



Kenidjack holed stone, St Just, Cornwall

Repair and restoration



Historic Environment Projects

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Acknowledgements

This report describes work organised by Historic Environment Projects, Cornwall Council (formerly Historic Environment, Cornwall County Council) to repair a holed stone of prehistoric origin in the parish of St Just in Penwith.

The work took place on the large area of open downland below Carn Kenidjack, an area which is being managed through a recently agreed Higher level Stewardship scheme. We are grateful to the landowner, the grazier, and Natural England, for their support. Cornwall Ancient Sites Protection Network (CASPN) first alerted English Heritage and Historic Environment to the problem. Cheryl Straffon of CASPN contributed one of the images included in this report. The repair of the stone was undertaken out by Adrian Thomas and David Cutting of St Just.

Within Historic Environment, the Project Manager was Ann Preston-Jones.

The work was undertaken as part of Cornwall Council's Scheduled Monument Management Project for 2011-12: a project funded jointly by English Heritage, the Cornwall Heritage Trust, Cornwall Council and other partners.

The views and recommendations expressed in this report are those of Historic Environment Projects and are presented in good faith on the basis of professional judgement and on information currently available.

Freedom of Information Act

As Cornwall Council is a public authority it is subject to the terms of the Freedom of Information Act 2000, which came into effect from 1st January 2005.



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Cover illustration

Repair work in progress: the top part of the stone is lowered into place.

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Abbreviations

EH	English Heritage
HER	Cornwall and the Isles of Scilly Historic Environment Record
HE	Historic Environment, Cornwall Council
NGR	National Grid Reference
OS	Ordnance Survey
PRN	Primary Record Number in Cornwall HER

1 Summary

On gently sloping heathland below the rocky granite tor of Carn Kenidjack in St Just is a rich prehistoric landscape which includes one stone circle, part of a second circle, a number of barrow-mounds and a group of holed stones, as well as the remains of a prehistoric field system and hut circles. This report describes repairs to one of the holed stones. First recorded in the nineteenth century, protected through scheduling in the early twentieth century, recumbent for most of the twentieth century but restored in the 1980s, this stone fell and broke again in the twenty-first century. The 1980s restoration of the holed stone involved cementing it together and standing it upright on the ground. Always unstable, it finally fell apart again in 2010. This report describes a more permanent repair, made in August 2010 by pinning the two halves of the stone together with stainless steel pins and mounting on a base. Located at SW 3898 3262, the stone is a Scheduled Monument, Cornwall 15, and number 24541 in the Cornwall Historic Environment Record (HER).

2 Introduction

On the south and south-east facing moorland of Kenidjack Common is a line of holed stones. Four are large granite slabs set in a west-south-west to east-north-east alignment. Less conspicuous, and not discovered by all visitors to the site, especially when the surrounding vegetation is high, stands a smaller fifth stone, just to the west of the main group.

This report describes work undertaken in 2011 to repair the smaller fifth stone. The stone is a Scheduled Monument, Cornwall 15, and number 24541 in the Cornwall HER.

2.1 Location and setting

The holed stones stand on the wide expanse of common land surrounding Carn Kenidjack. Set in open heathland amidst a sea of heather, they are on ground sloping gently to the south-east, at approximately 175 metres OD. The underlying bedrock is granite and the soils thin and highly acidic (Hexworthy series).

2.2 Description of the monument

The site consists of a main group of four holed stones in a roughly west-south-west to east-north-east line. To the north-west of the main group is the further, smaller holed stone, and to the north-east a sixth which is almost certainly modern since, unlike the others, it has a straight, rather than hour-glass-shaped perforation (McNeill Cooke 1996, 167; Hill forthcoming). The function of the site is not known, but it is likely to be of prehistoric origin and to have formed part of a wider ceremonial landscape around the nearby Tregeseal stone circles (Buller 1842 map; Kirkham 2008; and see Fig 2): in which case a late Neolithic or early Bronze Age date may be indicated (Straffon nd). The present configuration of the main group of stones suggests that they may be part of a short stone row.

The following account is based on the record of the monument in the Cornwall Historic Environment Record (HER), augmented with research carried out by Cheryl Straffon (Straffon 2003).

2.2.1 History

A line of holed stones was first noted and sketched by Buller in 1842 who recognised four holed stones, three relatively intact, one broken (Buller 1842, 100). Buller's drawing suggests that at the time they were lying on the ground, not upright. Blight in 1864 recognised a further stone, one hundred yards to the north of the first group, which he described as being 'broken in two, but the parts lying together' (Blight 1864, 295; and see Fig 5). Lukis noted a fifth stone west of the main group 'but I missed seeing it, not having been aware of its existence, and they are all prostrate' (Lukis 1875, 17). The discrepancy between the locational details supplied by the two authors is confusing but it seems likely that they were both referring to the same stone, which is now 22 metres (about 72 ft) west-north-west of the centre of the main group. The main group of four stones is marked on early Ordnance Survey (OS) maps (Fig 3). In 1922, Charles Henderson visited the site in order to record and recommend the stones for adding to the new scheduled of ancient monuments being compiled at the time (Henderson 1922). His drawing (Fig 5) shows three of the stones upright, suggesting they had been erected since Lukis' day; however they were not to stay upright. Henderson's intervention was timely and captures an important moment in the history of the stones:

'These stones are all in a line and form a very remarkable and puzzling monument. In the past few weeks (Sept 1922) *they have all been wantonly thrown down*. The common is being much quarried for stone and their fate is not difficult to guess. A fifth stone about 100 feet west in the same line has perished since Lukis wrote.'

The monument was recorded by archaeological surveyors from the OS in 1960, who found the four main stones still recumbent. They doubted the authenticity of the fifth outlier (OS index card SW33SE39), to the north-west of the main group – which evidently had not been lost in 1922. When Barnatt in 1982 described the site he also expressed doubt about its interpretation, although in this he was misled by the discovery of the sixth stone and as a result questioned the authenticity of the group as a whole (Barnatt 1982, 95). All six stones were planned and drawn by Weatherhill (1980). The site was sketch surveyed by Sharpe for the CAU in 1985 (GRE 2/33), and Graham Hill in 2011 sketched the sixth stone (to the north-east), drawing attention to the fact that its straight-sided perforation is not of prehistoric origin, but the work of 'Cornish miners, working with iron tools' (Hill forthcoming).

2.2.2 Description

The Ordnance Survey in 1960 found the site to consist of four large slabs, all recumbent, extending in an irregular line across moorland. Three are roughly similar with hourglass perforations: at the centre of each slab the hole is 3" to 4" in diameter (10 to 15 cm), but at the faces the perforation widens to 6" to 8" (15 to 20.3 cm). The largest was nearly 1.3 metres long. Only half the fourth stone survives, the fracture being across the hole. '19.0 m. to the north-west is the fifth stone. It is unlike the others, being an upright block of rectangular section. It is as described and measured by Blight, fractured across the hole, which is of hour glass type but slightly smaller than those in the other stones. It is rather doubtful if it is 'in situ' since it stands on, or in, a bank of upcast, and is not firmly fixed. The position also differs from that described by Blight.' The group of stones is centred at SW 3900 3261. In 1975, the site was unchanged (OS 1968, 1975).

The stones remain as described by the Ordnance Survey, except that since their record, three stones in the main group have been set upright and the fifth stone set up, fallen and now restored again.

2.2.3 Interpretation

Barnatt in 1982 considered the four stones in the main group to be similar to the other prehistoric holed stones in Cornwall at the Men an Tol and the Tolvan: 'the stones and their holes are smaller but they look as ancient' (Barnatt 1982, 95). However on the hillside nearby he found a 'fifth' stone whose hole was of similar size, but straight-sided, not bevelled. 'It is clear that the stone was drilled and that it split in two while being made; a lip at one side still exists. This he considered might cast doubt on all the other holed stones, not just on the common but in Cornwall as a whole. Unusually, Barnatt was in error here for what he had found was not the fifth stone which is the subject of this report, but the sixth stone to the north-east, which is of relatively modern origin.

Because they have been repeatedly disturbed, the original orientation of the stones is not known: Straffon has suggested that the holes of those in the main group may once have been aligned so that they were all oriented to face the Boswens Menhir, just over a kilometre away to the east-north-east and visible on the horizon, and/or that they were used to observe the equinoctial sunrise and/or sunset. She notes that since the original location of stone 5 is unknown, and the earliest reference places it to the north of the main group, its purpose is less clear, 'but may have been related to the rocks on Carn Kenidjack, a notable point on the horizon to which the hole may have been aligned' (Straffon 2003).

Although this account suggests that there is some doubt over the authenticity of the fifth stone in the group, there seems little reason to doubt its prehistoric origin. The hole is an hour-glass-type perforation, like the others, and its size compares with the other stones. Though smaller than the others this stone is badly damaged, suggesting that if complete it could once have been of similar stature.

Despite acceptance of the prehistoric origin of the stones, their exact interpretation remains uncertain, given that they have been disturbed. Further research, perhaps involving techniques like geophysical survey, would be needed to throw light on their relationships and function.

2.3 Condition of the monument

Nineteenth century records show that the stones were recumbent at that date. The drawing that accompanies Henderson's 1922 scheduling shows three of them upright (Fig 5), while his description states that they had been recently thrown down and they were under threat from stone cutting. Perhaps they were saved from complete destruction by the designation resulting from Henderson's visit. At any rate, they were amongst the earliest of sites to be included in the schedule of ancient monuments for Cornwall. In the 1960s and 70s, the stones were still recumbent, but Straffon records that 'some time prior to 1985, local farmer Egbert Rowe undertook to re-erect the fallen stones'. The three complete stones in the main group were set upright, but the broken stone left lying on the ground. From discussion with Egbert Rowe, Straffon gathered that the stones were simply placed upright in roughly the place where they lay (Straffon 2003). Sir Norman Lockyer noted that they had been knocked down and set up again (not necessarily in their old places) 'two or three times', although he was informed that they had not been moved far from their original positions' (Kirkham 2008).

The fifth stone, which is the subject of this report, was mended with cement and placed upright by Egbert Rowe at the same time as the other holed stones, and like them was not fixed in the ground (GRE 2/33). So too was the sixth, modern stone, although this had broken again by 2004 (Preston-Jones 2004): an inevitable consequence of the fact that the repair had consisted only of a thin layer of cement.

Subsequently, reports of the English Heritage Field Monument Wardens confirm the fact that the fifth stone was loose and not fixed, while also doubting whether it was actually a part of the scheduling since it was not described in the original documentation (Sheppard 1981, 1985, Preston-Jones 2004). (It is certainly, however, part of the very large Scheduled area of Co 1086, Field System on Truthwall Common). Various images (Figs 6-9) indicate that stone 5 has been moved around slightly over the years; Fig 10 shows the stone in its setting after a moorland fire which burnt all the vegetation in the area. However by the time of the work described in this report, the vegetation had regenerated to a roughly knee-high cover of heather and gorse.

2.4 Project background

Cornwall Ancient Sites Protection Network (CASPN) had been concerned about the stone's condition for some years and when it broke again in 2010, along the line of the old cement repair, it was they who asked if English Heritage or Historic Environment would be able to help with the necessary repair.

A number of reasons made it essential to repair the stone as soon as possible.

- The two smaller pieces of granite were potentially more portable than the one large block of stone, and there was considered to be a potential (if slight) risk of theft
- The site is a well known amenity: its present condition was not considered to be a good advertisement for care of the heritage in Cornwall.
- The site has many visitors and there was felt to be a slightly increased risk of further damage with people potentially moving the stones around to examine them

2.5 Aims

The aim of the project was, quite simply, to repair the stone, and to repair it in such a way that it would remain accessible, be secure, and as close as possible to its pre-damage appearance.

3 The restoration of the stone

The repair of the stone was carried out by Adrian Thomas and David Cutting of St Just. In summary, the two halves of the stone were pinned together using stainless steel pins, and the joint pointed in lime mortar. The stone was mounted on a base, part-sunk in the ground, to provide security and strength while leaving the full height of the stone, including its hole, visible.

Restoration took place in the second week of August 2011. The two parts of the stone were removed from site to the workshop on 14th August, and re-assembled in its moorland setting four days later, on 18th August.

3.1 New base

The new base is a roughly triangular stone of surface granite, chosen because the shape is similar to the shape of the bottom of the holed stone. It measures 0.6 x 0.4 m and is just over 0.2 m thick.

3.2 Restoration of the stone

3.2.1 In the workshop

In the workshop, the granite base was prepared for the holed stone by levelling it slightly to enable the stone to sit more securely, and a single hole 14 mm in diameter and approximately 15 mm deep was drilled to receive the stainless steel pin which now holds the stone on the base.

The bottom of the holed stone and the broken faces of the two parts of the stone were measured and carefully drilled to make dowel holes for the stainless steel pins used to repair the stone.

A trial fitting was carried out in the workshop before the stones were taken back onto the site for reassembly. Because of the stone's fragility, the final assembly was done on site, to avoid any damage to the stone or the fixings in transit.

3.2.2 On site

The restoration of the stone on site involved the following stages:

1. A hole was excavated to take the base (Fig 13).
2. The base was set in the ground in the position in which the stone had stood before it fell over. This is on the slight bank on the lower edge of a shallow leat (seen in Fig 9). The base was placed with its long edge parallel with the leat and its apex pointing downhill. It was placed so that the stone, once erected, would be facing Carn Kenidjack, thus close to the stone's pre-damage orientation and reflecting its likely original relationship with the Carn (see above, page 11).
3. A trial fitting was carried out, to ensure that all was well and that the alignment and positioning of the stone was satisfactory, before going ahead with the final pinning and mortaring. The lower part of the holed stone was lifted into place by hand and the pins inserted into the lower dowel holes. The upper half was then lifted into place by hand. Two trials were undertaken before we were satisfied that the positioning of the stone was right (Fig 14).
4. All parts apart from the base were then removed again and the final restoration begun. The pin was glued into the base first of all, using a polyester stone resin.

5. The lower part of the stone was then firmly bedded on this (Fig 16).
6. Once the resin had gone off, and the lower part of the stone secured, resin was injected into the dowel holes in both halves of the stone and the pins inserted. Using a pulley suspended from the bucket of the digger, the upper part of the stone was quickly and carefully lowered onto the bottom half of the stone. It was checked for positioning and stability (Fig 17).
7. Once the resin had all set firmly, the joints were pointed with a hydraulic lime mortar: NHL 3.5 in a 1:2.5 mix with sand. Though it had been hoped to avoid the use of mortar so that the stone would remain as natural-looking as possible, pointing was considered essential to help protect, support and stabilise the fragile granite (Fig 18).
8. Finally, earth and vegetation were replaced around the base.

4 Results of the recording

An archaeologist from Historic Environment was on site when the work took place, to ensure that management work proceeded according to agreed methods, to carry out a watching brief when the hole was dug to receive the base stone, and to monitor and record the work. Photography was used as the main medium for recording the management work, with notes made as work proceeded and sketches as appropriate

4.1 Excavating for the base

A hole 0.2 m deep was excavated for the base in the position in which it stood previously, that is on the bank running alongside a leat. Below the heather and grass, excavation revealed a fine dark brown/black peaty topsoil, with no stone. In all possibility this represents silt arising from cleaning out of the leat.

4.2 Observations arising from the restoration work

The granite from which the stone is made is extremely coarse grained granite, with large crystals of feldspar. It is very weathered, kaolinised in places, cracked and fragile. This made drilling a very difficult process and it needed to be done with the greatest of care.

The two parts of the stone do not fit perfectly together. This suggests that they had been separate for a considerable period and had eroded on the broken faces before they were restored by Egbert Rowe in the 1980s.

The stone's unusual shape, with an 'overhang' on one side, is explained by the fact that at least two large flakes of stone have fallen off the (now) west side of the stone at some time in the past. It is possible, but not certain, that the flakes had broken off since Blight's drawing was made (Fig 5). The stone's very flat bottom (which helped it to sit nicely on the ground and now on the new base) also looks suspiciously as though it may have been trimmed at some stage (note the pointed upper edge shown on Blight's drawing, which does not accord with the present shape of the stone). With these pieces restored the stone would have been more substantial. And as the stone is relatively small this raises the possibility that further pieces may have broken away in the past, from an original stone that may once have been a little closer in size to the other holed stones in the group.

5 Conclusion and recommendations

The stone has been satisfactorily repaired and now is not only more stable than it has been for many years, but also better presented, safe from theft and restored as a more prominent member of the monument as a whole (Figs 19 and 20).

In the process of restoring the stone, it was noted that prior to the 1980s restoration, the two parts of the stone had been broken and apart from a considerable time. Was it therefore right to repair it? The answer to that is here considered to be in the affirmative. Few people remember the stone before its repair in the 1980s; so that its restored state had become the quality that people related to. The fact that it was broken had also added to its vulnerability, whereas in its restored state, it is far more secure.

However, the work has revealed the fact that the granite of which the holed stone is made is extremely fragile – perhaps due to its small size, great antiquity and long exposure to the elements. The stone should therefore be treated with the greatest of care and should be regularly monitored. It may be that in the long term the stone would be best housed in a museum; Penlee House in Penzance would be an obvious choice. If such a move were ever contemplated, it would be worth considering carving a replica to put on site in the place of the original stone.

A further recommendation is that the scheduled area should be revised to ensure that it takes account of the full extent of the monument.

6 References

6.1 Primary sources

Ordnance Survey, c1880. *25 Inch Map* First Edition (licensed digital copy at HE)

Ordnance Survey, c1907. *25 Inch Map* Second Edition (licensed digital copy at HE)

Ordnance Survey, 2007. *Mastermap Digital Mapping*

6.2 Publications

Barnatt, J, 1982. *Prehistoric Cornwall: The Ceremonial Monuments*, Wellingborough, Northamptonshire

Blight, JT, 1864. 'Holed Stones of Cornwall'. *Archaeologia Cambrensis* 3rd series, vol 10, 295

Buller, J, 1842. *A Statistical Account of the Parish of St Just-In-Penwith*, Penzance

Henderson, CG, 1922. OW 819, Ministry of Works Scheduling documentation

Hill, G, forthcoming. *Paper on holed stones in Cornwall*.

Kirkham, G, 2008. *The Past in the Present: a walk through 6000 years of history*, HEATH project leaflet, Historic Environment Service, Cornwall County Council

McNeill Cooke, I, 1996. *Journey to the Stones: Mermaid to Merrymaid - Ancient Sites and Pagan Mysteries of Celtic Cornwall*, Men an Tol Studio, Bosulow

Payne, R and Lewsey, R, 1999. *The Romance of the Stones*, Alexander Associates, Fowey

Lukis, WC & Borlase, WC, 1885. *Prehistoric Stone Monuments: Cornwall*

Ordnance Survey, 1961, *Archaeological Index card*, SW33SW39

Ordnance Survey, 1961, *Archaeological Index card*, SW33SW39

Preston-Jones, A, 2004. *English Heritage Field Monument Warden's report*

Sharpe, A, 198- *Cornwall Archaeological Unit Field Drawing*, GRE 2/33

Sheppard, PAS, 1981. *English Heritage Field Monument Warden's report*

Sheppard, PAS, 1985. *English Heritage Field Monument Warden's report*

Straffon, C, 2003. *Report on Tregeseal Holed Stones 20/7/03*. Cornwall Ancient Sites Protection Network

Straffon, C, nd. *Tregeseal Stone Circle and other sites near to Tregeseal Stone Circle*, leaflet available on website of Cornwall Ancient Sites Protection Network

Weatherhill, C, 1981. *Belerion: Ancient Sites of Land's End*, Penzance

7 Project archive

The HE project number is **2011202**

The project's documentary, photographic and drawn archive is housed at the offices of Historic Environment, Cornwall Council, Kennall Building, Old County Hall, Station Road, Truro, TR1 3AY. The contents of this archive are as listed below:

1. A project file containing site records and notes, project correspondence and administration and copies of documentary/cartographic source material.
2. Digital photographs stored in the directory R:\Historic Environment (Images)\SITES.I-L\Kenidjack holed stones
3. English Heritage/ADS OASIS online reference: cornwall2-114057

This report text is held in digital form as: G:\Historic Environment (Documents)\HE Projects\Sites\Sites K\Kenidjack holed stones 2011\Kenidjack Holed Stone report



Fig 1 Location map

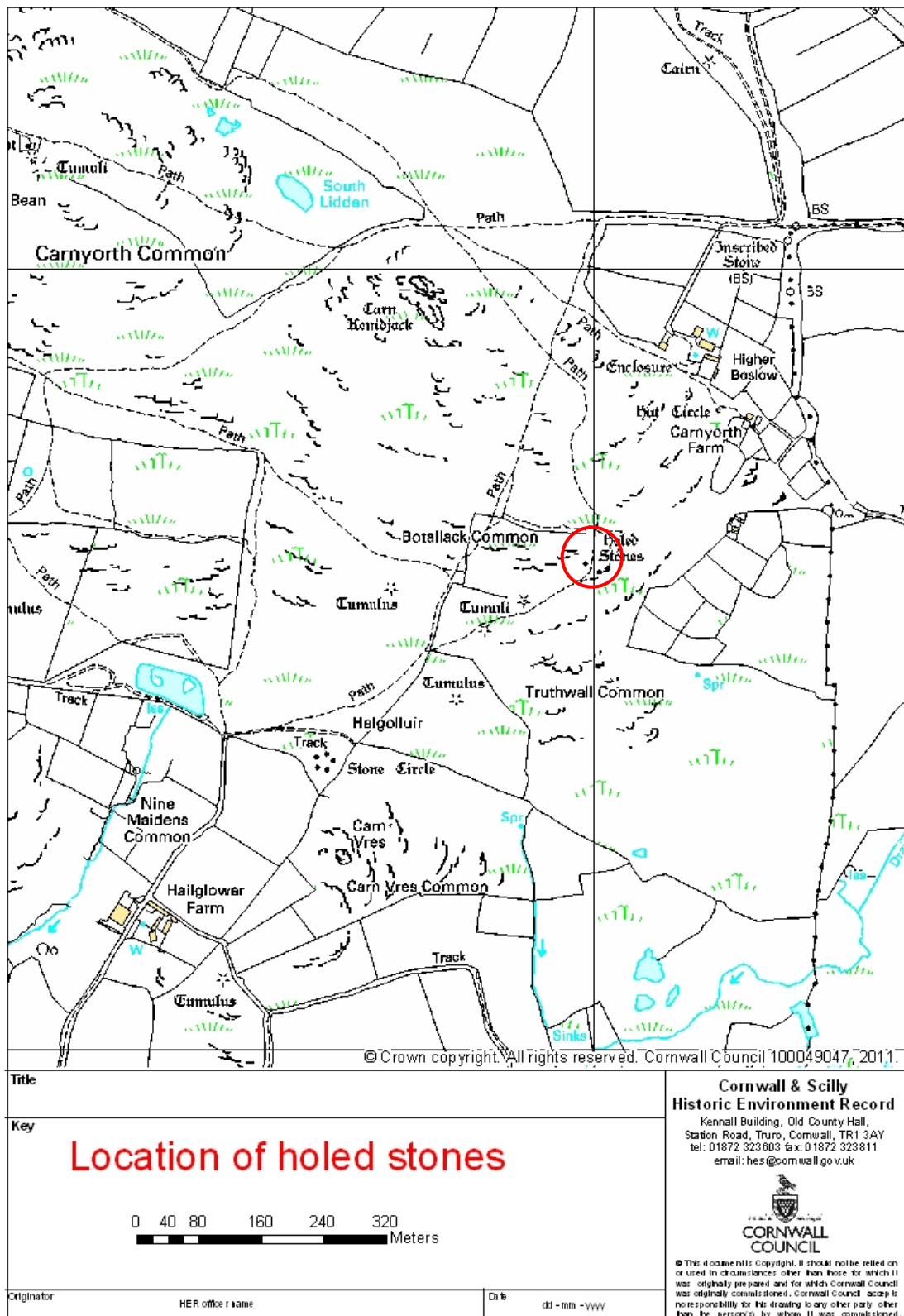


Fig 2 The holed stones and their wider setting on downland south of Carn Kenidjack. To the south-west and west are stone circles and barrows, while to the north-west, carn Bean is crowned by two barrows (and a communications mast). Carn Kenidjack to the north-north-west may be the site of an early prehistoric tor cairn. A prehistoric field system and hut circles lie to the west

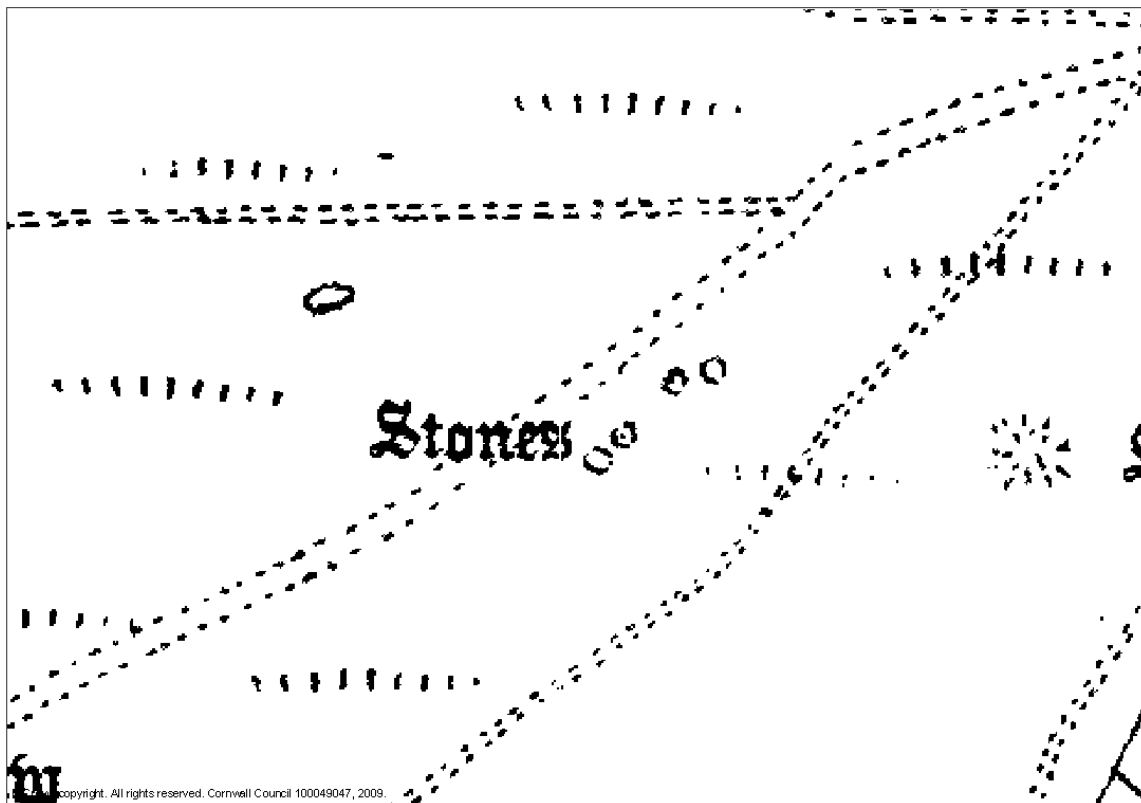
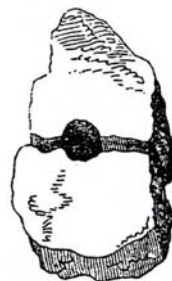


Fig 3 First Edition of the Ordnance Survey 25 Inch Map, c1880



Broken Holed Stone near the Tregaseal Ciroles.

Fig 4 Broken holed stone, possibly (but not certainly) identical with that described in this report, illustrated by Blight (1864)



Fig 5 Thumbnail sketch of the four main stones, by Charles Henderson.



Fig 6 A photo of the holed stone taken by Cheryl Straffon between 1986 and 1992. An illustration by Cooke (1996, 167) shows the stone at a similar angle

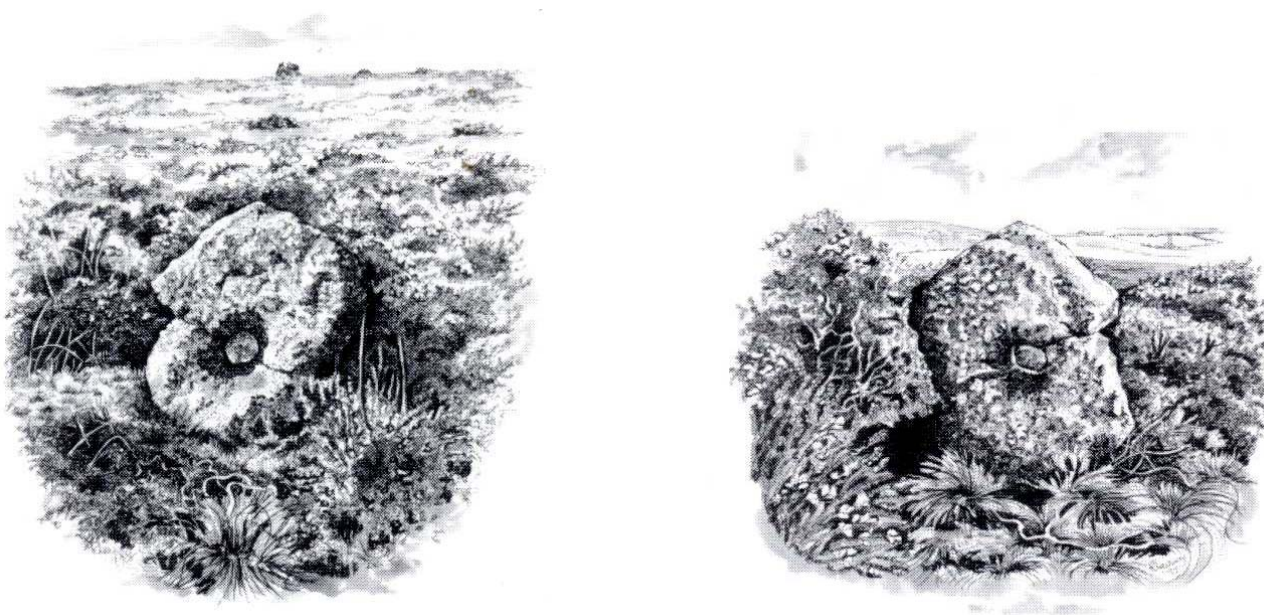


Fig 7 The holed stone from both sides, illustrated by Lewsey and Payne (1999)



Fig 8 The holed stone in 2002 (English Heritage Field Monument Warden's photo)



Fig 9 The stone in 2007 (Copyright [Jim Champion](#) and licensed for reuse under this [Creative Commons Licence](http://www.geograph.org.uk/photo/526044) <http://www.geograph.org.uk/photo/526044>)



Fig 10 The holed stone in 2004, after a fire on the common. Above: with one of the stones in the main group in the foreground. Below: with the stone's position on the edge of a small leat clearly seen (English Heritage Field Monument Warden's photos)



Fig 11 The holed stone in 2010, after the two pieces had fallen apart: the cement which had held the stone together for nearly 30 years can be seen adhering to the broken face

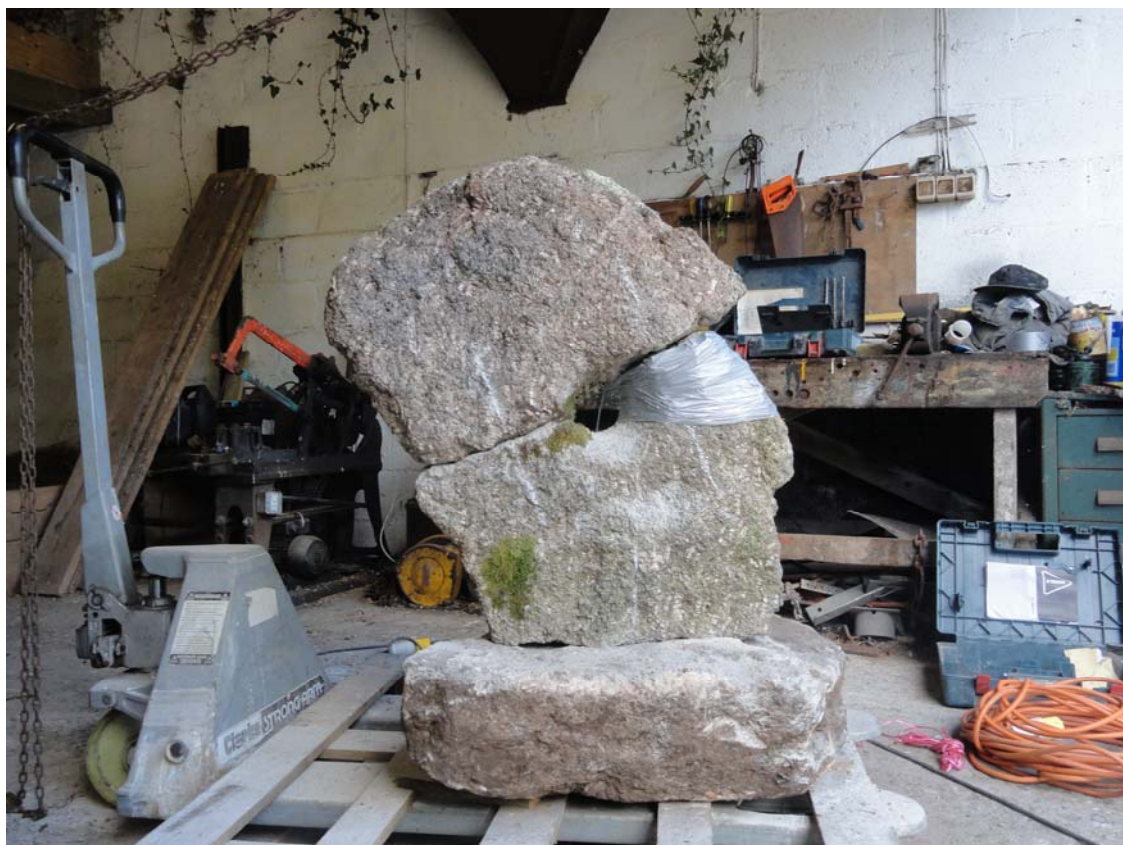


Fig 12 The holed stone in the workshop. The positions (but not the actual length) of the three dowel holes and internal pins are indicated with chalk lines on the stone



Fig 13 Installing the base-stone



Fig 14 The first trial assembly of the stones out on site



Fig 15 The positions of the dowel holes in the broken faces of the stone: above, the two holes in each segment of the upper half, and below, the single hole for the dowel which holds the stone to its base



Fig 16 Final assembly begins, as the bottom half of the stone is lowered onto the stainless steel dowel, which is held in place in the base-stone with polyester stone resin



Fig 17 Supported by a pulley attached to the digger's bucket, the upper half of the stone, with stainless steel dowels resined in place, is lowered onto the bottom half of the holed stone



Fig 18 Mortaring the joint between the base and the holed stone. The position of the internal dowels, indicated with chalk marks, can be clearly seen in this picture



Fig 19 The restored stone, in its setting



Fig 20 The restored holed stone