

Bronze Age stone worlds of Bodmin Moor: excavating Leskernick

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Most archaeological work on the British Bronze Age has been undertaken in Wessex. Here a team from UCL's Institute of Archaeology and Department of Anthropology describe their investigation of a very different Bronze Age landscape on Bodmin Moor in Cornwall. Their project, at the site of Leskernick, is innovative in its methodology and in how it is presented to the public.

During the summer of 1999 we completed our fifth and final season of survey and excavation at the Bronze Age site of Leskernick Hill on Bodmin Moor.¹ The site is remarkable, both for the exceptional preservation of its stone architecture on the surface of the present-day landscape (Fig. 1) and for the close proximity of domestic and ritual structures. This proximity hints at both a close relationship between everyday domestic rituals and more public ceremonies, and an intimate connection between the natural world and the culturally constructed world. Such relationships have seldom been touched upon in analyses of British Bronze Age societies, and they suggest a world view markedly different from our own. Most textbook constructions of the British Bronze Age focus on the archaeology of the chalklands of south-central England, especially Wessex. Leskernick and related sites on Bodmin Moor differ strikingly from those of Wessex and have much

to contribute to our understanding of regional societies in the British Bronze Age.

At Leskernick, our general aims have been to investigate, by means of excavation, field survey and environmental sampling, the relationships between settlement, landscape and environment at several spatial scales. We have investigated:

- the architecture and internal organization of the houses and their relationship to each other
- the relationship between the houses and their field enclosures
- the layout of the ritual complex and its relationship with the settlement
- the Bronze Age environment and land-use of Leskernick and its immediate region
- the relationship between the cultural context of the houses, enclosures and cairns and features of the local and wider landscape, particularly the symbolism of stone use.

A further, and unusual, aim of the



Figure 2 Southwest England showing the location of the granitic massifs of Dartmoor and Bodmin Moor, and the site of Leskernick.

project is to monitor the sociology and interpretive processes involved in our work on the Moor.² Our interpretations of Leskernick are a product of many people with differing experiences of the site. We have documented these, in part, by keeping and publishing personal diaries, and by encouraging open dialogue on our web site mailbox.³

Bodmin Moor and Leskernick

Bodmin Moor occupies some 200 km² (Fig. 2) and is one of the best preserved upland prehistoric landscapes of southern Britain.⁴ For much of the year it is rain-sodden and windswept, and today it is a treeless expanse variously mantled by moor grass, heather and bracken, with intermittent boggy areas. Fantastically shaped granite outcrops and ridges dominate the skylines near the edges of the moor.

Leskernick Hill, which today is common grazing land, lies far from roads and tracks. It is an oval hill only 327 m high, enclosed on all sides by higher hills (Fig. 3). On the western side, these hills are rugged, with distinctive outcrops or tors that breach the skyline (Fig. 4). On Leskernick Hill itself, there are dramatic spreads of granite boulders known as clutter, among which the houses and field systems that comprise the prehistoric settlement complex were placed. The settlement consists of the remains of 50 circular stone-wall houses (Fig. 5) which, together with their associated stone-wall field systems, extend over an area of 21 ha. Capping the hill, above the settlement, there is a dramatic propped stone known as the Quoit. Immediately to the southeast, at the foot of the hill, there is a stone-free plain on which there is a ritual complex consisting of two stone circles, a stone row and a large cairn (Fig. 3).



Figure 1 Oblique aerial photograph of part of the southern settlement and enclosures at Leskernick; view northeast, February 1979.

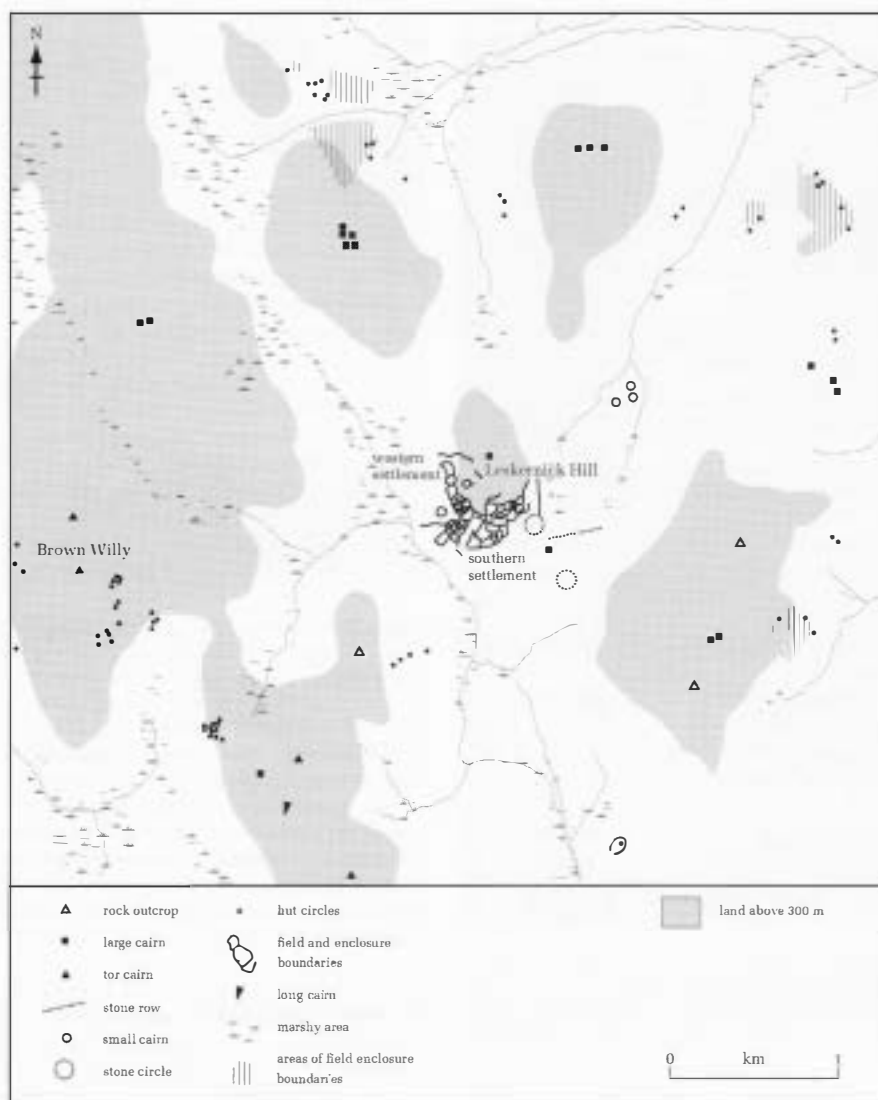


Figure 3 The Leskernick settlement, ritual complex and surrounding prehistoric landscape. Rough Tor lies off the map 1.8 km northwest of the summit of Brown Willy.

was even stonier in the Bronze Age. The structures we have excavated incorporate both in-situ clutter and stones transported by humans. Excavation is slow and labour intensive, in terms both of stone moving and the need for very detailed excavation drawings. Also, we have to decide, for each stone, whether its presence is the result of human action or natural processes. This has necessitated a geomorphological survey of the hill and the development of criteria for distinguishing archaeologically between these two possibilities.⁵

Another difficulty we face in excavating the settlement is that many of the features above the weathered granite bedrock, such as the whole or the upper parts of pits and post holes, are extremely difficult to detect because soil acidification has occurred since the Bronze Age, with the result that such features are often obscured. Burrowing voles have also disturbed the stratigraphy. Understanding local processes of soil development⁶ has been an important part of the project and has proved especially useful to us in locating house floors.

Leskernick and the environmental history of Bodmin Moor

Relatively little is known about the history of landscape change on Bodmin Moor compared with the more thoroughly studied environmental history of the nearby granite massif of Dartmoor (Fig. 2). Fossil pollen from Rough Tor near Leskernick indicates a marked decline in tree cover 1690–1440 cal BC, which may correlate with the expansion of Bronze Age settlement onto the Moor.⁷ Samples for pollen analysis have been taken from a range of on- and off-site contexts at Leskernick,⁸

Dating and excavating Leskernick

Initially, we dated the Leskernick settlement to the Bronze Age on the basis of its overall architectural similarity to other Bronze Age settlements in southwestern Britain. Likewise, we judged the ritual complex to date to the Late Neolithic/Early Bronze Age. A Bronze Age date for the settlement has now been confirmed by a radiocarbon date (from charcoal) of 1430–1265 cal BC from house 39 in the southern part of the settlement, as well as by pottery finds. We await further radiocarbon dates. There is evidence from the excavated houses for more than one phase of post holes, suggesting that houses may have been occupied for several human generations.

We have excavated some 400m² of the hill, by means of 20 widely dispersed trenches. Previously, there have been almost no published excavations of prehistoric settlements on Bodmin Moor. Our work has generated a methodology for digging in the difficult environment of the moor as well as detailed information on the

architecture, environment and abandonment of these remarkable Bronze Age sites.

Leskernick Hill is extremely stony and our excavations indicate that its surface



Figure 4 Rough Tor with Brown Willy in the background.



Figure 5 House 29 in the southern settlement at Leskernick.

and preliminary analysis of them suggests that settlement took place in a cleared environment dominated by grassland and heath. No evidence of cereal pollen has been found in the on-site samples. Analysis of charcoal from the Leskernick houses suggests a dominance of oak, which was probably brought to the settlement from woodland in nearby valleys.

The Leskernick settlement complex

Leskernick consists of two distinct settlement areas. On the western edge of the hill there are the remains of 30 circular stone houses that comprise the western settlement. This is separated by a corridor from the southern settlement which contains the remains of 20 houses (Figs 3 and 5). The houses range from 6 m to over 10 m in diameter and their walls originally stood up to a height of about 1.5 m.

Excavation of two of the largest houses (1 and 39) has shown that each had an internal ring of posts and a central post to support the roof. House 39 additionally had a post-supported porch structure. It was circular, whereas house 1 was sub-circular and had a sloping floor. House 1 questions our stereotypes of Bronze Age houses (as having level floors and true circularity), which are predominantly based on the post-built round houses of the chalklands of south-central England. The stone walling of the Leskernick houses incorporates several distinctly different building techniques, including wall cells filled with rubble, abutting vertical monoliths, and flat-laid courses of monoliths. Variation in appearance and construction within individual house-wall circuits appears to have marked out different conceptual or activity areas of the building. The backstone of the interior wall, positioned opposite the entrance, is consistently the most visually impressive fea-

ture. These backstones, around which the house walls were built, are massive whale-shape or triangular boulders embedded in the earth, which form part of the natural landscape of the hill (Fig. 6). Large flat boulders were also important and were often incorporated into the entrance area. Internal features include cobbled entrance areas, paved areas, and probable partition walls (one example was excavated in House 1).

Preliminary study of the artefacts found on the house floors affirms the existence of distinct activity areas. These are distinguished by the presence of pottery sherds (relatively uncommon), struck quartz and flint, slate (often incised with criss-cross cut marks), grindstones and hammerstones. The tentative identification of tool-

kits using struck quartz is new for southern Britain. The quartz and the incised slate may relate to leather-working activities, and the grindstones to grain preparation.

Collapse, disuse and decay of the structures are represented by several stratigraphic episodes of wall collapse, stone robbing, and infilling of wall rubble by slopewash. In the case of house 1, a major wall collapse seems to have taken place during the use of the house, with attempts made to shore it up. Large quantities of charcoal and burnt flag stones in the excavated houses suggest burning of the wood and thatch superstructures. This may have been the reason for, or part of the tradition of, house abandonment. These episodes of collapse are contemporary with increasing acidification of the moor, and they suggest a possible reason for the apparent wholesale abandonment of Leskernick and other settlements on the moor at the end of the Bronze Age.

The enclosures

Our surface surveys indicate that Leskernick's enclosures and field systems grew in a curvilinear fashion from several centres. The enclosures vary in size from 0.25 to 1.00 ha, and today their walls are 0.6–2.0 m wide and up to 1.2 m high. The enclosure and boundary walls relate closely to the natural patterns of clutter on the hill. The major axes of the clutter flows form the basis of the boundary systems, suggesting that the clutter may have had a pre-existing symbolism. The walls are strung between huge boulders and connect major clutter concentrations (Fig. 7). This could be interpreted as minimizing construction effort by maximizing the local use of naturally embedded rocks, but the walls persistently follow unsensible alignments. Our excavations of seven wall sections indicate that no single wall-building technique was



Figure 6 Exterior walls of house 20 at Leskernick with prominent whale-shape backstone opposite the entrance, and triangular stone wrapped in cling film and painted.

Figure 7 Wall junction in the clutter south of house 39, southern settlement, Leskernick.

used. Instead, construction was adapted to the clutter.

The excavated field walls lacked sediment accumulation against them, suggesting that they were used to control the access of livestock to pasture rather than to demarcate arable fields. This interpretation is in line with our current pollen evidence, and is being further investigated by means of phosphate analysis to detect nutrient enrichment from animal waste.⁹ In contrast, the build-up of sediment against walls enclosing settlement areas suggests that intense domestic and industrial activities took place outside the houses, resulting in the erosion of adjacent land surfaces. Excavation of the walls around the settlement enclaves revealed visually impressive constructions of carefully chosen square blocks tightly fitted together. These walls may have been social statements as much as boundaries.

Domestic and public ritual

Within, and on the edges of, the settlement complex there are more overtly ritual structures, such as structure 23 (Fig. 8). Also, dramatic stones are emphasized by encircling them with smaller ones. Structure 23 is a circular stone-wall structure, 3.70m diameter, in the western settlement. Excavation indicated that it was not a roofed building, but rather an open-air circular enclosure that incorporated a prominent triangular field boulder of possible ritual significance.

Excavation of cairn 5 in the southern settlement failed to locate any burial evidence. Instead, it was found to be a cairn built on, and emphasizing, a clutter concentration. This may point to the cairns having a symbolic as much as a burial role. We have suggested, for instance, that the



cairns of the western settlement may have functioned variously, and perhaps simultaneously, as shoring mechanisms against house collapse and also as symbols of the death and ultimate decommissioning of houses.

The alignment of the stone-row ritual complex below the southern settlement directs movement uphill towards a view of the tip of Rough Tor (a striking landmark and a major Neolithic and Bronze Age ritual site) 4 km northwest of Brown Willy (Fig. 3). As one walks along the stone row, which is 317 m long, the tip of Rough Tor comes into view as the walker approaches the terminal area (Fig. 9). Although the stone row is made up of small ankle-high stones, excavation has demonstrated that the terminal consisted of three dramatic stones of up to 2 m high, which are positioned to maximize the view of Rough Tor. This is just one example of how the layout of Leskernick's architecture is oriented

towards a wider world of skyline tors and dramatic rocky masses, many of which are capped with cairns. The view from Leskernick extends for a radius of 2 km (Fig. 3) and house entrances and doorways are oriented towards the tors.

Different Bronze Ages

Excavation and surface survey therefore suggests a Bronze Age world in which recurrent structural associations are reflected in the houses, walls, cairns and other clutter features of Leskernick. Our surveys of other Bronze Age settlements on the moor have revealed similar patterns of association between landscape features, clutter patterns and the architecture and layout of settlements, which suggest a communal rock-using ideology.¹⁰ This conclusion also suggests that we need to explore regional variability more explicitly in our reconstructions of British Bronze Age societies. These have traditionally been derived from south-central England, where the primary building material was wood, and the landscapes (rounded, undulating chalklands) and economies (field systems of arable agriculture) were very different from those of the granite massifs of the southwest. Our classic Wessex-based view of the British Bronze Age may be just one regional variation. What is clearly distinctive about Leskernick and the Bronze Age settlements of Bodmin Moor is the blurring of the boundaries between the ritual and domestic spheres of life, and between the natural world and the world constructed by humans. Perhaps we should now reconsider the Bronze Age worlds of other regions of Britain in a similar light.



Figure 8 Excavation of structure 23, a circular enclosure that incorporates a triangular clutter upright (against which is a vertical 1 m scale; the horizontal scale is 2 m in length).



Figure 9 Emergence of Rough Tor on the skyline as one approaches (a) and arrives at (b) the Stone Row Terminal at Leskernick.

Re-presenting Leskernick: art, and the exhibition

All involved in the project have had strong emotional and interpretive responses to the place of Leskernick. Visual imagery has become a medium in which to express our responses to investigating Leskernick's past.¹¹ This work is evolving and includes:

- temporarily transforming the surface structures, for example by wrapping stones we consider to have been significant (Fig. 6)
- materializing our surface activities, for example by using coloured flags to mark out in the landscape the places between which we are investigating connections;
- creating graphic collages of our activities at and responses to the site.

In these ways we hope to highlight what we perceive to have had meaning for the Bronze Age societies of the moor.

The Leskernick project has also given birth to a mobile exhibition. It travels to local venues in Cornwall, and also to archaeological conferences. We wished to provide information for local people about our work at Leskernick and, concurrently, we hoped to receive feedback (via local meetings and an exhibition notice board) about the relationship between local perceptions of identity based on place, and our intervention in this process as contributors and outsiders. The exhibition constantly changes as we receive suggestions and new contributions to it.¹² And al-

though our work initially centred on Leskernick, it has now expanded to include surveys of the Bronze Age settlements of Bodmin Moor as a whole.

Notes

1. For an account of some of our earlier work at Leskernick, see B. Bender, S. Hamilton, C. Tilley, "Leskernick: stone worlds; alternative narratives; nested landscapes". *Proceedings of the Prehistoric Society* 63, 147-78, 1997.
2. This work is being undertaken by Henry Broughton, Patrick Lafayette and Mike Wilmore of the Department of Anthropology, UCL, and Tony Wilkinson of the National Trust.
3. The Leskernick web site can be accessed on <http://www.ucl.ac.uk/leskernick>. It has been developed by Paul Basu of the Department of Anthropology, UCL.
4. N. Johnson & P. Rose, *Bodmin Moor: an archaeological survey, volume 1: the human landscape to c. 1800* (London: English Heritage Archaeological Report 24, 1995).
5. This part of the project has been carried out by Stephan Harrison of the Centre for Quaternary Science, Coventry University, and Ed Andersen of the Department of Geography and Environmental Management, Middlesex University.
6. We thank Mike Seager Thomas, Leskernick Excavations Site Manager, and Richard Macphail of the Institute of Archaeology, UCL, for their discussion of soil processes.
7. See B. Gearey & D. Charman, "Rough Tor, Bodmin Moor: testing some archaeologi-

- cal hypotheses with landscape scale palynology", in *Devon and East Cornwall Field Guide*, D. Charman, R.M. Newnham, D.G. Groot (eds), 112-19 (London: Quaternary Research Association, 1996).
8. Pollen analyses are being undertaken by Martyn Waller of the School of Geography, Kingston University (England).
9. Phosphate analysis is being carried out by Jane Entwistle of the School of Geography, Kingston University (England).
10. C. Tilley, "Rocks as resources: landscapes and power", *Cornish Archaeology* 34, 5-57, 1995.
11. B. Bender, S. Hamilton, C. Tilley, "Art and the re-presentation of the past", *Journal of Anthropological Archaeology*, in press.
12. It is refreshing that our web letter box is dominated by the views of local people rather than by any of our own fieldwork agendas. Please visit our web site (see note 3) and enjoy navigating through Leskernick for yourselves.