

A Long Barrow at the Cove?

Geophysical Survey at Stanton Drew

John Richards and John Oswin

When the BANES County Archaeologist, Richard Sermon, invited BACAS to collaborate in a geophysics project and provide public demonstrations on geophysics at an open day in Stanton Drew in July 2009, John Oswin was quick to agree, and set up a programme of research. The Section 42 licences were duly obtained from English Heritage, and BACAS members got the opportunity to work for several days on one of the most important Neolithic sites in the UK.

The village of Stanton Drew lies approximately 10 km south of Bristol city centre and approximately 15 km west of Bath, on the south bank of the River Chew. The stone circles lie mainly to the east of the modern village in farmland. Within the complex are three stone circles, and two avenues. West of this, in the pub garden of the Druids Arms, are the three stones known as the Cove.

In the nineties, English Heritage carried out a geophysical survey with surprising and spectacular magnetometry results that showed nine concentric rings of probable post-holes and an encircling ditch in the Main Circle, and also features in the other circles (David et al 2004).

The BACAS work extended the geophysical survey beyond that of English Heritage by demonstrating the capability of newer instruments to detect and investigate more features than have been studied to date. We wanted to see if recent fluxgate technology could produce a view of the Main Circle as clear as the Caesium vapour magnetometer used by English Heritage; whether

Figure 1
Overhead view of the Cove



twin-probe resistance and pseudosection profiling could detect empty stone sockets and buried stones; and to examine the nature and purpose of the SSW Circle and the Cove. These objectives were largely met, but there is insufficient room here to give the full details, which can be found in the BACAS report (Oswin et al 2009).

The most intriguing results were found at the Cove. In June, we took overhead photographs using our 5 m monopod to see if that revealed any hidden detail (*Figure 1*). It shows clearly the fracture in the recumbent slab. The fracture lines form a pattern similar to the shape of the tall standing stone. However, that may be just a result of the geological formation of that stone. It does appear that the recumbent has fractured at its base and the stub is still in the ground. It is canted at an angle,



Figure 2
The false portal at Lugbury Long Barrow

suggesting the stone was partly lifted towards vertical when it cracked and the unsupported portion fell to earth. This fall may have caused the fracture.

Two grids were surveyed using the TR/CIA resistance meter with half-metre separation of the probes. This gave a remarkable picture, apparently showing an increase in resistance starting abruptly a couple of metres east of the baseline at the north (start) end.

As the survey continued south, the high resistance area slowly became wider. Once close to the Cove, there is a large area of very high resistance, continuing to the fence. A linear scale plot (*Figure 3*) suggests that the area of highest resistance is just north of the stones, and detail suggests a chamber west of the fallen stone. The area south of the stones shows less high resistance. Even at the north end, there are patches of higher resistance, suggesting features within the area. There is also a patch of very low resistance in the north-west corner.

The resistance pattern is consistent with that of a long barrow with stone used in its construction, oriented approximately north-south. The Cove is at the southern end of this, and could have been part of the structure or free-standing in a courtyard. The northern extent of the 'barrow' is not known as it extends into the private garden of the pub. The patch of very low resistance may represent a 'ditch' or scoop on its western side.

Resistance profiles were done with the 22 probes set at half metre spacing so that they could fit east-west in the space available. Five profiles were taken, at 2, 7, 12, 17 and 22 m from the northern end (at the positions indicated by the horizontal lines in *Figure 3*). The last profile on the 22 m line was threaded between the three stones.

The profiles are shown in sequence from north to south in *Figure 4*. A band of stone can be seen, becoming wider and denser as the profiles move southwards.

In the last profile, the stone band is some half metre thick, probably on top of earth, sitting about 0.75 to 1.25 m below the surface. A shallow dip indicates where the standing stones are, and suggests only shallow foundations. These profiles all give extra useful supporting data to the twin-probe resistance survey, suggesting the presence of a stone structure running north-south.

Conclusions

Spectacular results were obtained at the Cove, both in twin-probe resistance and pseudosection profiling. Magnetometry was of little benefit here as there was too much metalwork in the close vicinity. A suggestion by Richard Sermon and Dr George Nash that it could be the remains of a long barrow seems to have been vindicated, and supported to a very high degree by pseudosection profiles. The high resistance areas are intriguing and may represent the existence of tomb chambers.

The possibility of a long barrow is enhanced by the similarity between the resistance map and those reported by Marshall (1998) for Cotswold long barrows. This applies both to the basic structure of the barrow, and also to the possibility of a ditch beside it.

Its full outline is obscured to the east by the wall to the churchyard, but the orientation of the barrow would be approximately south-south-east. This is within the known range of alignments, but is not common (Lewis 2005, 68). If the barrow extends northwards into the private garden of the pub then it could be anything up to 50 metres long, with a width up to 20 metres. This is well within the parameters for known long barrows in northern Somerset (Lewis 2005, 56-58).

The stones of the Cove could represent a false portal at the rear of the barrow forecourt, with the now fallen stone originally placed erect behind the two standing stones. Similar configurations exist at Belas Knap and West Tump in Gloucestershire, and Lugbury and the Giant's Caves at Luckington in Wiltshire. Often the flanking stones are different heights and shapes (Darvill 2004, 115-116). The false portal at Lugbury bears a strong resemblance to the Cove (*see Figure 2*).

If the Cove were to be part of a long barrow, this is a major discovery that has implications for the interpretation of the Stanton Drew complex. It would set the date of creation of the Cove several hundred years before the stone circles. When the circles were constructed, the Cove would already have been an ancient site. Geophysical survey has once again added significantly to our knowledge of Stanton Drew.

Acknowledgements

The geophysical survey was conducted by BACAS volunteers, led by John Oswin, assisted by John Richards, plus for varying times:- John Hare, Roger Wilkes, Jan Dando, Jane Oosthuizen, Jenni Craft, Olga Blondel, Les Hayes, Gillian Vickery. We are very grateful for all their efforts.

The overhead photographs and EDM surveys were led by Keith Turner. The photo of Lugbury was supplied by Chance of Chippenham. Thanks are due most, of course, to Mr Richard Young for allowing us on his farmland, Mr Neil Hare of the Druid's Arms Inn, for his hospitality and enthusiasm, and Richard Sermon, archaeologist for BANES, for inviting BACAS to work on this joint research project, organising access with the landowners, and obtaining the geophysics licences from English Heritage.

Bibliography

- Darvill, T. 2004. *Long Barrows of the Cotswolds and Surrounding Areas*. Stroud: Tempus.
- David, A., M. Cole, T. Horsley, N. Linford, P. Linford, and L. Martin. 2004. "A rival to Stonehenge? Geophysical survey at Stanton Drew, England." *Antiquity* 78: 341-358.
- Dymond, C.W. 1896. *The Ancient Remains at Stanton Drew in the County of Somerset*. Somerset: Privately published.
- Lewis, J. 2005. *Monuments, ritual and regionality: the Neolithic of northern Somerset*. BAR British Series 401. Oxford: Archaeopress.
- Marshall, A, 1998. "Neolithic long barrows. Use of integrated remote sensing at high resolution to establish general layout and detect foreground structure." *Archaeological Prospection* 5:101-116.
- Oswin, J., J. Richards, and R. Sermon. 2009. *Geophysical Survey at Stanton Drew, 2009*. BACAS.

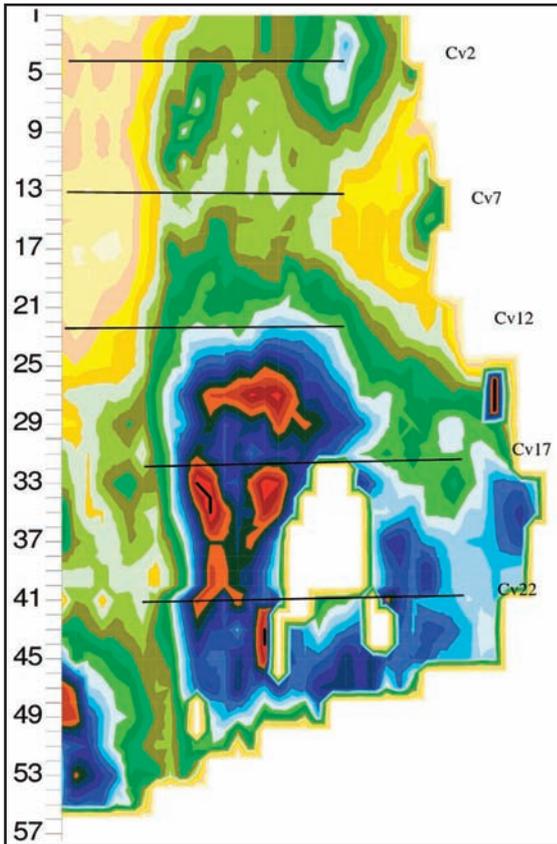


Figure 3
The Cove: twin probe resistance, high resolution linear scale, with positions of the five pseudosection profiles (horizontal lines).
Figure 4
The Cove: pseudosection profiles.

