

The Trippet Stones, Blisland, Cornwall

Erosion repair



Historic Environment Service (Projects)

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Cornwall
Erosion repair**

James Gossip

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Historic Environment Service, Environment and Heritage,
Cornwall County Council
Kennall Building, Old County Hall, Station Road, Truro, Cornwall, TR1 3AY
tel (01872) 323603 fax (01872) 323811 E-mail hes@cornwall.gov.uk
www.cornwall.gov.uk

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Materials were kindly supplied by IMERYS, from their Stannon Works.

We are grateful to the owner of the circle, Mr Adrian Mansfield, for permission to carry out the work, and for his assistance in re-erecting the fallen stone and also to the Blisland Commoners for their support. David Hazlehurst of English Nature gave consent for the work, because the monument lies within a Site of Special Scientific Interest.

Cover illustration

Re-erection of the fallen stone by Graham Lawrence and Adrian Mansfield (driving the JCB)

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Summary

The Trippet Stones are the remains of an impressive stone circle, standing on the flat, lonely and windswept moorland of Manor Common in Blisland. The monument is a Scheduled Monument, Cornwall number 126 and is number 1928 in Cornwall County Council's Historic Environment Record; it is located at SX 1312 7501. Erosion around the base of the stones has been a problem for some time mainly as a result of ground disturbance by animals rubbing themselves against the stones. A programme of repair began with the repair of two of the stones in 1999. In April 2003, two further stone holes were repaired by infilling with stones and rab and turfing over. This document reports on the repair of a further three stones in 2006, including the re-erection of a recumbent stone, thought to have fallen at least twenty five years ago. Prior to filling, the eroded holes were examined for archaeological features. Cleaning of the eroded area of the stone that was re-erected (once the stone had been removed) revealed the original socket pit for the upright stone. In the base of this were several *in situ* packing stones. Only modern artefacts (a coin and bottle glass) were recovered from the eroded hollows.

Introduction

1.1 Project background

The stone circle known as The Trippet Stones is set on the open, flat moorland of Manor Common in Blisland parish (Fig 1). Although as many as twenty-six or twenty-seven stones may once have stood in the ring, only twelve now survive (Fig 2). Four of these were recumbent prior to this repair work and eight standing. The stone re-erected as part of this work is thought to have fallen about twenty five years ago. Two of the standing stones lean at an angle of about 45 degrees to the ground. This report describes work undertaken in October 2006 to repair erosion around the base of two of the stones in the circle.

1.1.1 Condition of the monument

A marked feature of the circle is the erosion around the base of each of the stones: a problem resulting from a combination of two factors: the soft damp peaty ground and stock (cattle, sheep, ponies) rubbing against the stones. The eroded holes are up to 5 metres across and 0.6 metres deep. Their large size undoubtedly explains why two of the stones are leaning and others have fallen. In winter, the hollows become filled with a pool of water; in summer, the water drains and dries out, to leave a muddy, bare hollow.

1.1.2 Recent management work

In 1999, the two leaning stones were stabilised by filling their eroded holes with sand, rab and granite and then earthing and turfing over (Preston-Jones 2000). A further two stones had their erosion repaired in 2003 (Preston-Jones 2003). Seven years since the first repair works there has been a little erosion to the new turf as animals have continued to rub against the stones (Fig 5) but on the whole, this is minimal compared to the previous damage; while beneath the ground is a robust, well-drained medium rather than soft, easily-eroded turf. Moreover the improvement to the appearance of the monument is enormous.

2 Aims and Methods

The summarised aims of the project were to:

- Repair three eroded hollows;
- Re-erect one fallen stone;
- By including activities for nearby schools and communities, to give local people an understanding of the heritage of their area and an involvement in its preservation.

In view of the success of the previous work it was considered worth returning to carry out a further phase of erosion repair to the hollows at the base of three more stones and the re-erection of the recumbent stone fallen twenty five years ago. The work was accompanied by community activities involving the Young Archaeologists Club (YAC), local schools on Bodmin Moor (Blisland and St Breward) and Truro College (Fig 8). Members of the public were also invited to see the work taking place. These activities were organised by Tony Blackman, a retired headteacher who runs YAC in Cornwall.

The resetting of this stone has realised the original aims of the restoration work and has radically improved the appearance of the circle as a monument in the landscape. Blisland Common has recently gone into a Countryside Stewardship agreement, with the result that reduced stocking rates on the common have slowed down the process of erosion around the stones.

2.1 Re-erection of the fallen stone

2.1.1 Aims of the archaeological recording

Re-erection of the recumbent stone was preceded by archaeological recording, the purpose of this being:

- to define the original socket of the stone, so that the stone could be correctly re-erected;
- to establish whether, in the eroded hollow surrounding the stone there was likely to be any stratigraphy surviving around and/or under the stone;
- to sample any *undisturbed* deposits in the stone socket for environmental and dating material;
- to identify and record, but not to excavate, any other features that may survive within the eroded hollow.

2.1.2 Specification for archaeological recording

Prior to re-erecting the fallen stone:

1. The stone, lying within its eroded hollow, was lifted and set aside before any excavation commenced;
2. The area of the eroded hollow was to be examined only;
3. The edges of the hollow were cut vertical, in order to facilitate examination and recording of sections (and help in the restoration process);
4. Any turf and recently accumulated silts and mud were removed from the eroded hollow;

5. The base of the hollow was cleaned by trowel to locate the stone's socket and any other features;
6. Features visible in the base of the eroded hollow were planned at a scale of 1:20;
7. The fill of the stone socket was half sectioned to establish whether any contexts were sealed and therefore worth sampling for environmental evidence or for dating material. This section was drawn at a scale of 1:10;
8. The original socket was subsequently excavated in its entirety and recorded in plan and with written notes;
9. Sealed deposits were bulk sampled. A 10 litre bulk sample was taken from the main fill and smaller sample taken from a sealed deposit beneath packing stones.

In addition, prior to the infilling of the remaining two hollows these were cleaned and inspected for any visible archaeological features or artefacts.

3 Archaeological recording

3.1 Results of the archaeological recording

3.1.1 Monitoring the erosion

The size of all the eroded hollows was measured along the two horizontal axes of each stone. No significant difference in the size of the hollows was noted from that recorded in the plan of 1998.

3.1.2 Cleaning the eroded hollows

Prior to infilling, all loose material - mud, silt, rooty topsoil, and turf - was cleared from the bottom of the hollows, down to a firmer undisturbed level, and the sides of the hollows were cut vertical. This process was carefully monitored so that any finds or features revealed could be recorded, and was carried out by members of the Young Archaeologists Club (Fig 3).

Although no finds of archaeological significance were recovered from any of the hollows the presence of broken beer-bottle glass and a US cent dated 1994 (from the hollow around the recumbent stone) is evidence of the continuing importance of the site as an international visitor attraction!

3.1.3 Stone 19: features recorded in the hollow (Figs 9 and 14)

Cleaning of the hollow to clean rab revealed an oval pit representing the original socket for the upright stone. The feature was located close to the northern edge of the hollow and was half-sectioned revealing a sequence of deposits.

Contexts are summarised below:

[1] – concave oval cut through natural subsoil ('rab' or 'growan') with a steep southern edge and a more gentle concave northern edge (Fig 9). The cut measured 1m long (east-west axis) and 0.8m wide (north-south axis) and was a maximum of 0.26m deep from the top of its cut through the rab (0.75m below ground surface). Large granite packing stones had been pushed into the southern and eastern edges of the cut.

(2) – primary fill comprising dark brown, compact peaty silt below (3), partially waterlogged and containing small pieces of eroded granite: 0.06m thick.

(3) – very similar composition to (2) but with fewer stones, apparently an accumulated silt as a result of erosion from the northern side of the feature, sealing (2). This is likely to have occurred when the stone had started leaning towards the south: 0.12m thick.

(4) – a thin band (0.05m thick) of dark grey peaty silt lining the southern edge of the cut [1], above packing stones (9), below (5).

(5) – dark grey silty peaty soil comprising the majority and latest fill of the feature above (3) and (4), 0.22m thick. Sample <1>.

(6) - flat granite stone lying on the rab immediately to the south-east of the stone socket [1]. Measuring approximately 0.8m long and 0.7m wide. Possibly associated with the original erection of the stone.

(7) – bank of in situ peat left in place just to the south of socket [1], accumulated beneath recumbent stone.

(8) – natural subsoil, comprising orange/brown rab/growan.

(9) – granite and quartz packing stones built into the side of the base of cut [1], apparently undisturbed on the southern and eastern sides of the pit. The tops of the stones occur at a depth of 0.1m below the surface of the rab (ie the top of the cut).

(10) – compact, dark grey or black peaty silt against eastern edge of cut [1], sealed behind packing stones (9). A small sample <2> was taken of this material.

[11] – possible small truncated posthole 0.8m to the south-west of [1], cut into the rab. Measures 0.10m deep and 0.30m in diameter, but is more likely to be a result of root disturbance.

(12) – dark grey peaty silt fill of [11].

3.1.4 Photography

A full photographic record was made of the site as a whole and of the three stones while undergoing the conservation work. Digital photographs were taken of the site before and after conservation work, and of work in progress, to record the procedures and people involved.

3.1.5 Discussion

The oval cut [1] represents the original socket-pit excavated for the stone at the time the stone circle was constructed. The north side of the cut shows disturbance by the movement of the stone. Silts have accumulated in the socket around the stone, progressively filling the void as the leaning stone made more space available. There is no evidence for repair or maintenance, and it appears as though the packing stones are also original to the construction. Others may have been present on the north side of the stone, but were disturbed by the leaning stone prior to its final collapse.

4 The conservation work

The conservation work took place over six days in the week 15th – 20th October 2006. The initial clearance of the eroded hollows was carried out by members of YAC and subsequent work was carried out by Gareth Cann and John Cripps, North Cornwall District Council's Coast and Countryside Service under the direction of David Attwell, assisted by the Tavistock Taskforce for Environmental Conservation led by Pete Dell. The HES staff member carried out the archaeological recording during the repair work. On this

occasion, the eroded holes around stones 8, 11 and 19 were tackled (Fig 2). The recumbent stone 19 was re-erected.

4.1 Method of erosion repair (Figs 3 – 7, 13)

The conservation work followed exactly the same method as that used successfully in 1999 and 2003 (Preston-Jones 2000 and 2003) shown in Fig 13:

1. Silt and mud was cleared from the bottom of the hollows, to the firm subsoil, to provide a solid base to build up from.
 2. The edges of the hollows were cut back to vertical, to form a solid edge up against which filling materials could be firmly wedged. The collar of uneroded ground around the base of the stones was disturbed as little as possible, in order to maintain stability.
 3. A layer of white sand was put in the base of the hollows, to provide an archaeologically distinct layer.
 4. A thin layer of light orange-brown, clean rab (growan) was spread over the top of the white sand, to bed the next layer (the stones) in.
 5. The hole was then filled with blocks of (mostly) weathered granite, wedged as closely together as possible, jig-saw fashion, generally to within 10 cm of the ground surface. Every effort was made to ensure that these blocks were kept below ground surface level, to prevent them from being exposed too quickly, should the repair work subsequently be worn away.
 6. The gaps between the stones were filled with rab (growan), well rammed in.
 7. A layer of rab (growan) was spread over the stones, and thoroughly compacted. This was brought up approximately to ground level at the edge of the hole, but a bit higher at the centre, so as to form a slightly domed surface which would drain surface water away from the stone.
 8. A 10cm layer of topsoil and horse dung (the latter collected locally) was spread over the rab, the purpose of the dung being to enrich the soil and help the final turf layer to grow.
 9. Finally, the whole of the infilled hollow was turfed over, using turves on average 15cm thick. Care was taken in laying the turves, to ensure a good, solid surface which would 'take' quickly and survive scuffing and kicking by animals and visitors. Where possible turves used were:
 - As large as it was possible to man-handle.
 - Well beaten down to ensure good contact with the surface below.
 - Levelled with earth where necessary, again to ensure good contact and no voids.
- Joins between the turves were filled with earth if necessary or had a layer of fine earth sprinkled over, to help the turves to 'knit' together as soon as growth recommenced. The final surface was domed by 20 to 30cm above the level of the surrounding ground, and the edge of the re-turfed area blended smoothly with the surrounding ground.
10. As a final protection, gorse cut from the surrounding down was tied around the stones to prevent stock from trampling on the repaired area for as long as possible, and thereby to give the turf a chance to consolidate.

4.2 Sourcing of the materials

All the materials used - the sand, stones, rab, and turf - were obtained from Stannon China Clay pit. They were from a similar moorland environment which is part of the same Site of Special Scientific Interest (the Bodmin Moor North SSSI) and were chosen to be compatible with the ecology of Manor Common.

4.3 Re-erection of the recumbent stone

A dry-stone surround was constructed by Graham Lawrence in the sides of the original socket cut [1] in order to create a sound foundation for the stone (Fig 10). This surround was built from local granite, and although this necessitated partial destruction of the original cut, survival of the *in situ* packing stones was ensured. Clean sand was placed in the base of the cut and covered with rab, making it clear to any future excavators that there had been a previous intervention and raising the level of the stone. The stone was raised by straps attached to a JCB driven by the landowner Adrian Mansfield and lowered into the new socket, guided by Graham Lawrence and the author (Fig 11). The surrounding hollow was then repaired in the same way as the other hollows (Fig 12). The stone was set into the ground to a depth that was consistent with the other stones of the circle and where differential growth of lichens suggested this was the case.

4.4 Outreach Activities

Tony Blackman and Graham Lawrence

Key stage 2 children from Blisland and St Breward Schools attended for full days of activities. Both schools participated in the same activities.

First they visited the circle to meet James Gossip, the HES archaeologist supervising the restoration work, and were given a comprehensive insight into the work in hand. They were then challenged to make decisions on the status of the stones already standing in the circle (they were flat side inward and heavy end up). With this knowledge they had to advise James on the erection of the fallen stone. They were then challenged to move a smaller but similarly shaped stone, using ropes and rollers, and erect it in the hole provided. This proved an acceptable challenge and both schools succeeded. They visited a site nearby where it has been proposed that a stone circle exists and armed with their knowledge of stone circles were challenged, in small groups, to investigate and decide whether the stones were from an ancient circle. Opinions from both schools were evenly divided.

They then investigated a Cornish time-line and participated in activities involving a travelling museum, wheat querning, warp-weighted loom weaving and Celtic coin striking.

The foundation degree students from Truro College also attended and participated in similar activities at an advanced level.

The weather on the days reserved for the public was particularly bad but a number of hardy enthusiasts attended and on the Thursday were privileged to witness the erection of one of the fallen stones, directed by Graham Lawrence assisted by Adrian Mansfield's machinery.

Evening talks were given in Blisland and St Breward with the title the Archaeology of Northern Bodmin Moor. Investigative walks for both communities were offered and are being arranged.

5 Discussion

The repair to the base of the three stones has had a considerable impact on their appearance. In restoring the ground around them, and raising it slightly, their perceived height has been greatly reduced. The stones are no longer seen in relation to a deep muddy hole or a pool of reflective water, both of which tended to emphasise their height; now, instead, they appear firmly rooted in solid ground.

As with the work undertaken in 1999, only time will tell whether this work has been successful. However, there is a good chance that erosion will not recur too quickly, for in 2002, the Blisland Commoners, in liaison with the Department of Food and Rural Environment, set up a Countryside Stewardship Agreement for the area. In order to help protect the moorland vegetation in the area, this prescribes a much lower stocking rate than had been the case in the past. This should, in theory, also help to prevent the re-development of erosion around the stones.

6 References

- Preston-Jones, A, 2000. *The Trippet Stones Stone Circle*, Cornwall Archaeological Unit Report
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- Preston-Jones, A, 2003. *The Trippet Stones Stone Circle, Erosion Repair*, Historic Environment Service Report

7 Project archive

The CAU project number is **PR504815**

The project's documentary, photographic and drawn archive is housed at the offices of Cornwall Archaeological Unit, Cornwall County 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. Scheduled Management file 8.9610/2002-3.
2. Colour digital images archived in R:\Images\HES Images\SITES.Q-T\Trippets\Trippets erosion repair 504815
3. This report held in digital form as: G:\CAU\HE Projects\Sites\Sites T\Trippet Stones erosion repair 504815

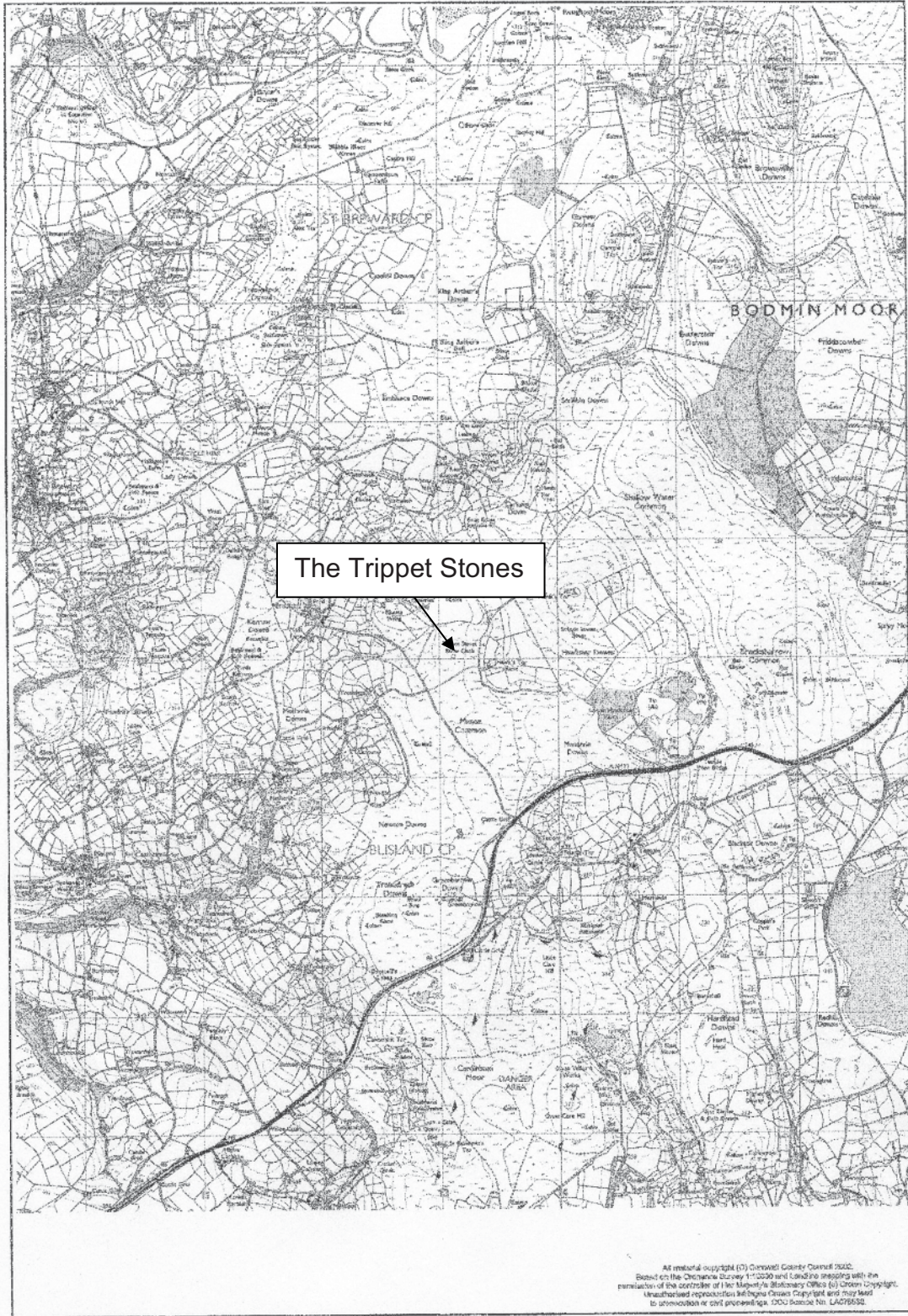


Fig 1. The location of the Trippet Stones Stone Circle

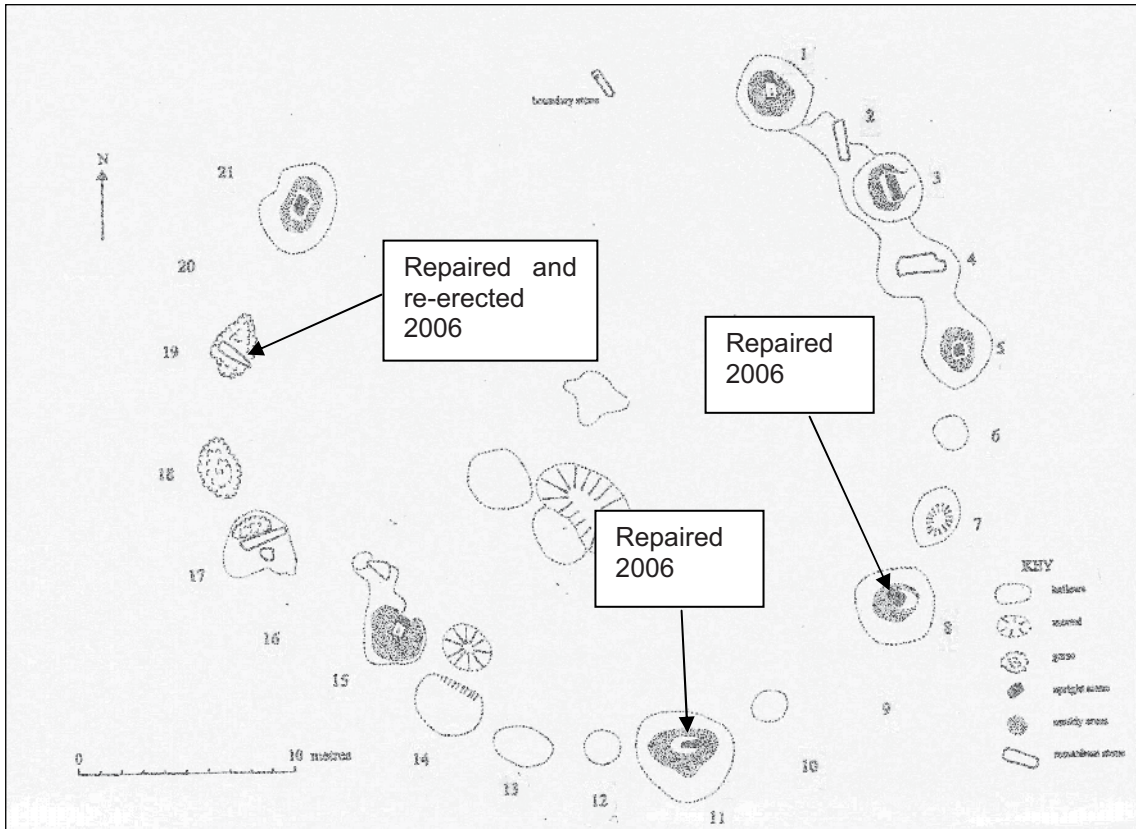


Fig 2. CAU's 1998 plan of the Trippet Stones, showing the erosion holes repaired in 2006



Fig 3. Members of the YAC clean out the eroded hollows around stone 11, prior to filling with stone.



Fig 4. The Trippet Stones Stone Circle, repairs underway.



Fig 5. A layer of earth and horse dung is spread over the rab prior to returfing around stone 8.



Fig 6. Returfing around stone 8.



Fig 7. Gorse is tied around the repaired stones to protect the freshly-laid turf from livestock.



Fig 8. St Breward School discuss the fallen stone with the author and Tony Blackman.



Fig 9. The original socket [1] for recumbent stone 19, showing in situ packing.



Fig 10. Construction of the new stone-lined socket for recumbent stone 19.



Fig 11. Re-erection of recumbent stone 19



Fig 12. Infilling around recumbent stone 19 with clean rab.

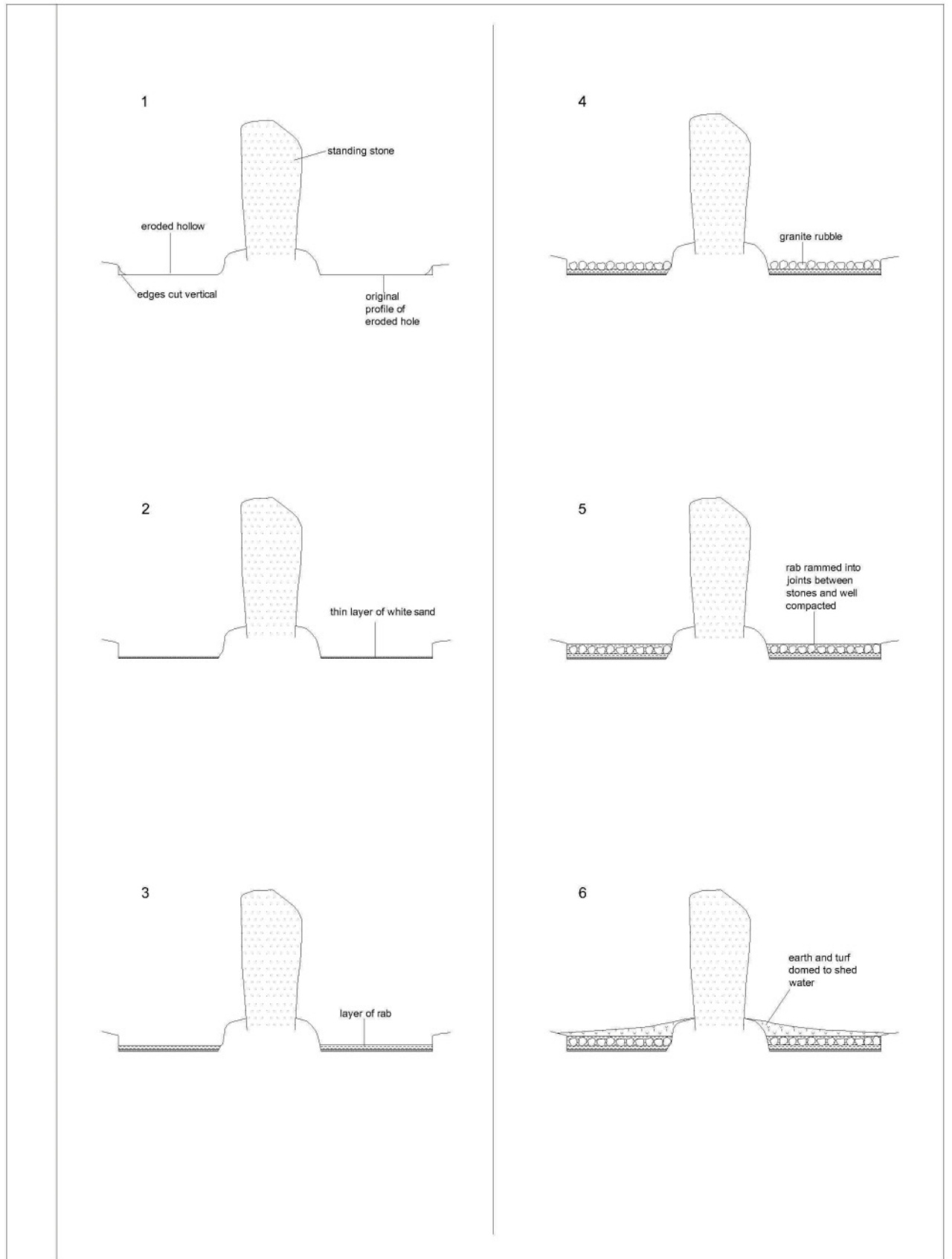


Fig 13. Method of erosion repair used at the Trippet Stones

