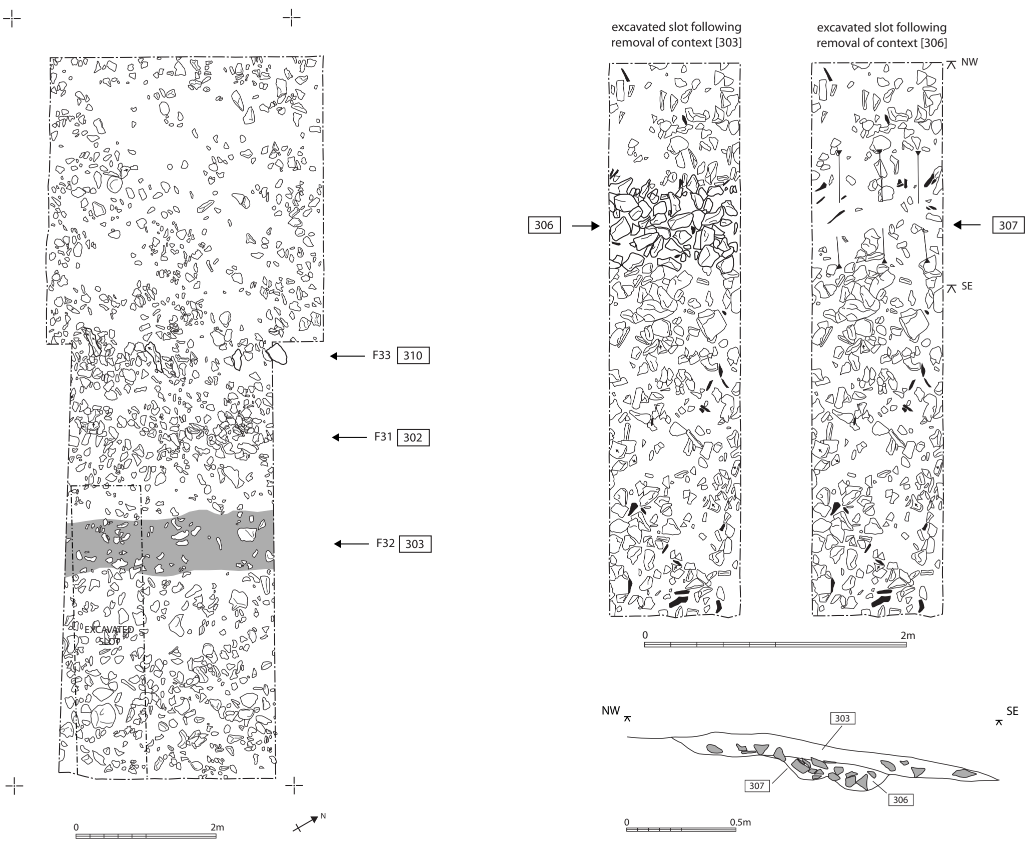

Fig. 8 Trench 1, Area B: parallel linear features (F31–33) following initial clean; plans and sections on right show detail of slot excavated through F32 (see also Fig. 9)

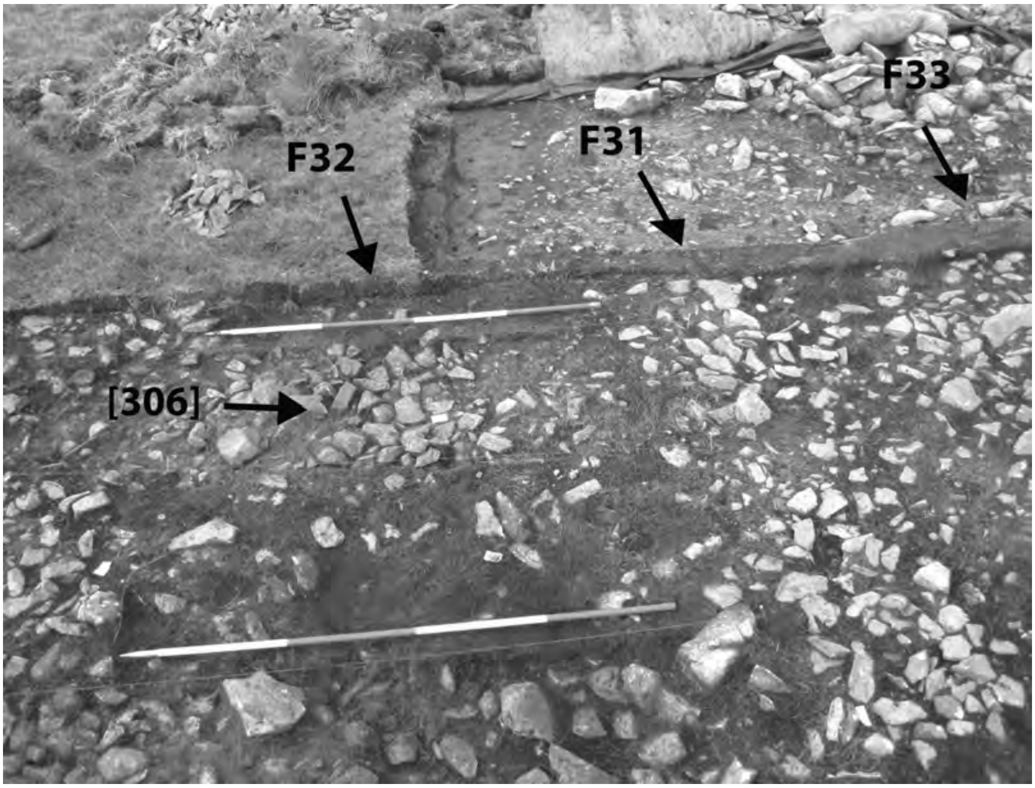

Fig. 9 F30–32 looking south-west, showing the slot through F32 under excavation (see also Fig. 8)

1.9m diameter circle. In the centre was a smaller concentration of stone some 0.5m in diameter. Upon excavation this proved to be a shallow spread of unstructured stone with no evidence of any kerbing, coursing or features sealed beneath. Projecting from the south-east edge was a rectangular area of angular to sub-angular pieces of sandstone (typ. 0.1–0.3m) 1.2m wide and extending 0.7m from the circle perimeter that covered a sub-rectangular scoop with shallow sloping sides merging with an irregular base (depth varying between 0.02–0.1m) [006]. What this latter feature represents is unclear; its shallowness and basal irregularity argue against it being a deliberately cut feature and it may be better thought of as an area that had suffered from trampling or some other form of erosion, the spread of stone serving to level and consolidate it. Dispersal of this cairn material resulted in a shallow, unstructured spread of sandstone fragments [003] that served to effectively link cairns 1 and 2 and against which a thin deposit of hillwash had formed.

As excavation of this diffuse spread progressed three distinct linear features became apparent (F31–F33) that together had given rise to the continuous north-east–south-west geophysical anomaly (Figs 8 and 9). F33 was the closest to the axial line of the cairns and marked by a series of large, regularly placed sandstone blocks (0.3–0.48m) running directly off of the south-west tip of the primary cairn 1 structure [310]. Offset 0.6–0.8m to the south-east and running parallel was F31, a concentrated band of smaller sandstone chunks that had been evident immediately following the removal of the turf. Whilst distinct, this 0.6–0.8m wide spread of stones (0.05–0.3m, typ. 0.18m) was shallow – effectively a single layer – with no evidence of any formal structure, coursing or sustained piling and dumping [302]. A further 0.6–0.8m to the south-east ran the last of the linear features, F32,

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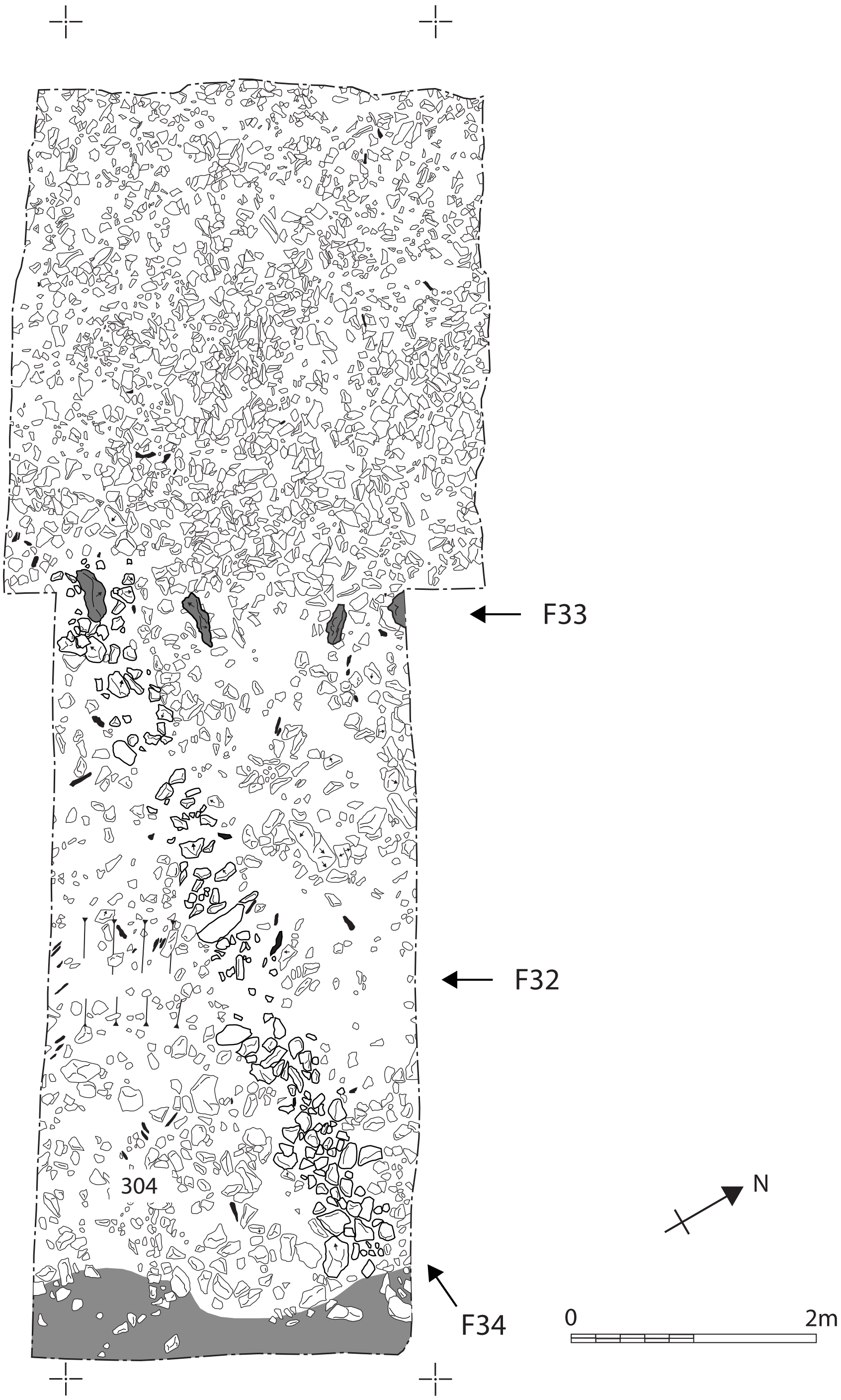

Fig. 10 Trench 1, Area B: relationship between F31–33 and the east–west linear (F34); shading at bottom of area indicates zone of permanent water-logging

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marked initially by a distinct band of dark grey peaty silt [303] sitting above a narrow scoop on the western side of area B [307] 0.58m wide and 0.12m at its deepest, filled with angular to sub-angular sandstone fragments (0.06–0.2m) [306]. To the east there was no evidence of a slot, the peaty soil sitting directly upon the general spread of stone that characterised this area. The edge of this feature had also been excavated where it passed below the cairns in areas A and C. In the case of cairn 1 the edge was steep, regular and straight (except where it encountered areas of outcropping rock) reaching a depth of 0.05m below the level of the natural before merging with a flat base (Fig. 4 – Section 50.1). Where it passed through an area of outcropping rock the basal profile was 'V' shaped and deeper (0.15m). The primary fill was a deposit of loose greyish brown clay-sand [005] containing common sub-rounded lumps of sandstone (typ. 0.1m) and there was no evidence of any recutting. Where it passed below cairn 2 the feature was more pronounced, deepest at the north-east edge (0.125m) and becoming shallower (0.09m) and wider to the south-west (Fig. 6). Only in the case of cairn 2 was there any hint of a stratigraphic relationship with the cairn, though this was ambiguous – a single large stone sitting on the top of fill that *could* conceivably represent tumble from the cairn. As to what this feature denoted, it was clearly too shallow, wide and irregular to correspond to a rut or repeatedly trodden path, whilst its piecemeal character in the area investigated likewise argued against an intentional drainage feature or gulley. Its absence from the easternmost portion of area B suggests an intentional break in its length at this point.

The rather ephemeral nature of F31–33 coupled with a lack of direct dating evidence and their horizontal displacement, made it difficult to ascertain whether these features represented subsequent phases of activity or linked components of a single episode of landscape marking. What is apparent is that in each case the feature was rather insubstantial, the sense of axial linearity and linkage between the cairns deriving

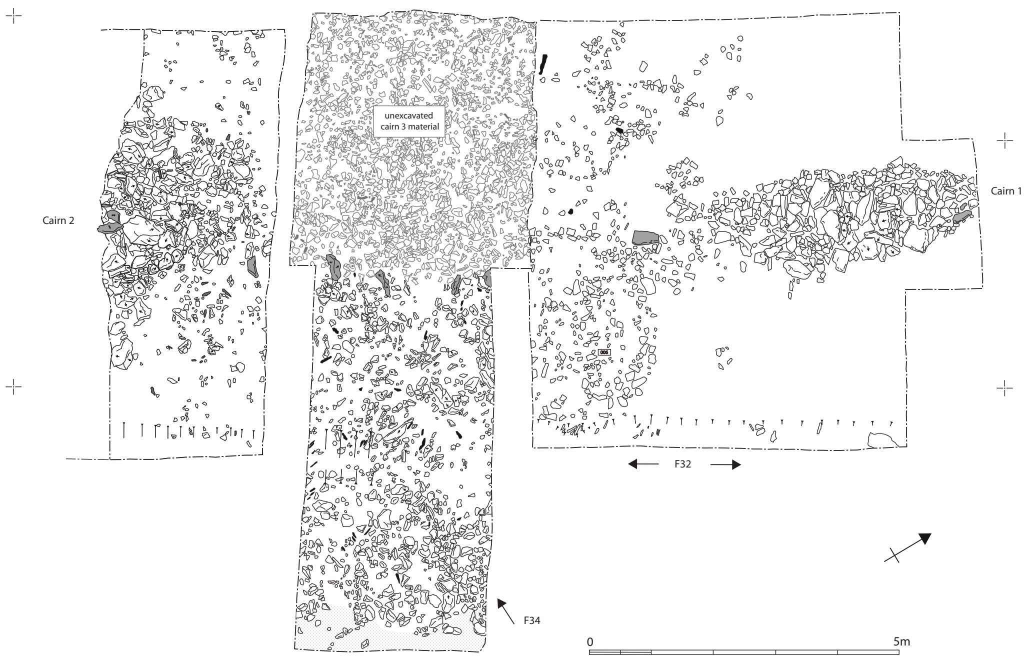

Fig. 11 Trench 1: suggested first phases of cairn construction and boundary marking; stones marking F33 are shown shaded; dispersed cairn material covering the upper portion of Area B corresponds to a later phase of activity (see Fig. 3); shading at bottom of Area B indicates area of permanent water-logging

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more from repetition than any clear structural setting, and that it was the group as a whole that gave rise to the soil resistance signature.

If the fact of repeated inscription, ie the three parallel linear features, made the north-east–south-west geophysical anomaly relatively straightforward to identify despite the ephemeral nature of the components, the same could not be said of the broadly east–west component that ran up the hillside in order to join it (Fig. 10). Rather than any clear alignment or concentration of stone, the south-east end of area B was defined by an amorphous spread of grey-brown silty clay containing abundant sub-angular fragments of sandstone (0.01-0.2m, typ. 0.1m) [304]; a marked contrast to the relatively stone-free areas encountered to the immediate northwest and southeast of cairns 1 and 2. As to the origin of this spread, it appeared to mark the dispersed remains of a former linear. All that survived was a concentrated 0.5m wide band (F34) of sub-angular sandstone fragments (0.05–0.28m) along with a number of more substantial blocks (0.3–0.4m). This aligned with one of the stones defining F33 and at its northern tip appeared to link with the easternmost edge of cairn 2. With regards to the relationship between F34 and F31–33, two of the latter clearly postdated F34, being created either upon (F31) or through it (F32) (Fig. 11).

Further investigation of F34 (Trench 2)

In order to more fully investigate F34 a single 5 x 5m trench was excavated some 30m to the south-east across a junction between F34 and a second intermittent high-resistance anomaly running north-east–south-west from the Lanacombe II setting to join it (Figs 2 and 12). Immediately beneath the turf and bound up in the root mat was a uniform spread of very loose, weathered fragments of sandstone that were photographed and removed. This revealed a number of small concentrations of large sub-angular sandstone blocks set within an apparently random scattering of sub-angular fragments (typ. 0.08m). The most coherent of these localised clusters (Feature 102) took the form of a ‘mini-cairn’ (0.6 x 0.45m) comprising a single course of large (0.2–0.36m) angular and sub-angular sandstone blocks. The only other feature evident in the trench was a small orthostat set perpendicular to the trending direction of the natural (Feature 100). The edge of a distinct cut could be seen around this small standing stone, remarkably similar in plan form to the stone-setting stone-holes previously excavated at Lanacombe and Furzehill Common (Gillings *et al.* 2010; Gillings and Taylor 2011; Gillings and Taylor, 2012). However, upon excavation it became clear that despite obvious similarities, not least of which a small standing stone, the feature was not a stone-hole.

The cut [107] was oval in plan (0.96 x 0.70m) and had been dug up against an area of outcropping natural. In profile a shallowly sloping lip stepped down 0.19m to form a V-shaped base. Into the hole a wooden post had been placed [106] against which the standing stone [101] had been inserted to serve as a ‘trigger’ (ie packing stone or friction plate). The surviving postpipe indicates a circular timber 0.1m in diameter, resting directly on the base of the hole. The posthole fills were free of artefactual material and whilst flecks of charcoal were recovered through flotation there was insufficient to furnish a radiocarbon determination. The stone was a thin (0.03m) rectangular slab of sandstone (0.19 x 0.27m) projecting 0.12m above the surface of the natural. With the post and stone in place the remainder of the hole had been filled with a compact dark grey-brown sandy clay [108] containing common small (< 0.02m) rounded fragments of sandstone. A number of larger (0.1–0.15m) tabular pieces of stone were also placed against the upright stone as part of this episode. The presence of the postpipe indicates that the post had been left to decay in situ, rather than deliberately withdrawn, the resultant weathering cone filling with a deposit of compact grey-brown sandy clay [100]. As noted, with the exception of the postpipe, the posthole was in many ways indistinguishable from previously excavated stone holes (Gillings *et al.* 2010, 309–10). In light of this it is worth reflecting upon how frequently the component stones of stone settings have been described as having attendant triggers (eg Riley 2007, 13) with the locations of lost standing stones postulated on the basis of surviving triggers alone (eg Chanter and Worth 1906, pl. vii). Further, it is worth considering how the small scale of many of the component stones that make up the settings has made it difficult in practice to distinguish between standing-stones proper and triggers (Quinnell and Dunn 1992, 3). The discovery in Trench 2 raises the distinct possibility that some of the stone settings recorded on Exmoor are in fact supports for wooden posts, and that the presence

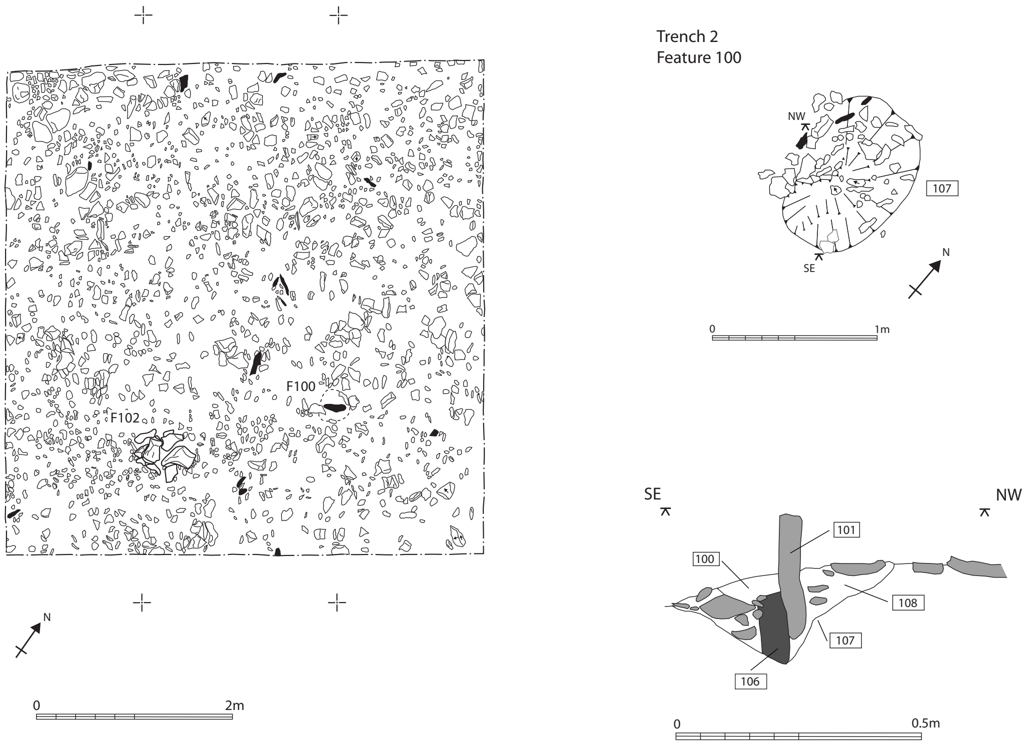

Fig. 12 Trench 2: base plan following initial clean and detail of F100 posthole

of triggers alone cannot be taken in an uncritical way to indicate the former presence of a standing stone as the selfsame technology was being employed to erect uprights of stone *and* wood. Although the sample is admittedly small, it does raise the tantalising possibility that the enigmatic stone settings may originally have comprised a blend of wooden posts and standing stones.

Exploring the circular feature at Lanacombe III (Trench 3)

Perhaps the most enigmatic of the anomalies detected during the geophysical survey was the circular high-resistance feature to the south-west of the Lanacombe III setting (Fig. 2). In 2009 a 4 x 7m trench was placed across the westernmost tip of the semi-circular feature. Considerable difficulty was encountered in hand-removing the turf from the trench using conventional methods as a result of the dense patches of rushes. In practice mattocks and picks had to be used to break up the vegetation cover which had a commensurate impact upon the integrity of the stone spreads directly beneath the turf. Following removal of this (now very disturbed) spread of very loose sub-angular fragments of sandstone (typ. 0.05-0.1m) little evidence could be seen to account for the geophysical anomaly, the expected arc marked by only a superficial spread of stone. In 2010 the trench was extended to the north and east in order to explore the interior of the feature and the bounding arc in order to better characterise this anomaly. Rather than attempting to remove the covering vegetation by hand, a 360 mini-digger with a toothless trenching bucket was employed to remove the surface layer of vegetation leaving the root mat intact; the latter removed by hand. The prudence of this became evident when the first trowel scrape lifted the root mat to reveal a piece of worked flint lying on an area of compacted surface. Indeed, the archaeology across Trench 3 was consistently shallow – lying immediately beneath the turf – and it was clear that the 2009 excavation had inadvertently lifted the bulk of

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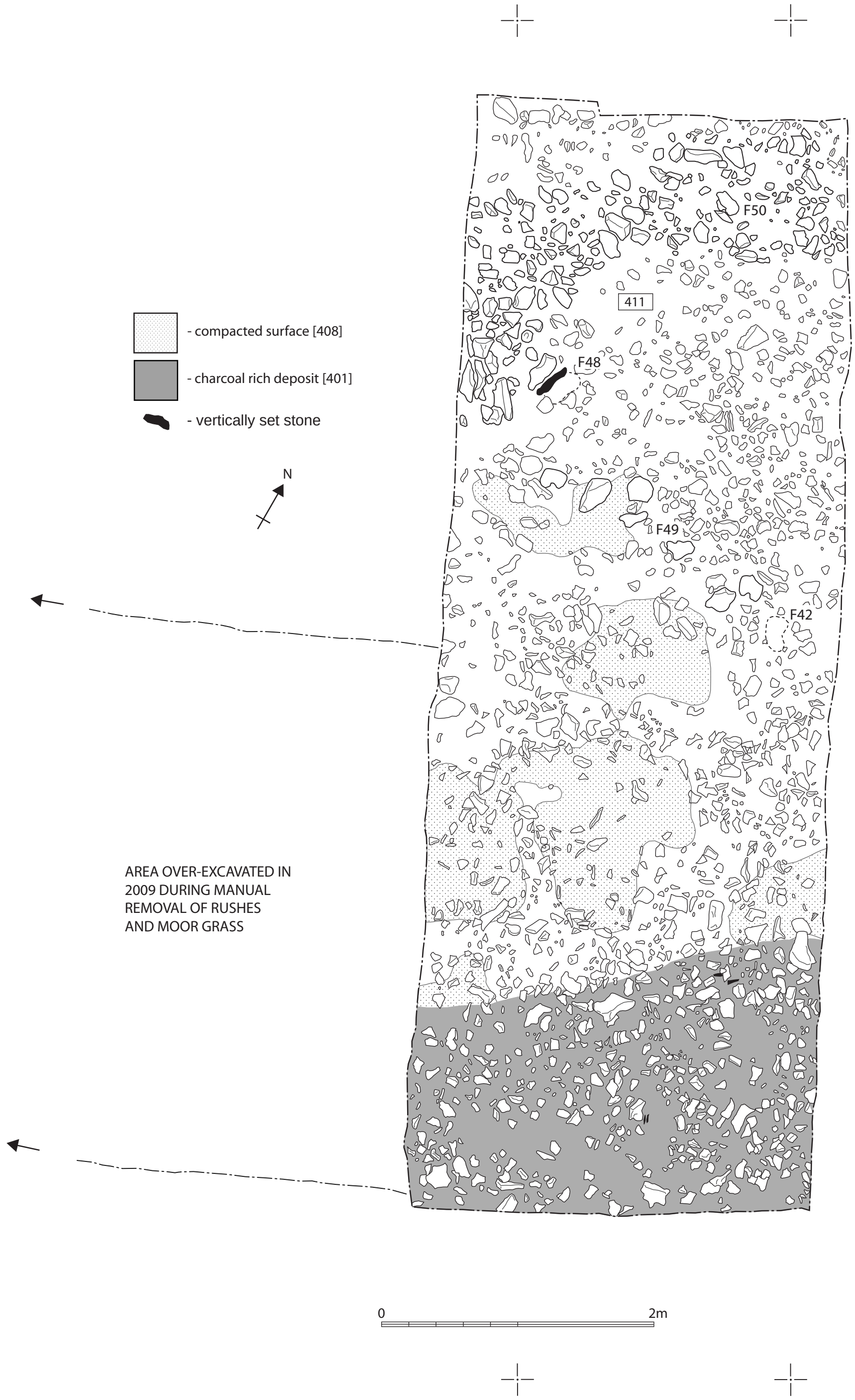

Fig. 13 Trench 3: the final phase of activity showing the bounding stone arc (F50), postholes (F42 and F48), line of possible postpads (F49) and spread of charcoal rich soil [401]

the stone arc with the turf (see below). This is an interesting example of hand-excavation being less sensitive and effective than the use of a machine and makes a powerful case for the preferential use of the latter in the excavation of these shallow upland sites.

At the north-western end of the trench a 0.4–0.5m wide arc of sub-angular fragments of sandstone (typ. 0.08-0.16m, max 0.33m) was visible corresponding to the geophysical anomaly (F50). This comprised a single layer of stones lying directly upon a deposit of firm orange-brown silty clay containing frequent small fragments of sandstone [411]. Perhaps the most economical interpretation is of stones cleared outwards from the interior, rather than deliberately brought to the location in order to create a structural perimeter. The outer edge of the arc was marked by a clear transition between the stones and a soft, organic peaty brown soil presumably marking the point at which the level of the underlying natural dips (Fig. 13).

Within the interior of F50 were two postholes cut into the orange-brown silty clay [411] (Figs 13 and 14). The northernmost (F48) comprised a flat-based, straight-sided oval (0.26 x 0.14m) dug to a depth of 0.2m. The posthole was bounded at the surface by large flat stones, including one with an edge-band of quartz that would have lain hard against the standing post. The fill was a firm dark-brown silty clay [404] containing common angular to sub-angular fragments of sandstone (0.01–0.05m) and two large packing stones. The first was a flat stone (0.22 x 0.12 x 0.02m) still in situ having been placed vertically against the north-western edge of the socket. This orthostat was visible at the surface, projecting 0.03m. The second packing stone was of comparable shape

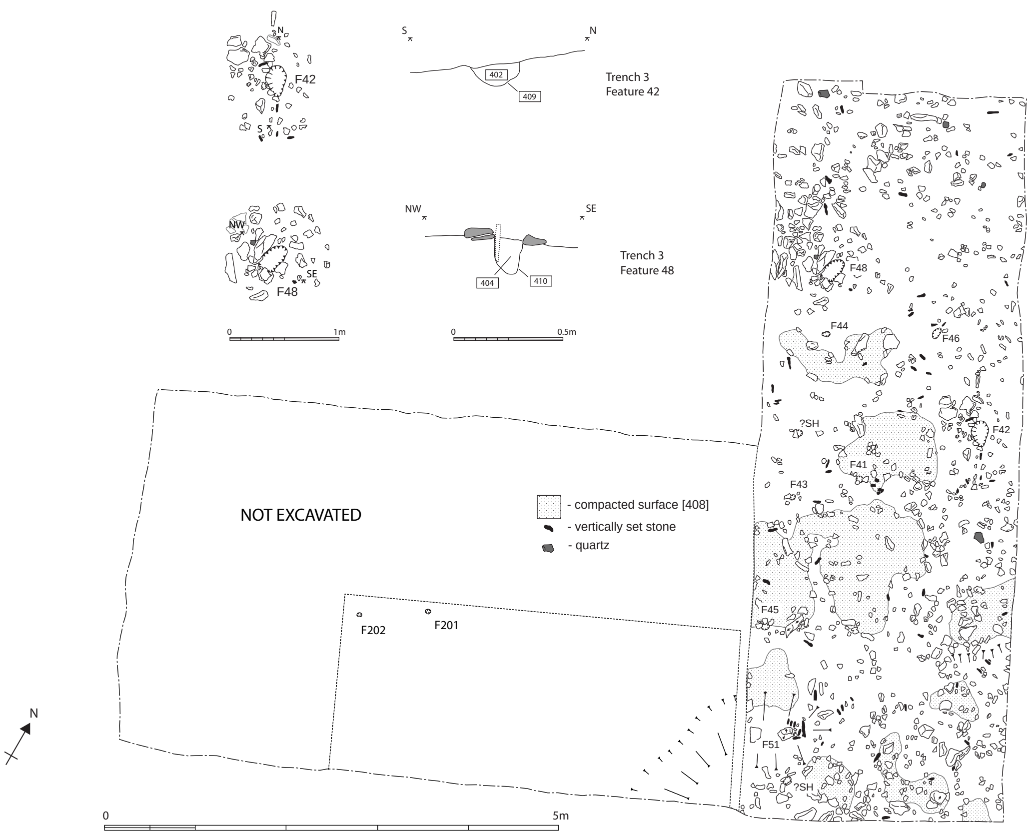

Fig. 14 Trench 3: following removal of F50, F49 and the [401] deposit, showing the stakeholes, excavated postholes and curious upright stone cluster (F51)

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and size (0.22 x 0.12 x 0.05m) and lay across the centre of the posthole. The position of this latter stone and lack of any evidence for a postpipe suggests that the post had been removed rather than left to decay in situ. Some 2.4m to the south-east was the second posthole (F42), 0.12m deep and keyhole-shaped in plan (0.26 x 0.18m), straight sides merging with a sloping base [409]. The posthole was filled with a moderately firm dark brown silty-clay [402] containing occasional angular to sub-angular fragments of sandstone (0.01–0.06m). Lying across the posthole was a flat, distinctively notched packing stone (0.12 x 0.8 x 0.03m). As with F48, there was no evidence of a postpipe and the position of the packing stone suggests that the original post had been removed. The fills of both postholes were free of artefactual material.

Running in an approximate arc from F42 to just south of F48, was F49 – a series of consistently sized and regularly placed pieces of flat sandstone (typ. 0.15–0.2m), lying directly upon the surface of [411], the silty clay through which the postholes had been cut. Although there was no direct stratigraphic relationship between the postholes and arc, the closest of the stones to the F42 posthole was notched in much the same manner as the packing stone recovered from its fill. If the presence of these distinctive notched stones can be taken to argue for contemporaneity, we might envisage a series of small postpads used to support less substantial uprights running off the F42 post. Interestingly, the westernmost of these stones was also notched and was found to be sitting partly across a stakehole (F44). This raises the possibility that these carefully notched stones were designed to be slotted against the bases of narrow wooden uprights. The excavated posts and line of putative postpads do not appear to mirror the semi-circle defined by the perimeter as might be expected if the latter marked (or had been deposited against) the outer edge of a circular structure. Instead they give the impression of radiating in spoke-like fashion from the notional centre. Nor does the straight line of stakeholes communicate much sense of circularity.

Lying directly beneath the root mat and surviving in intermittent patches across the interior of the feature were spreads of light grey silty-clay, flat at the surface and varying in depth from 0.02–0.04m [408] (Figs 13 and 14). This very distinctive and extremely hard, compacted surface was sitting directly upon the surface of [411]. In the south-west corner of the trench an awl/composite tool (SF3) was found lying directly upon this surface (Fig. 16), and an excavated sample of [408] revealed fragments of carbonised hazel (Appendices 1 and 3). Interestingly these patches did not extend to the north or east of the arc of postpads (F49) and where associated with stakeholes the deposit consistently ran up against the stakehole without sealing it, suggesting that the latter was upright when the compacted surface had been created.

An intermittent spread of darker, charcoal rich soil [401] was evident sealing both the underlying layer [411] and patches of [408] in the south-eastern third of the trench (Fig. 13). This proved to be a thin, intermittent layer of dark grey-brown silty clay (0.005–0.015m in thickness) with frequent flecks of charcoal; a possible cereal culm node (see Appendix 2) was recovered by flotation from this deposit. At its south-west edge a thicker depth of [401] had accumulated in a shallow undulation in the surface of the [411] (Fig. 14). During excavation of [401] a number of pieces of

TABLE 2 – DETAIL OF EXCAVATED STAKEHOLES

Feature	Plan shape	Depth	Base	Fill
F41	circular (diam. 0.06m) [412]	0.05m	dished	dark grey brown silty clay [412]
F43	circular (diam. 0.04m) [418]	0.05m	dished	dark grey brown silty clay [417]
F44	oval (0.1 x 0.06m) [416]	0.05m	flat	dark grey brown silty clay [415]
F45	circular (diam. 0.07m) with stones placed around northern edge	0.03m	dished	dark grey brown silty clay [419]
F46	oval (0.12 x 0.08m) [407]	0.06m	dished	dark grey brown silty clay [403]
F201	circular (diam. 0.05m)	0.05m	pointed	dark-grey silty clay [202]
F202	circular (diam. 0.05m)	0.02m	dished	dark-grey silty clay [204]

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TABLE 3 – CALIBRATED DATES FROM CIRCULAR STRUCTURE (USING OXCAL V4.1, THE INTCAL09 DATASET AND THE PROBABILISTIC METHOD)

Sample	Context	Sample number	Description *	Date BP	Calibrated (cal BC) 95.4% probability	δ13C	Range ** 95.4% probability
SUERC-27929	411	LAN3_09_1011	Buried soil Bulk sample	3605 + 30	**2034-1887** 2034-1887 (95.4%)	-25.9‰	**2034 - 1887**
SUERC-34255	411	LAN_10_13	Surface of buried soil Single sample	3135 + 30	**1495-1317** 1494-1372 (87.5%) 1344-1317 (7.9%)	-25.4‰	**1491 - 1321**
SUERC-34254	408	LAN_10_6	Compacted surface Bulk sample	3425 + 30	**1875-1634** 1875-1842 (8.7%) 1818-1798 (3.2%) 1780-1634 (83.5%)	-27.6‰	**1873 - 1639**
SUERC-34253	401	LAN_10_4	Burning layer Bulk sample	3280 + 30	**1631-1464** 1631-1493 (94.3%) 1473-1464 (1.1%)	-27.6‰	**1628 - 1495**
SUERC-27928	401	LAN3_09_1004	Burning layer Bulk sample	3230 + 30	**1606-1431** 1606-1573 (7.3%) 1558-1550 (1.3%) 1538-1431 (86.8%)	-25.8‰	**1604 - 1433**

* Species are indicated only where identification was possible
** Quoted range was generated using the intercept and single floruit options in OxCal 4.1

worked flint were recovered from the surfaces of the underlying [408] and [411] deposits (Appendix 1). This included a concentration of finds focused upon a curious cluster of small (typ. 0.15m) upright pieces of flat sandstone [414] at the base of the undulation (F51); a flint blade (SF7) had been placed vertically amidst these closely spaced stones (Fig. 14). This cluster of upright stones had been pushed directly into [411], the bases of the stones reaching the level of the bright orange subsoil [421] some 0.06m beneath.

Along with the features described above, a series of stakeholes (five definite and two possible) were recognised and excavated in Trench 3 (Table 2) cut into the [411] (Fig. 14). None was particularly deep (typ. 0.05m) and all had straight sides and dished (or flat) bases. The fills of two of the stakeholes produced tiny undiagnostic fragments of animal bone (F41 and F44) that raises the possibility that some at least may correspond to later animal activity. In terms of placement and configuration, of the confirmed examples F43–5 formed a line running south-east from F48, whilst the largest of the stakeholes (F46) lay mid-way between the two postholes, offset slightly to the north-east. The overall placement and way in which the stakeholes were respected by [408] suggests contemporaneity with the other structural features excavated. A further two stakeholes were recorded to the south-west of the circle. F201 was circular in plan (diameter 0.05m) tapering to a point 0.05m below the surface of the subsoil. F202 was once again circular in plan (diameter 0.05m) but shallower, its dished base only penetrating 0.02m below the surface. In each case the fill was a firm, dark-grey silty clay with no inclusions. The slight character of the stakeholes and dished (rather than deep and pointed) bases would suggest a partition or wind-break rather than wall or fence.

The close structural relationship between the compacted surface and associated post and stakeholes would imply that they were part of a unitary undertaking and the lack of any evidence for postpipes, recutting or structural phasing points towards a relatively short-lived period of activity at the site. Taken as a group, the assemblage of flint tools could do little more than suggest a broad 2nd millennium BC date for the structure, albeit with evidence of earlier, possibly Neolithic, activity taking place in the vicinity.

A total of five samples were submitted for AMS dating, all subject to the same caveats and conditions that pertain to the cairn samples discussed above – ie at best they could provide

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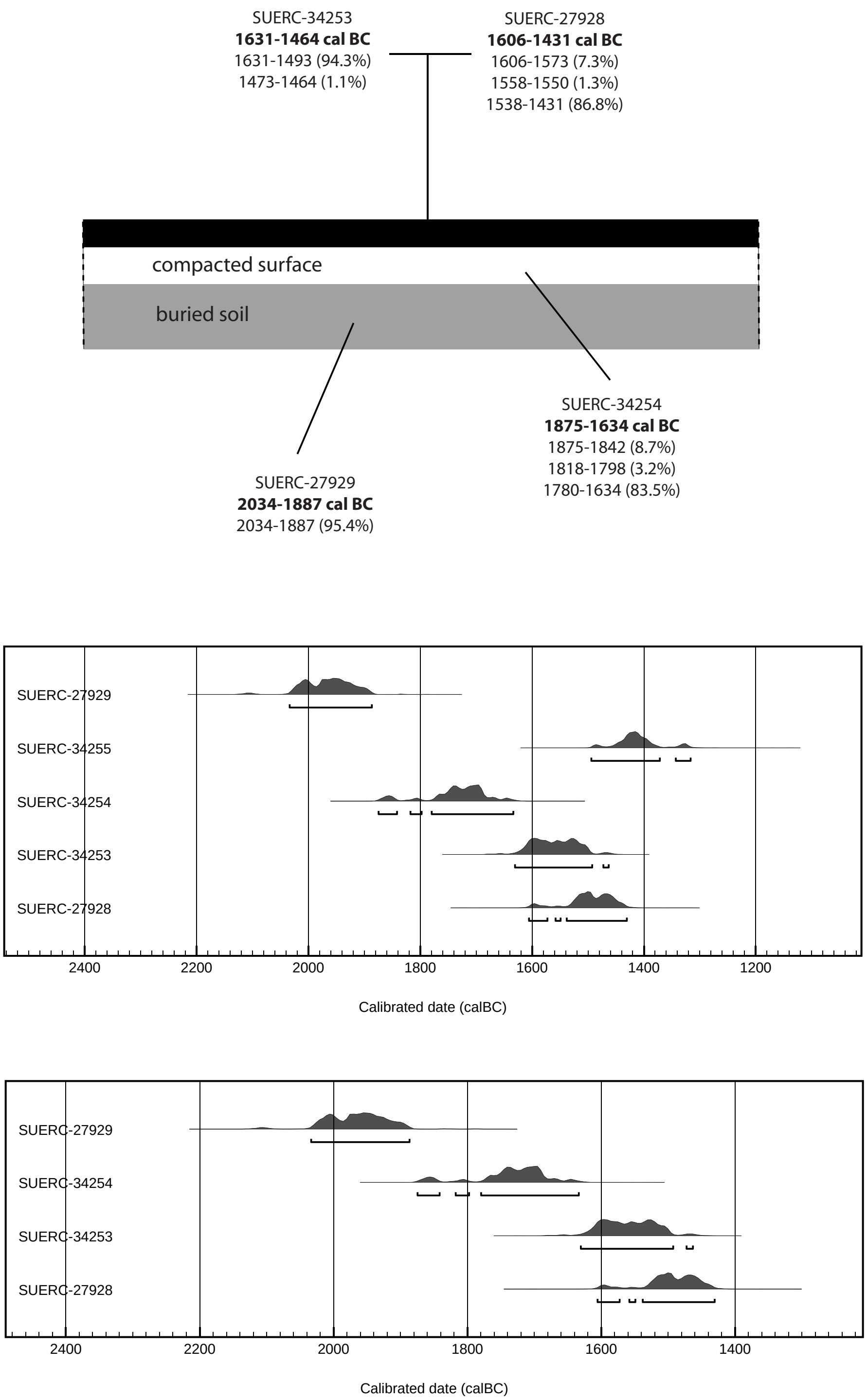

Fig. 15 Radiocarbon dating of the Lanacombe III structure

termini post quos for the activity recorded (Fig. 15; Table 3). Four were based upon bulk samples of charcoal recovered from the flotation of soil samples. One of these was from the compacted floor surface (SUERC-34254 – Hazel) with two further samples taken from the spread of charcoal rich soil that sealed it in the southern portion of the excavated area (SUERC-34253 –species unknown and SUERC-27928 – Oak). The fourth of the bulk samples derived from the [411] layer (SUERC-27929) upon which the compacted floor surface had been created and through which post and stakeholes had been dug. The remaining sample (SUERC-34255 – Alder) comprised a single piece of charcoal recovered by hand directly from the surface of [411] at the base of the undulation. Although unique amongst the samples, relating as it did to a single entity and relatively short-lived species, its position on the surface (rather than embedded within [411]) meant that its stratigraphic integrity could not be assured (and the possibility that the charcoal may have been intrusive was certainly raised at the time of excavation). In stratigraphic terms, the earliest point in the sequence should be represented by SUERC-27929 (Phase 1 – pre-structure), followed by SUERC-34255 and SUERC-34254 (Phase 2 – use) and finally SUERC-34253 and SUERC-27928 (Phase 3 – abandonment). As can be seen from Table 3, with the exception of the potentially intrusive SUERC-34255 the calibrated dates conform closely with the recorded stratigraphy. It would be tempting to read this sequence of dates as indicating construction and use of the structure in the early Bronze Age (18th–17th centuries BC) – straddling Pollard and Healy's Periods 3 and 4 (Webster 2008, 77) – in an area that had already witnessed activity at the very start of the Bronze Age (Pollard and Healy's Period 2). The end of activity at the site was marked by a spread of burnt material in the southern portion of the clearing sealing the surviving patches of compacted surface in this area (late 17th to early 15th centuries cal BC - Period 4). Taken together the results argue for an early Bronze Age date for the Lanacombe III structure, however care must be taken to respect the inherent limitations of the dated sample and all that can be claimed with any confidence is a TPQ of 1604–1433 BC.

DISCUSSION

Whilst there are a number of cairns recorded on Lanacombe, including smaller cairns closely associated with stone settings (eg at Lanacombe I, II and III) and larger examples (eg HER MSO7115 on the broad crest of Lanacombe – 13.7m diameter and surviving to a height of 1.1m), none have been excavated. To compound this, although a list of site-by-site descriptions of cairns recorded in the NMR was initiated by the former RCHME, Exmoor has not witnessed any sustained attempt to survey, record and classify cairns comparable to that carried out on Bodmin (Johnson and Rose 1994, 34–45). In highlighting this disparity, it is worth noting that even if such a study were to be carried out, the kinds of fine-grained description we can make in granite-dominated landscapes are not possible on Exmoor, where all that can be noted reliably are basic shape, size and association parameters (Wilson-North, pers. comm.). Taken together with the fact that few of the very small cairns on Exmoor have witnessed any systematic investigation, the resultant lack of basic knowledge makes it difficult at present to establish the degree to which the three cairns excavated are typical for Exmoor.

In their primary phase the morphology of cairns 1 and 2 is intriguing (Fig. 11). Although, following the English Heritage monument class description, they would technically be classified as 'ovoid' this does not do justice to the sharpness of the tapering ends and as a result 'boat-shaped' is preferred here for purely descriptive (rather than rigid classificatory) purposes.[2] Clear parallels have yet to be located, though the tapered linear clearance heap (4m x 2m) encountered at Shallowmead (Site B) is certainly suggestive.[3] Despite their shared axial alignment and initial morphological similarities the subsequent histories of the two cairns were markedly different. At cairn 1 a loose, haphazard spread of stone was placed adjacent to, and partly over, the cairn, respecting its original elongated shape. This appears to have derived from the dispersal of a third cairn (cairn 3) of very different form from those described above. Lacking any structural elements (eg cist, kerbing, coursing) this comprised a circular band of small stone fragments around a central core. Dispersal of this cairn gave rise to the amorphous spread of stone that was evident linking cairns 1 and 2. A mere 10m to the south-west a more concentrated dump of stone was used to enlarge cairn 2,

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transforming it from an elliptical to broadly circular structure bounded by a boulder kerbing (Fig. 3). It is difficult to assess the degree to which the suggested *terminus post quem* for cairn 2 relates to the group as a whole. The horizontal displacement of the structures precluded any direct stratigraphic relationships – although material from the dispersal of cairn 3 clearly sealed the cairn 1 structure this only relates to the levelling of cairn 3 rather than its construction. Whilst the relatively high level of charcoal in the buried soil beneath cairn 2 implies processes of pre-cairn clearance and preparation absent from cairn 1, there are sufficient morphological similarities in the earliest phases of both to suggest some degree of contemporaneity. Taken as a whole, the evidence suggests two distinct phases of cairning. The first (involving the construction of cairns 1 and 2) was deliberately and intentionally structural; the second (cairn 3) more redolent of a subsequent phase of clearance and accumulation.

As well as the cairns four linear features were excavated, three running parallel to the axial line and one upslope to join it. Although it should be stressed that there is no direct dating evidence for any of the linears, the close relationship between F33, F34 and the primary phase of cairn constructions argues strongly for a prehistoric date for at least these elements. Together the pattern described by the linear anomalies revealed by the geophysical survey suggests a fragment of co-axial field-system, defined by carefully constructed cairns, stone alignments, a shallow gulley, discontinuous piles of stone and wooden posts. We are clearly not dealing with field walls or the remains of revetted banks here. In saying this, the features respected *something* and the suggestion is of material that has been cleared to a pre-existing boundary feature, perhaps defined by a hedge, fence or merely a line of sight between two or more posts. Assuming the cairn line marks the dominant axis, the alignment is north-east–south-west following the contour. Excluding Lanacombe, only ten co-axial field systems have been recorded on Exmoor (Riley and Wilson-North 2001, 40–54, fig. 2.32; Riley 2009, 27) and the paucity of excavated examples makes it difficult to identify immediate parallels – indeed, with the exception of palaeoenvironmental sampling at Codsend the present fieldwork comprises the only geophysical survey and excavation to have been carried out on a coaxial prehistoric field system in the National Park (Riley 2009, 26). The closest fragment of coaxial field system so far identified is at East Pinford (HER MSO6830) some 1.5km to the east, though the Lanacombe features bear little resemblance to the 3.0m wide stone banks that delineate the axes of the former. Indeed, it may well be that on Exmoor more substantial linear features such as those at East Pinford were the exception rather than the rule, with the more fragmentary and ephemeral Lanacombe type originally more ubiquitous. The presence of cairn-defined boundaries at Lanacombe certainly echoes the Bronze Age field systems recorded at Codsend Moor site 4 (Pattison and Sainsbury 1989, 87) and the 30m interval between the boundaries accords well with that recorded at Codsend site 3 (ibid., 85). The two areas also share a general north-east–south-west alignment and are on areas of sloping ground with a southerly aspect. There are also dissimilarities; there is no evidence for the stone banks and lynchets evident at Codsend, nor does the main axis of the system lie diagonally across the contour. A closer parallel may lie some 1.25km further along the edge of Lanacombe to the south-west, where fragments of a possible prehistoric field system were recorded in 1994 (HER MSO7102) that were similarly defined by a combination of cairns and interrupted linear features (described in this case as either linear clearance or interrupted stony banks). These features showed indications of extending under the peat to the north and north-east and, taken together with the evidence from the current project, may suggest that field systems may once have been extensive along the southern crest-slope of Lanacombe. What is interesting here is the close association between cairns and linear systems with the suggestion that on Exmoor cairns could serve either as free-standing structures or integral components of more extensive linear boundary systems, but not as discrete clearance-related clusters or cairnfields.

As for the date of the features, on stratigraphic grounds the earliest appear to be F33 and F34 though the precise chronological relationship between the two is unclear (Figs 10 and 11). The latest of the linear features was F31, which was not only very close to the surface (appearing immediately below the turf) but clearly postdates the dispersal of F34. F32 is curious; in the area of the cairns and to the south-west of F34 it comprises a very clearly defined gulley. However, at the point where it should intersect with F34 (and for 2m or so to the immediate north-east) it was

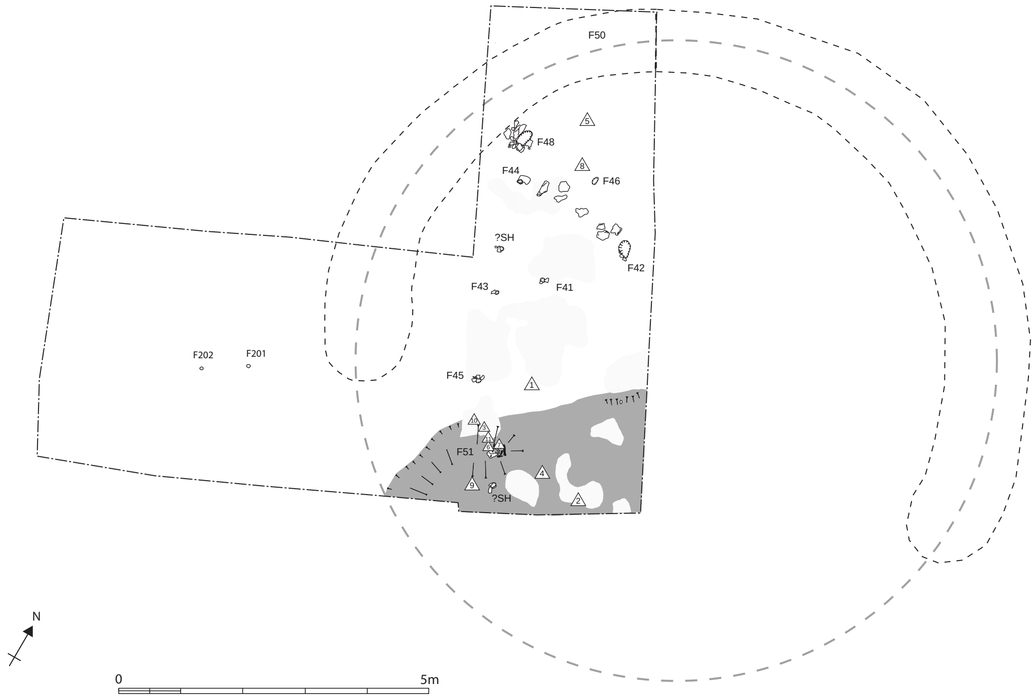

Fig. 16 Projected arc of excavated features showing the location of small finds (see Appendix 1) in relation to key features and deposits

absent and this may well reflect the presence of an original break (or entrance) through the boundary at this point running between cairns 1 and 2 or, more prosaically, the difficulty of digging a gulley through the dense spread of stone in this area. There is every possibility that F31 and F32 are relatively modern constructions, perhaps related to 19th-century attempts to improve Exmoor Forest following its inclosure in 1819 (Orwin and Sellick 1970). What is interesting is that in the area of Lanacombe II at least they closely followed (and effectively restated) what appears to be a much earlier alignment[4].

Close to the Lanacombe III setting we have a circular area of likely early Bronze Age date cleared of loose stone, on which a post and stake-defined structure was erected and a very hard, compacted surface formed (Fig. 16). It is unclear whether the latter was the result of the deliberate dumping and ramming of material (as implied by the distinctive grey colour and evenness of the surface) or haphazard trampling (as its intermittent survival might suggest). At the southern end of the area investigated, in and around a shallow hollow was a concentration of flint tools, one of which had been deliberately placed on end in amongst a tight cluster of upright stones. There is no evidence for recutting or remodelling and the overall sense is of a relatively short-lived structure. There was clearly burning taking place within the immediate vicinity as evidenced by the skim of charcoal rich soil covering the lower third of the trench and sealing the surface and flint material beneath it. There was, however, no evidence for the source of this burning – it had not washed down into the trench as it is completely absent from the upper two-thirds and though a central hearth might be suspected (just to the east of the excavated area) magnetometry carried out in 2007 failed to detect any anomalies in this area (Gillings *et al.* 2010). It is difficult to envisage this as a hut circle akin to those already recorded on Exmoor (for a typical example see Riley 2009, 15–18). It certainly lacks the 3.0m wide stony bank and terracing that marks the hut circle associated with the coaxial field system at nearby East Pinford (HER MSO6828). Instead it may be better to view it as an example of what Ainsworth has termed a

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'circumstantial' settlement site. In such cases there are no surviving surface traces of the structure, its presence being indicated instead by factors such as sympathetic changes in the alignment of other features and arcs of stone that may have been stacked, or spread, against its perimeter (Ainsworth 2001, 25–7, fig. 2). Another possibility is that the ephemeral spread of stone marks the location of a ring-cairn. It could be argued that the term 'ring-cairn' is of little use as a descriptor, referring as it does to a wide and diverse range of broadly circular stone structures – see for example recent classificatory work in Cumbria (Evans 2008). Further, in the absence of excavation, ring-cairns can be extremely difficult to distinguish from hut circles (for an Exmoor example of this difficulty see Ruckham Combe (HER MSO6839 and MSO10883)). Putting such caveats aside, it is difficult to find any immediate parallels for the feature with the only putative ring-cairn so far recorded on Lanacombe (HER MSO7107) defined by a notable spread of surface stone. Even those described as being of 'slight construction' such as the excavated cairn at Rixdale, South Devon (Quinnell 1997, 32) are positively monumental in comparison with Lanacombe.[5] The single excavated example of a ring-cairn structure on Exmoor, Shallowmead, some 8km to the south-west does, however, provide some interesting parallels. Although at first glance the two features could not be less alike – Shallowmead comprising a substantial stone built structure with deliberate kerbing, revetment and platforming – there are some tantalising similarities. For example, there was also a break in the Shallowmead circle to the south – in this case a 2.5m wide gap where the otherwise kerbed structure of substantial stones had 'petered out' (Quinnell 1997, 21). This area was partly covered by a spread of flat stones and tentatively interpreted as an entrance. Just within this putative entrance gap was a roughly circular area of a buried soil rich in charcoal and associated with a group of stakeholes (Quinnell 1997, 20–2).

CONCLUSIONS

The results of the fieldwork have enormous implications for our interpretation of Lanacombe, and by extension upland Exmoor, revealing the existence of a rich prehistoric landscape of which the stone settings were merely one part. Comprising a complex of linear features, cairns and post-built structures this is a landscape that has left virtually no surface trace and as a result has been overlooked by conventional field survey. Where surface traces do exist, such as cairns 1 and 2, they are shallow, diffuse and comprehensively masked by the moor grass, and the value of extensive soil resistance survey (carried out with an intensive sampling interval) in detecting such remains should not be underestimated. Likewise the research has demonstrated the presence of features, such as cairn 3, that can only be identified through excavation.

Questions must now be raised regarding the status and significance of the apparently small and haphazard cairns recorded across the surface of Lanacombe (not to mention Exmoor more generally) and found in frequent association with stone settings. Two remarkably unimpressive examples were excavated with every expectation of finding shallow, haphazard accumulations of cleared stone. Instead carefully constructed cairns were revealed that were an embedded component of a network of linear boundaries. Likewise the ephemeral circular structure at Lanacombe III raises important questions regarding the known distribution of settlement structures and our understanding of the extent and character of early–middle Bronze Age activity on Exmoor, lacking as it does any of the traditional surface indicators of hut circles and enclosures. That the Lanacombe III structure may be far from unique has already been suggested by the results of geophysical surveys at Lanacombe IV and Furzehill Common I (Gillings and Taylor 2011; 2012).

As to what the fragments of linear feature discovered at Lanacombe represent, if we accept an early–middle Bronze Age date for at least some elements of the pattern (F33 and F34), could we be seeing a field system that essentially failed to develop into the more dramatic stone-built boundaries seen elsewhere on Exmoor (eg East Pinford and Codsend) and more famously on Dartmoor in the form of the extensive reave systems? Fleming's seminal work on Dartmoor not only raised the possibility of pre-reave phases of boundary construction but stressed that surface traces told only part of the picture, supplemented by a rich buried archaeology of stake, post and gulley-defined features (1988, 74–6, 93) only detectable through excavation. There is then the temptation to see at Lanacombe a 'failed' or 'embryonic' Dartmoor, but this is to view Exmoor solely through the lens of its better investigated neighbour. As has already been noted, this tendency to treat the former as a de-facto 'gold standard' for south-west upland archaeology against which discoveries must always be judged can be limiting. Unlike Dartmoor, Exmoor does not sit on granite and as a result is not rich in surface stone. Likewise, its medieval and post-medieval history of landscape interventions and impacts is also very different (eg Orwin and Sellick 1970). Perhaps most telling, despite Fleming's suggestions of earlier phases of enclosure on Dartmoor, recent excavations, such as those investigating elements of the coaxial field system at Shovel Down, found no evidence for any earlier episode of boundary-marking beneath the stone banks (Johnston *et al*. 2003) let alone anything approximating the motley of subtle features seen at Lanacombe. Until the full extent of the Lanacombe system is mapped and its uniqueness established through similar investigations into other areas of upland Exmoor, detailed comparisons with Dartmoor and Bodmin are premature. A better conclusion to draw from the current results is that Exmoor was not in any way marginal or impoverished during prehistory (*sensu* Tilley 2010, 346) it was simply *different* and a clear priority for future fieldwork is to establish *how* different and in what specific ways. For example, rather than deliberately constructed boundaries, the linear features described above might be better thought of as 'peripheries' or 'edges' – linear zones along which material accumulated. In this sense they comprise the residues of land-use practices carried out in a series of discrete areas rather than an explicitly constructed framework for the structuring of such activity.[6] If Exmoor's field systems are marked by edges in this way then we would not expect to find evidence of major boundary structures of the type that dominate the landscape of Dartmoor. Attention must also focus on the enigmatic stone settings that initially prompted the research, where a key goal must now be to elucidate the relationship between the small standing stones and these emerging field systems. Did the clusters of small standing stones pre or postdate these features or were the settings an integrated component? Indeed, need all of the component miniliths that make up the settings be free-standing stones or could some have been triggers for wooden posts? Looking beyond Lanacombe, what of Exmoor's remaining 55 or so stone settings?

Rather than offering any conclusive answers the results reported here mark instead the first stage in what is hoped will be renewed (and sustained) exploration of Exmoor's surviving prehistoric landscapes; an investigation that will seek to not only grasp the subtleties and nuances of its surviving archaeology, but in time use these results to challenge, enrich and finesse current understandings of the south-west uplands during the 2nd millennium BC based upon the better studied granitic moorlands to the south and west.

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ENDNOTES

1 The original trench numbers used for the 2009 and 2010 excavations (and interim reports) were rationalised as part of the process of integrating the two sets of results. In short Trench 1 = (T50E, T50W, T60); Trench 2 = (T52); Trench 3 = (T53, T61).

2 The term 'boat-shaped' has previously been used by Webley to describe the very different pointed-prow, flat-stern shaped cairns excavated at Twyn Bryn Glas (Webley 1962).

3 The published photographs show an arc defined by a substantial spread of large stones (Griffith 1984).

4 Processing and analysis of a LiDAR elevation model of Lanacombe carried out in May 2012 revealed the existence of what appeared to be a drainage gulley that continued the alignment

of the geophysical anomaly excavated as F32 to the east and west of the surveyed area. Following an unexpected vegetation burn across the eastern end of Lanacombe in April 2012 a site visit on the 24 May confirmed the existence of a shallow hollow draining into a group of straight channels that had been cut to the east of a large post-medieval enclosure near the coombe bottom (Riley and Wilson-North 2001, fig. 5.24). It was clear from both the LiDAR and field-visit that this feature corresponds to F32. For much of its length it is visible as a very shallow linear depression in places marked out only by clumps of reed. Its course curves gently from north-east to south-west for *c*. 400m, running downslope across the contour except in the area of the Lanacombe II cairns and setting where it effectively disappears as an earthwork feature. Here we know it becomes both intermittent in form and temporarily straightens to directly follow the contour (ie the axial line of the cairns). As for the dating of this feature, it is clearly not prehistoric and the most economical interpretation would link it to the episodes of 19th-century improvement of the former Royal Forest initiated by the Knight family (Riley and Wilson-North 2001, 138–9; Orwin and Sellick 1970).

5 It is worth noting that in the original Shallowmead report the captions for plates 4 and 5 appear to have been transposed (as is clear from the written description and fig. 11 plan (Quinnell 1997).

6 I am indebted to Dr Jeremy Taylor for this crucial observation.

APPENDIX 1

Worked Flint *by Joshua Pollard*

A total of 16 pieces of worked flint were recovered during the 2009 and 2010 excavations, the assemblage comprising nine retouched and/or utilised pieces and seven small debitage flakes and chips (defined as pieces under 10mm maximum dimension). One piece, from the surface of [411] was burnt. The flint on which these pieces have been made ranges in colour from black, to dark brown, grey-brown and grey. The absence of cortex on any of the pieces makes it difficult to determine the origin of the material used, though both primary (chalk) and secondary (river or coastal gravel) sources are possible. None of the pieces exceeds 45mm in length, and many are under 30mm (Table 4; Fig.17).

A knife from [411 – surface] looks to have been worked on a blank struck by a bi-polar or anvil technique; a style of working often more characteristic of 2nd-millennium BC assemblages in flint-poor regions of western Britain. All the other pieces are worked through conventional direct percussion reduction techniques. Notable features of the assemblage include the low proportion of debitage (seven out of 16 pieces), and the high incidence of utilisation of broken flake and blade segments for tools, accounting for seven of the nine utilised and retouched pieces. In at least two instances the flake blank has been intentionally broken prior to retouch. This may reflect a strategy of parsimonious utilisation of blanks, intentional fragmentation allowing the creation of two or more implements per flake or blade. Telling also of a desire to maximise available material is the utilisation of very small flakes as unmodified cutting tools. The presence of microdebitage indicates knapping on site, though it is not clear whether this included core reduction as well as tool maintenance. None of the pieces refit.

Among the retouched pieces are two knives from [411 – surface], examples of awls/points from [411] and [411 – surface], and a worn microdenticulate from [414]. The latter is likely to be Neolithic in date, as is the awl/point on a blade segment from [411 – surface]. All of these implements are suited to light tasks, mostly cutting. The absence of scrapers is notable, though a rejuvenation chip from [411 – surface] could derive from the resharpening of a scraper edge.

Overall, the impression is that flint was brought on site as prepared pieces (tools or tool blanks), or as prepared cores that were subsequently taken away. Many elements of the reduction sequence are absent. Whether reflecting a single or, more likely, multiple occupation or task-specific events, there is a sense of a quite fleeting and mobile presence.

Catalogue

Context [002]

SF101. Broken tertiary flake with marginal retouch on LHS and use-related damage on this and the RHS. Spots of edge-gloss. Probably

TABLE 4 – THE WORKED FLINT

	Flake/blade	Chip (<10mm)	Utilised	Retouched	*Total*
[002]			1		1
[408]				1	1
[411]	3	4		5	12
[414]			1	1	2
Total	*3*	*4*	*2*	*7*	*16*

used to cut both soft and moderately resilient materials.

Context [411]

SF103. Awl/composite tool on a broken tertiary flake. The bulb has been isolated through areas of concave marginal retouch to form a spur. There is marginal retouch and use-related edge damage on both sides at the distal end; spots of high gloss visible on the edges.
SF104. Small tertiary flake.
SF107. Tiny broken tertiary flake with very fine marginal retouch around the distal end.
SF108. Tertiary chip.

Context [408]

SF3. Broken distal end of a tertiary flake with very fine marginal retouch and/or use-related damage isolating one end.

Surface of Context [411]

SF1. Distal end of tertiary flake.
SF2. Chip, possibly from scraper rejuvenation (fine, stepped-fractured flaking on proximal end).
SF4. Highly calcined flake fragment.
SF5. A knife on a narrow flake with fine, parallel, blade scars on the dorsal face. Fine marginal retouch runs along the LHS and distal end, and traces of use-related wear occur here and on the RHS. Flake scar ridges on the dorsal face show slight polish, possibly a product of being held or hafted in a soft but resilient material such as leather or wood.
SF8. Tertiary chip.
SF9. Knife on the proximal end of a large flake, apparently worked through a bi-polar/anvil technique. A bulb on the break surface shows the flake has been intentionally broken. Fine marginal retouch along the RHS, and limited areas of retouch along the distal end of the LHS.
SF10. An awl or point on the distal end of large blade. A bulb on the break surface shows the blade has been intentionally broken. Regular, marginal retouch, abrupt in places, along both sides isolates a point. Use-related edge damage is also present along the sides. While resembling an early Mesolithic obliquely blunted point, this piece is likely to be Neolithic in date.
SF11. Tertiary chip.

Context [414]

SF6. Medial blade segment. Edge damage, probably use-related, along both sides.
SF7. Fine blade with diffuse bulb of percussion (soft-hammer struck). Irregular, marginal, edge damage along LHS. Very regular, shallow, tending to semi-invasive retouch along the RHS. The latter may be a much worn microdenticulated edge.

Worked stone *by Mark Gillings*

A single piece of worked stone (SF102) was recovered from the top of the F1 cairn just to the north-east of the core of the feature. This is a heavy, gently tapering (0.28m x 0.085) chunk of stone, triangular in section, showing evidence of having been deliberately flaked along one edge. The tapered end also appears to have been broken off in antiquity. The function of this object presently remains unclear; it is weighty and fits comfortably in the hand, however there were no signs of pecking or wear on the surface (though it should be noted that a portion of the flaked edge had suffered post-depositional damage).

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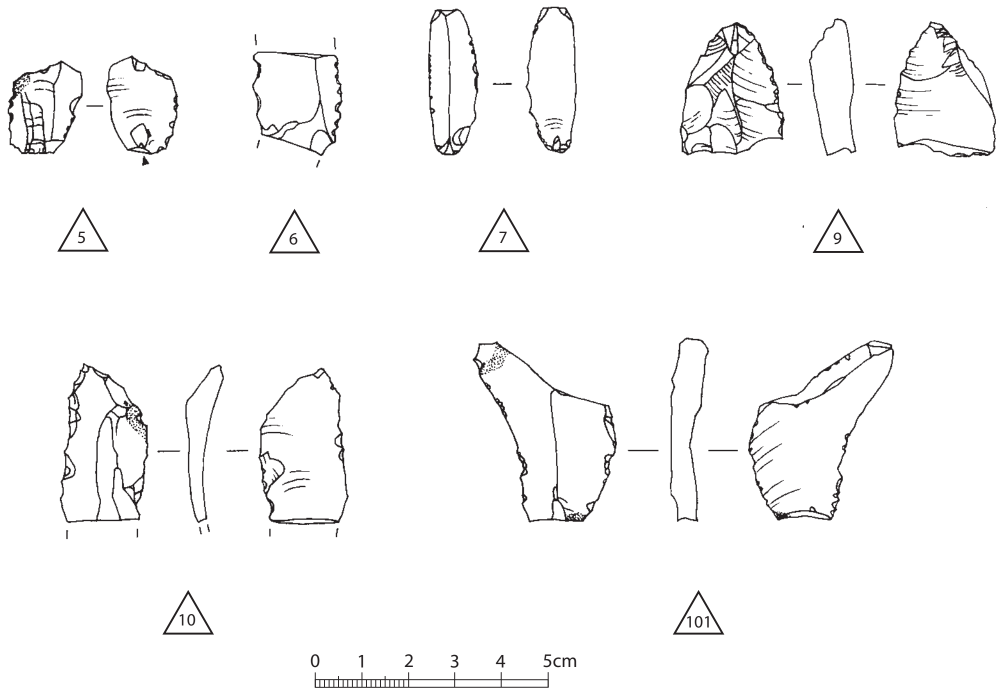

Fig. 17 Worked flint (drawings by Artdept – artdept@btinternet.com)

APPENDIX 2

Plant remains *by Alistair Hill*

Introduction

A total of 32 soil samples from various contexts were taken to facilitate the recovery of archaeobotanical evidence. The collection and analysis of plant remains from archaeological sites can present archaeologists with a range of cultivated and wild plants that can be used to interpret the social and economic systems of past societies. As carbonized remains are exposed to heat this will usually imply human activity – ‘almost all plant species attested for in archaeological sites have economic implications, either of direct or of indirect nature’ (van Zeist 1991, 109).

Methods

Using a judgemental sampling strategy, the archaeobotanical samples were taken from contexts identified as having the potential for the preservation of plant remains. The samples were processed at University of Leicester Archaeological Services using bulk flotation methods (York tank) where the samples were wet sieved using a 0.5mm mesh with flotation into a 0.3mm mesh sieve. The flotation fractions (flots) were air dried and packed in self-seal polythene bags that were marked with details of the project code, context and sample numbers prior to laboratory analysis. A full analysis of the bulk sample flots was carried out by scanning and 100% sorting each flot using a binocular microscope with magnification settings of between x7 and x45 at the University of Leicester’s environmental archaeology laboratory. The course fraction was also separated using a series of sieves (11.2mm, 4.75mm and 1.40mm respectively) and then scanned and sorted for all remains.

Results

As can be seen from Table 5, 31 samples from 18 contexts were sieved, with a total sample volume of 116.014 litres (132.89kg). All the samples were

TABLE 5 – THE PLANT REMAINS

Sample	Trench	Context	Description	Lts	Kg	Flot mls	Cf Ch	Un se	Bo	Chc
2009-1000	2	106	post-pipe (F100)	2	2.2	30				+ fl
2009-1001	2	100	fill of posthole (F100)	4	5.4	125				++ fl
2009-1002	2	106	post-pipe (F100)	0.5	1.5	20				+ fl
2009-1003	1	009	upper portion of cist fill (cairn 2)	11	11.8	900				-
	1	009	middle portion of cist fill (cairn 2)	6	10	400				+++ fl
	1	009	lower portion of cist fill (cairn 2)	1.2	2.4	40				+ fl
2009-1004	3	401	burning layer	10.5	15	100				+++ fl
2009-1006	3	202	stakehole fill (F201)	0.05	-	50				+ fl
2009-1007	3	204	stakehole fill (F202)	0.014	-	14				-
2009-1008	1	011	buried soil (cairn 1)	11	12	600				-
2009-1009	1	011	buried soil (cairn 1)	5	7	50				-
2009-1010	1	011	buried soil (cairn 1)	14	17.5	100				+ fl
2010-1	3	402	Fill of posthole F42	4	3.8	120		+		+ fl
2010-2	1	305	Soil interspersed with primary cairn stones	10.32	9.8	300				+++ fl
2010-3	3	404	Fill of posthole F48	4.21	4	100				+ fl
2010-4	3	401	burning layer	1.7	1.6	25				+ fl
2010-5	3	412	fill of stakehole F41	0.05	0.08	2			+	+ fl
2010-6	3	408	compacted surface - southern 2/3 of Trench 3	2.6	2.4	50				++ fl
2010-7	3	421	natural orange silt subsoil	4.63	4.4	50		+		+ fl
2010-8	3	415	fill of stakehole F44	0.14	0.13	8			+	
2010-9	3	417	fill of stakehole F43	0.15	0.13	4				
2010-10	3	419	fill of stakehole F45	0.13	0.13	3				+ fl
2010-11	3	403	fill of stakehole F46	0.32	0.26	11				
2010-12	3	401	charcoal concentrations	0.51	0.56	8	+			+ fl
2010-30-1	1	305	cairn 2 - stone cluster/northern boundary	0.53	0.5	60				+ fl
2010-30-2	1	305	cairn 2 - stone cluster/northern boundary	1.7	1.6	4				+++ fl
2010-30-3	1	305	cairn 2 - beneath stone /southern boundary	0.4	0.4	4				
2010-30-4	1	305	cairn 2 - base /southern boundary	0.86	0.8	10				+fl
2010-30-5	1	309	cairn 2 - base /cist structure	3.72	3.5	50				+++ fl
2010-30-7	1	309	cairn 2 - base/south and east of cist	3.2	3	20				+++ fl
2010-30-8	1	309	cairn 2 - base/south and east of cist	11.58	11	75				+++ fl
			Total	116.014	132.89	3333				

Key: Cf = chaff charred, Un Se = uncharred seeds, Bo = bone, Chc = charcoal, fl = flecks,
+ = present, ++ = moderate, +++ = abundant

predominately composed of stone fragments, peaty soil, and root and organic material contamination (modern). The archaeobotanical evidence was extremely sparse and was overwhelmingly in the form of charcoal flecks that were present in the majority of samples, the quantities were however minimal. For example, samples 2010-2, 2010-4, 2010-6, 2010-30-2, 2010-30-5, 2010-30-7 and 2010-30-8 contained only between 0.2 and 1.86g of charcoal fragments; the rest of the samples contained none or a few tiny fragments. The comparable levels of charcoal found in the cairn samples 2010-30-5, 2010-30-7 and 2010-30-8 may support the assumption that these samples were all from the buried soil deposit that appeared to extend beneath the cist. This may possibly be evidence of site clearance prior to the building of the cairn. The only other potential archaeobotanical evidence was the single possible cereal culm node (cf. *cerealia*) found in sample 2010-12. Samples 2010-1 and 2010-7 contained a small amount of modern plant buds that were identified as *Juncus* cf. *conglomerates* (Common rush). Samples 2010-5 and 2010-8 contained tiny fragments of uncharred non-diagnostic mammal bone.

Assessment of the wood charcoal by Ruth Young
Charcoal was recovered from a number of the flotation samples as well as by hand from contexts during the process of excavation (Table 6). Wood charcoal preparation and identification followed standard procedure, namely examining a range of pieces 2mm^3 and larger, splitting them according to transverse, radial longitudinal and tangential longitudinal sections, and examined under magnification up to x100 (Dimbleby 1978). Identification of wood charcoal was carried out using the keys of Hather (2000), Ilic (1991) and Schweingruber (1978) alongside reference material.

In the main the fragments of charcoal were too small to permit identification. However, in seven instances sufficient intact charcoal was recovered to facilitate identification (Table 6). The presence of oak is to be expected in an assemblage from a British site of this period (see eg Boyd 1988; Gale 1994), and suggests exploitation of local woodland for fuel and construction purposes.

APPENDIX 3

The geophysical survey

The geophysical survey results comprise two blocks of survey carried out around the stone settings of Lanacombe II and III and reported in detail in Gillings *et al.* (2010). As part of the excavation work reported here a further 200 x 60m area was surveyed linking the existing Lanacombe II and III survey blocks, as well

TABLE 6 – THE CHARCOAL

sample	*Description*	*context*	*identification*	common name
2009-1004 (flotation)	*Buried soil (trench 3)*	*411*	*Quercus spp.*	Oak NB: anatomically cannot be identified below level of Genus. (Hather 2000 p 48, 49).
hand-excavated	*Burning layer (trench 3)*	*401*	*Quercus spp.*	Oak
hand-excavated	*Compacted surface (trench 3)*	*408*	*Quercus* spp.	Oak
hand excavated	*Buried soil (trench 3)*	*411*	*Quercus* spp.	Oak
2010-13 (flotation)	*Buried soil (trench 3)*	*411*	*Alnus glutinosa*	Alder - (Hather 2000p 142, 145)
2010-30-2 (flotation)	*turf in primary phase of cairn 2*	*305*	*Quercus* spp.	Oak
2010-6 (flotation)	*Compacted surface (trench 3)*	*408*	*Corylus avellana*	Hazel - (Hather 2000 p 142, 145)

as extending the Lanacombe II survey to better define the linear features. The results presented in Fig. 2 therefore extend and compliment the surveys discussed in the 2010 publication.

Soil resistance survey was employed throughout, employing a twin-probe array (RM15) with sample and traverse intervals of 0.5 and 1.0m respectively. Data was handled using Geoplot 3 and Archaeosurveyor 2 software suites – the image presented in Fig. 2 has not been filtered or post-processed beyond interpolation in order to match the traverse interval to the sample interval for display purposes.

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