The Cochno stone: an archaeological investigation

Phase 1 report

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Summary

The Cochno Stone, West Dunbartonshire, is one of the most extensive and remarkable prehistoric rock-art panels in Britain. It was however buried by archaeologists in 1964 to protect it from 'vandalism' associated with visitors and encroaching urbanisation. A proposal has been developed to uncover the Stone, and laser scan it, to allow an exact replica to be created and placed in the landscape near where the original site is. In order to do this, it was felt that an initial trial excavation should take place (Phase 1) in order to assess the condition of the Stone and the nature of its burial. This work was undertaken in early September 2015. The Cochno Stone was found to be buried less deeply than claimed, and the wall surrounding it appears to have partially collapsed or been pushed over. The Stone itself was uncovered and rock-art, as well as 20th century graffiti and damage to the Stone, were recorded. Recommendations for the next phase of the project can now be made and the future plans for the Stone opened up for dialogue.

Background to the project

The Cochno Stone (aka Whitehill 1; NMRS number NS57SW 32; NGR NS 5045 7388), West Dunbartonshire, is located at the foot of the Kilpatrick Hills on the north-western edge of Glasgow, in an urban park in Faifley, a housing estate on the north side of Clydebank. It is one of up to 17 panels of rock-art in this area (Morris 1981, 123-4) but by far the most extensive. The outcrop measures some 13m by 8m, is covered in scores of cup-marks, cup-and-rings marks, spirals and other unusual motifs. The surface is undulating, sloping sharply to the south, and is a 'gritstone' or sandstone. It was buried for 'protection' from vandalism in 1964.

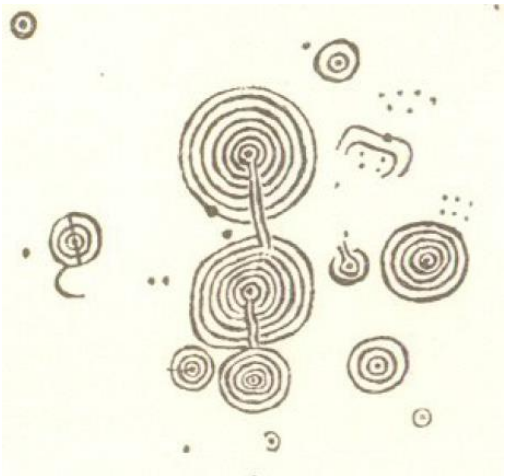


Image 1: Extract from Harvey's sketch (1889)

The Cochno Stone was first documented by the Rev James Harvey of Duntocher, who came across the incised outcrop in 1885. Harvey explored beneath the turf around the Cochno Stone and some other examples in the area to test their extent, and then published his results in volume 23 of the *Proceedings of the Society of Antiquaries of Scotland* (PSAS). He included a detailed description of a profusion of classic and unusual rock-art motifs across a large sandstone block (which he called Stone A). Harvey concluded his largely descriptive narrative with this hope:

Evidently the district in which these sculpturings have been found, lying as it does on the pleasant slopes of the Kilpatrick hills, and commanding an extensive view of Clydesdale, had been a favourite resort of these ancient rock-engravers; and it is my hope that, in the course of time, with a little labour, more of these mysterious hieroglyphics may be brought again to the light of day, and perhaps the veil that shrouds from us their meaning may be withdrawn (Harvey 1889, 137).

John Bruce produced a review of other rock-art sites in the region which was published in PSAS in 1896, and here he included a new sketch of the stone by W. A. Donnelly, this time showing (apparently) all of the stone rather than one part of it. There are some notable differences here from Harvey's depiction (above) of the triple cup-and-ring mark arrangement. Donnelly's drawing was the basis for Ronald Morris's own sketch plan (see image 7) although Morris was dismissive of its reliability based on his own observations (1981, 124).

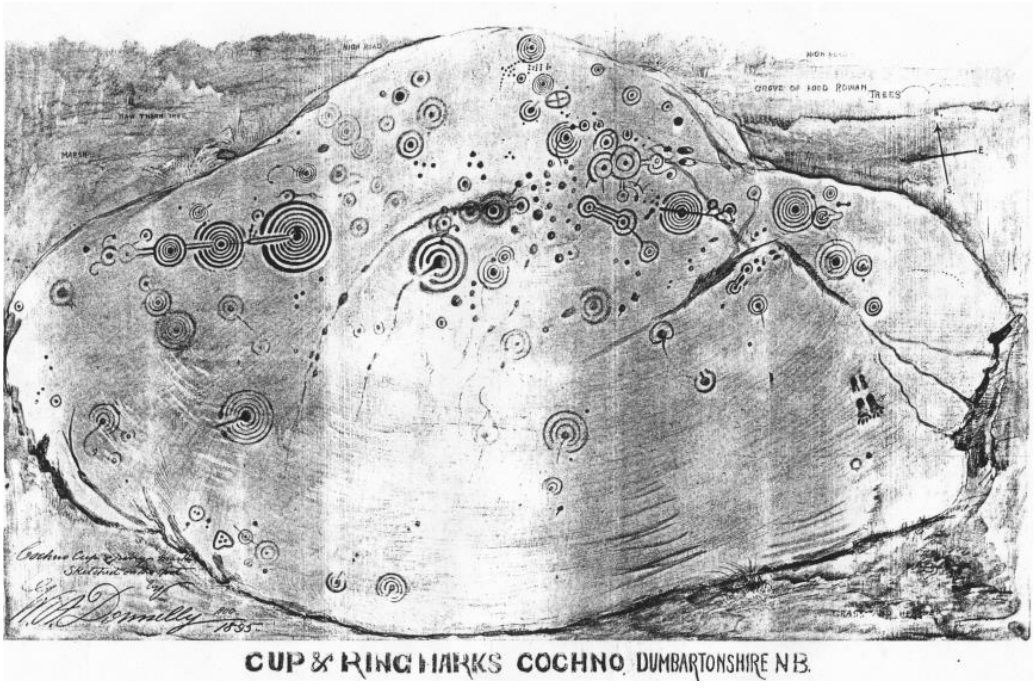


Image 2: Sketch of the Cochno Stone by W A Donnelly (dated 1895), which was reproduced in slightly different format by Bruce (1896) – image 3 - then rationalised by Morris (1981) – image 7.

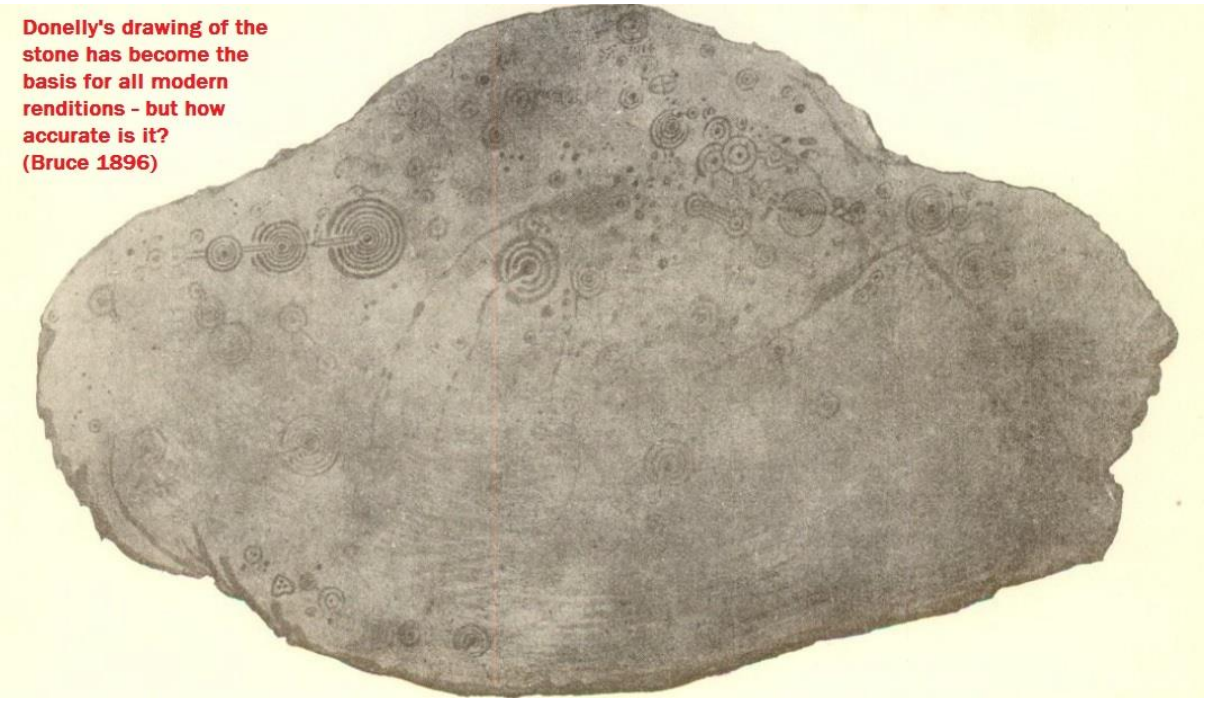


Image 3: Bruce's version of Donnelly's sketch, reduced in detail and context (Bruce 1896)

Bruce did not re-tread Harvey's account but rather focused on unusual motifs found on the Stone:

two features which had not hitherto been observed, viz., a cross within an oval border and a sculpturing resembling two pairs of footprints, which, curiously enough, show only four toes each, both being incised in the rock, casts of which can now be inspected, prepared by Mr Adam Miller, Helensburgh (Bruce 1896, 208).

Some international parallels for these symbols were found and they were considered as being contemporary with the prehistoric rock-art as opposed to modern editions. However, it is as likely that the cross and petrosomatoglyphs are much more modern additions. The fate to the casts is unknown sadly.



Image 4: The enigmatic four-toed petrosomatoglyphs, with 'old penny' for scale (Morris 1981)

Soon the Stone became something of a tourist attraction, and a wall with at least one style was constructed around it at some point to control entry. The few photos of the Stone (such as image 9) - mostly from the 1930s - show visitors walking all over the stone, usually from learned societies, and this may well have contributed to damage to the Stone which subsequently led to its burial.

The Stone became the renewed focus for archaeological attention in the mid-1930s when Ludovic Mann took an interest in it, located as it was relatively close to the remarkable Knappers prehistoric site on what is now Great Western Road (Mann 1937a, 1937b). Mann infamously 'painted' the motifs white to make them clearer, apparently for a vist of the Glasgow Archaeological Society in 1937 (Ritchie 2002, 51). Mann added his own speculative grid as well (see image 12) and it likely that other motifs he painted onto the rock were fanciful on his part. Some black and white photos of the Stone at this time suggest two colours were used.

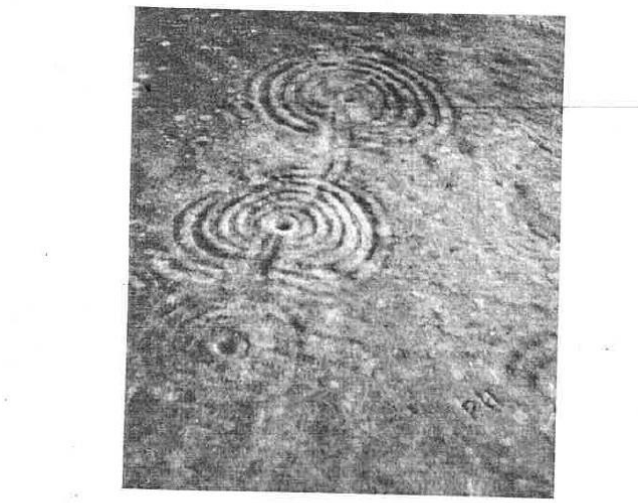


Plate 113 WHITEHILL 1. Note the elements of design.

Image 5: Note the carved P H (Morris 1981)

There was clearly a growing concern from this point onwards that the Stone was under threat, from visitors walking on the Stone, but also vandalism. A hint of this is evident in the rare image (pre 1937?) above showing a carved P H on the surface of the Cochno Stone beside the remarkable triple cup-and-ring arrangement shown in Harvey's original sketch (image 1).

And thus in 1964, the stone was buried, although the circumstances of this act remain shrouded in mystery.

Morris (1981, 124) offers this account:

In the boundary wall between the two properties, in what was once a separate walled enclosure, is a smoothish gritstone outcrop 13 m by 8 m (42 ft x 26 ft), generally sloping 10° to 20° W, but not all on one level. It was covered with about a metre of soil some years ago to prevent further vandalism and to preserve one of Scotland's finest collections of petroglyphs, and is in care of the Scottish Development Department. On it, among other markings are:

The author regrets having missed the opportunity to examine and record this site carefully before the Department of Environment very wisely covered it with a metre of earth to prevent further vandalism, which was becoming extensive. The only sketch covering nearly the whole of this important site

The vandals were later identified in the same booked as 'from near-by towns'. Other repeated this story over the years since, naming Glasgow University as the driving force behind the burial and suggesting up to 1m of soil covered the Stone. Euan MacKie (in MacKie and Davis 1988-89, 127) noted that the Stone has been "buried for some years for its own protection" although a recent email conversation with Euan suggests he was not privy to the act of burial itself. Therefore the details of the burial of the Stone, and potentially other rock-art panels in the vicinity, requires further research.

Phase 1 overview: research questions and methodology

The first phase of work was carried out in order to allow a small section of the Cochno Stone to be exposed, under conditions akin to an archaeological watching brief. This small-scale excavation was viewed as being vitally important in establishing some baseline conditions ahead of the proposed more extensive phase 2 of the project.

Research questions and objectives underlying this small-scale intervention were as follows:

1. What condition is the Cochno Stone in? Has the overlying topsoil had a detrimental effect on the stone? Could any damage be reversed or stopped?
2. How deep is the topsoil? What is the nature of this material (soil, turf, stone content)? How easy is it to remove from the surface of the stone?
3. How clearly visible are the motifs and can these be matched to previous drawings and records? How accurate are the old drawings we have?
4. How was the stone buried and what happened to the wall that has been pictured around it?

This work was undertaken over three days, 7-9th September 2015, with a small team of students from the University of Glasgow; also present were Ferdinand Saumarez Smith of Factum Arte, and Richard Salmon, stone-conservator, who was on hand to assess the condition of the stone. The process was documented by film-maker May Miles Thomas.



Image 6: The current situation of the Cochno Stone, photographed a few weeks before excavation commenced

In advance of the excavation, weed and vegetation clearing was required to allow access to the site and trench location. A small trench 4m by 1m was opened by hand on the north side of the stone, with turves, and the topsoil removed by a combination of mattocks, shovels and spades. At this end of this process, the site was re-instated through the replacement of soil and turves.

Results

A trench 4m by 1m was opened by hand on the north side of the stone, with long axis north-south. The trench ran from the northern extent of the stone (in the form of the remnants of the boundary wall). Due to the unreliable drawings of the stone that exist, the exact location of the trench in the context of the stone remains unclear.

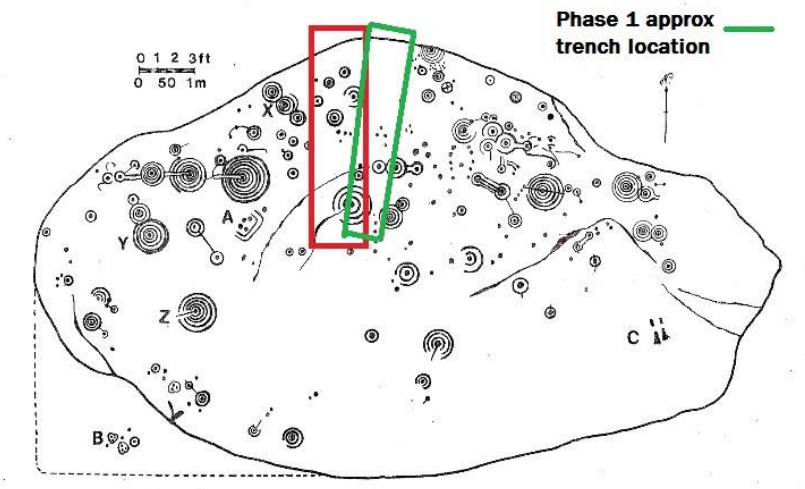


Image 7: The red box indicates the approx. location of the planned trench, and the green box may be roughly where the trench actually sat in relation to the stone, with a void in the northern half of the trench (Stone drawing is Morris 1981 version of the original Donnelly sketch).

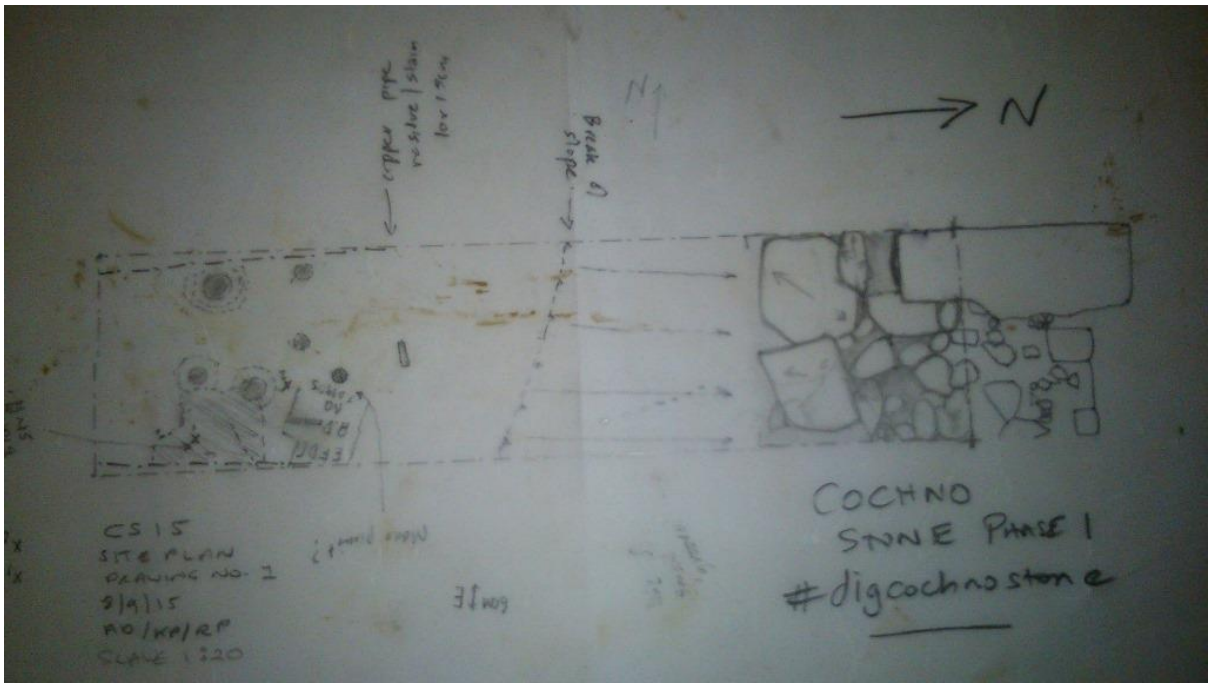


Image 8: Plan of the trench, North to the right

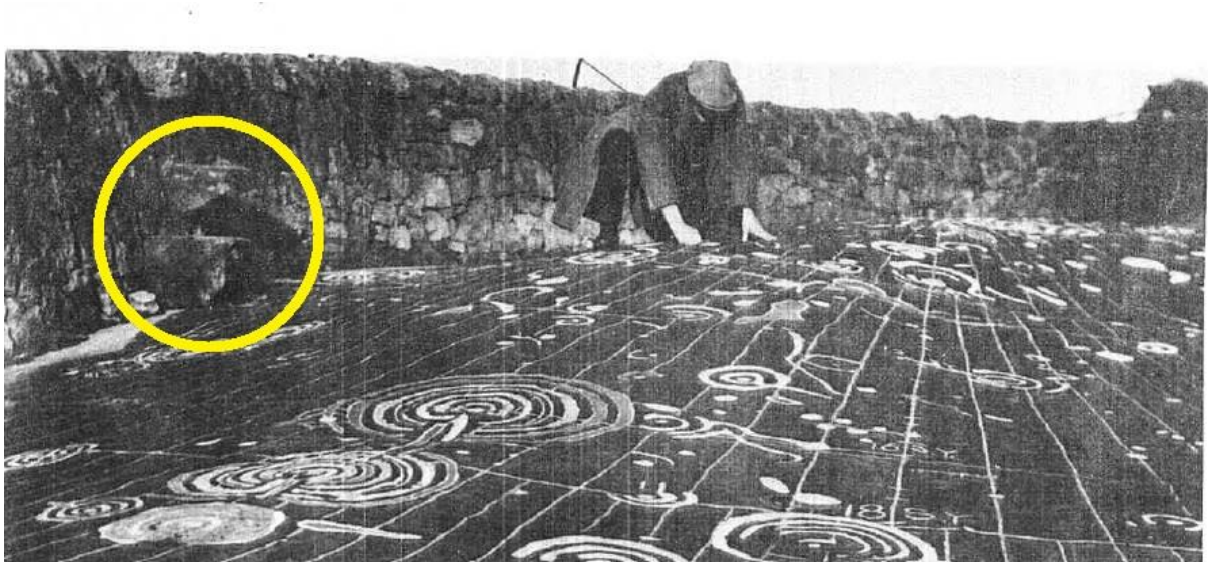


Image 9: The Stone being daubed in white 'paint' by Ludovic MacLellan Mann in the 1930s. Note the style in the wall on the left of the image (circle); this was partially revealed during our excavations, which may well help tie down the trench location more closely when more photos become available © RCAHMS



Image 10: General view of the trench from the north, with planning going on in the foreground

Topsoil

The topsoil that the stone was buried in was mid-brown clay silt with infrequent pebble inclusions, and for the most part had the character of redeposited plough soil. The occurrence of brick fragments, rusted metal nails, broken ceramic and glass in this soil layer suggests that this was transferred from a field nearby rather than derived from the immediate vicinity. The soil varied in depth from 0.5m towards the top of the stone, to 0.7m at the south end of the trench, which suggests the 1m depth occasionally quoted may only apply to the southern downhill portion of the stone. No indication was found of anything placed between the stone and the soil.



Image 11: The topsoil had a high clay content and was tough to remove

The wall

It is clear that the drystone wall which surrounded the stone is still there, albeit in a ruinous state. The top of the wall had been pushed, or fallen, over, but the lower section of the wall appears to be intact. Remnants of a stone style were also discovered, some of which was visible on the ground surface before the excavation commenced (and can be seen in image 9, above). This raises concerns that the wall was pushed onto the stone during the burying process and it may be that the stone itself has been damaged by this. We did not remove the wall rubble to assess this due to time constraints. But there did not appear to be a layer of topsoil between wall rubble and stone surface, only material that had trickled beneath.



Image 12: This 1930s photo shows the wall clearly overlying the edge of the Cochno Stone (source: The Clydebank Story, a now defunct website)



Image 13: The collapsed wall, viewed from the south, showing rubble overlying the stone. The yellow arrow indicates a worked semi-circular stone that once topped the wall.

The Cochno Stone

The stone was revealed in the afternoon of the first day of work, at varying depths beneath the surface and running beneath the wall rubble in the northern end of the trench. After the surface of the Stone was reached, heavy tools were removed from the trench and we continued to clean down to the Stone surface using trowels and then soft-bristle brushes. Water was poured on the Stone to assist cleaning and a water pump was used to remove excess water. The Cochno Stone was recorded via a sketch plan (image 8) and a photographic render produced by Factum Arte (image 14) which shows most clearly the motifs that were uncovered.

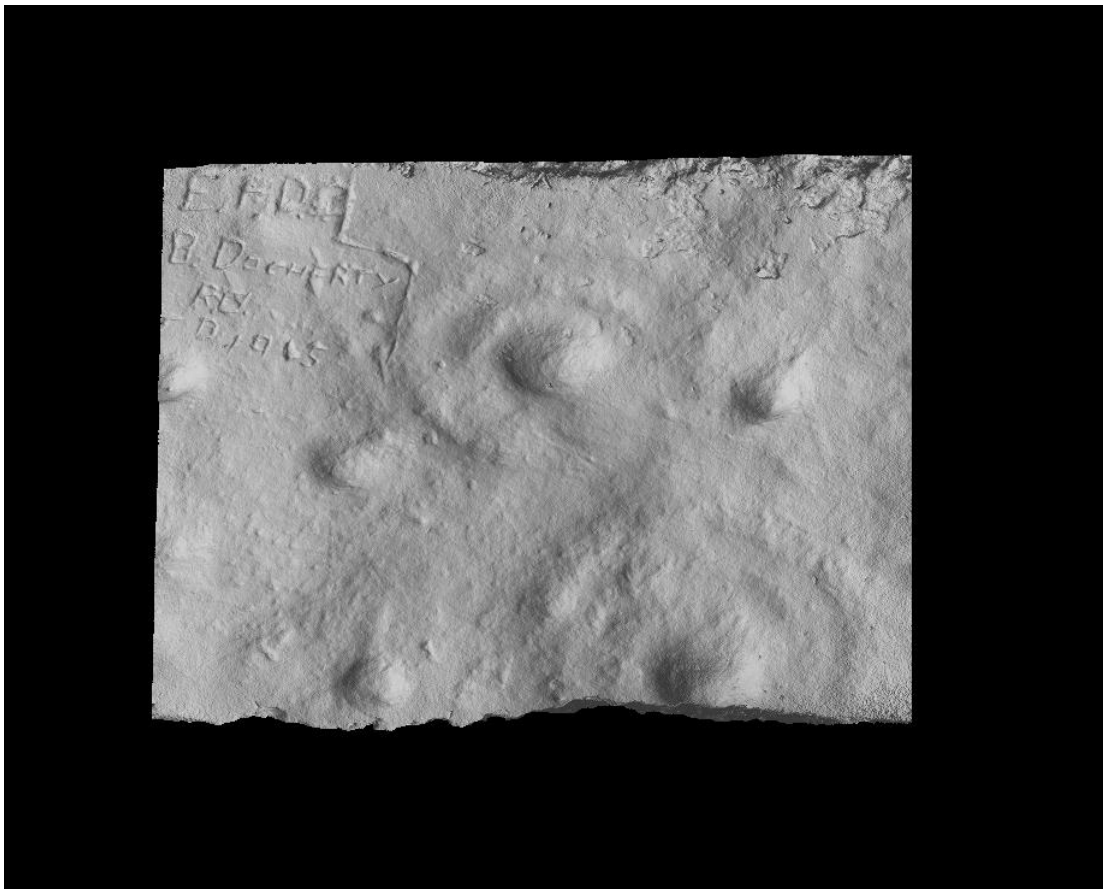


Image 14: Render of the stone generated from photography © Factum Arte

Six or seven cup-marks were evident, two of which had rings around them (one two, the other possibly three) and a further faint putative ring was identified at a third cup. The marks were all deeply incised and quite coarse in quality (cups up to 25mm in depth and 50mm in diameter), and in remarkably good condition given the burial of the stone and previous exposure for several thousand years. It was possible to determine small pecking marks in and around at least one cup-mark, suggesting the means of producing the marks may be revealed through further analysis. It may also be possible to identify phasing between one cup-mark and adjacent cup-and-ring mark which appear to overlap, as was the case at nearby Greenland (Mackie & Davis 1988-89).

A number of other surface additions were noted, all presumably related to activity in the late 19th or early 20th century:

- A short section of metal pipe was found adhered to the rock surface, leaving a stain when removed; this likely ended up on the stone during the burial process.
- White flecks identified within one cup-mark may be remnants of Mann's white paint, but no other sign of this was identified, suggesting an organic liquid was used rather than a chemical paint. These flecks were sampled for further analysis
- A small red patch, about 20mm across, was noted adhering to the surface of the stone. This had the character of a paint of some kind, and adhered closely to the stone; no sample could be collected as this was so closely bonded to the stone; this could relate to another colour of paint used on the stone by Mann, or be the remnant of some kind of vandalism.
- A large black blob was found towards the SE corner of the trench. This had the character of pitch, tar or melted plastic, and was sampled for further analysis. The irregular pattern of this deposit suggested it melted in situ or is some kind of 'splatter'. This overlay at least two cup-marks and edges of rings.
- Modern graffiti scratched into the rock. This was an extensive panel of writing , contained within a crude box with irregular boundary. The visible portion measured some 250mm by 300mm, running under the eastern baulk of the trench. The letters were deeply incised and most are apparent

  E F D B
  B DOCHERTY
  R D
  J B 1905 [1945 / 1965 also possible]



Image 15: Cup-mark containing white flecks – Mann's paint remnants?



Image 16: Writing on the stone and the edge of the black splatter / blob. 15cm ruler for scale.

During the course of the excavation, a few marks were also made on the surface of the Stone with a mattock. This highlights the softness of the stone, and once this happened, heavy tools were abandoned. One consequence of this was that we wore no shoes in the trench, and so we have to consider that even walking across the stone may have caused damage to the surface.



Image 17: Protecting the Stone before back-filling commenced.

At the end of the excavation, the stone and wall were covered in a double layer of geotex, and the trench was backfilled and re-turved by hand.

Preliminary recommendations for Phase 2

1. The Cochno Stone remains in very good condition despite being buried and so a project to uncover and record the Stone is considered to be feasible and of great value.
2. The local community should be consulted at all stages of the development of phase 2 of the project and any subsequent outcomes from the Cochno Stone project.
3. The exposure of the Cochno Stone can be done by machine, **but under very close supervision** and with various mitigating factors in place e.g. plastic or rubber blade on the bucket, machine stays out with the perimeter wall.
4. **The rock is very soft** and therefore hand excavation should avoid metal tools where at all possible – appropriate tools and brushes will need to be identified. Consultation with archaeologists who have worked on other rock-art panels will be imperative to share best practice.
5. It is likely that existing drawings of the Cochno Stone are inaccurate (what we found cannot be located on Donnelly's drawing) and therefore a full and detailed new drawing is urgently required. A suitable individual to do this should be identified.
6. Phasing of rock-art cannot be ruled out, and we may be able to establish the means by which the rock-art was carved into the rock. Methods to deal with both areas of enquiry should be developed.
7. Initial photogrammetry suggests high resolution recording techniques will reveal more about the Stone than observation with the naked eye and therefore techniques such as this and laser scanning will be of fundamental importance.
8. We must consider the possibility that the perimeter wall collapse has caused some damage to the edges of the Stone; the removal of wall rubble will add to the time and cost of the final excavation.
9. A rough sample – our trench (and the P H carving on one photo) – suggests that the Cochno Stone is heavily vandalised – and the damage to the Stone will include graffiti but also paint splatters and wear from visitors walking on the stone. The removal of chemical and other substances from the Stone (if desirable) will add to the cost of the project.
10. Ludovic Mann's 'paint' has largely disappeared; but traces may still remain and so we should not discount this from project designs. Research to connect Mann's work at Cochno with Knappers would also be of great value.
11. The story and circumstances of the burial of the Stone – and others in the park – need to be investigated as a matter of urgency to help inform the phase 2 excavation, find other rock-art panels and add to the modern story of the Stone.
12. Any work on the Stone should be accompanied by research within and beyond the local community for:
    a. Memories and stories associated with the Cochno Stone and other rock-art
    b. Pictures and other images of the Stone before its burial.

Acknowledgements

A small team of very hard working students gave up a few days of their time to work at the Cochno Stone which was very much appreciated - Liam Devlin, Alison Douglas, Taryn Gouck, Rebecca Miller, Joe Morrison, Rory Peace and Katherine Price. Helen Green visited several times with her thoughts for phase 2 and other Glasgow PhD students – Tom Davis, Jamie Barnes and Dene Wright popped in with useful suggestions. Thanks also to project partners Ferdinand Saumarez Smith and Richard Salmon for help and advice throughout the process, and May Miles Thomas was a constant source of encouragement, and documented the process. Thanks to West Dunbartonshire council for permission to carry out the work and for ensuring access to the excavation site by strimming weeds and vegetation. John Raven of Historic Scotland has offered support and advice throughout the process and ensured permission was secured to excavate this scheduled ancient monument. And thanks too for Mrs Marks, owner of the east half of the Stone, for visiting and entering discussions with us about the future of the Stone. I would also like to thank John Reppion of drawing my attention to the word petrosomatoglyphs!

Most of all, thanks to all of the local people who have kept alive memories of the Cochno Stone, many of whom of all ages came and visited our dig: this project is dedicated to all of you.

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