Rock Art at Derreennaclogh, Co Cork

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Open Air Rock Art in Ireland

uring the Neolithic and Bronze Ages a rock-carving tradition was practiced across Atlantic Europe and in Ireland. The Neolithic was the last phase of the Stone Age and started in Ireland about 6000 BC with the Bronze Age starting around 2500 BC and lasting 2000 years. There are two main types of rock carvings from this period - that carved on passage tombs (such as Newgrange, Knowth and Loughcrew), known as megalithic art and featuring motifs such as spirals, lozenges, triangles, zig-zags and circles, and that carved on boulders and outcrops in the open, known as rock art, which employed a largely different set of motifs consisting of cupmarks, cup-and-ring marks, a line running from the cup radially through the concentric ring(s), and discrete straight and curved lines sometimes forming gridlike patterns. Although the two forms are different in their motif-sets, and in their association with built structures versus open air sites, both megalithic and rock art used the same carving technology (picking or pecking done by stone tools) and it is thought the two traditions overlapped in time.

The cup-and-ring rock art tradition as practised in Ireland is found in identical or very similar formats in Scotland, Northern England, Spain and Portugal. To date, there have been no instances found in Irish rock art of representational carvings, although elements such as axes, deer and human figures are seen associated with cup-and-ring carvings in Iberia.

There are occasional examples in Ireland of cup-and-ring carvings on structures, such as wedge tombs, stone circles and standing stones, but the majority of examples are confined to boulders and outcrops unassociated with other prehistoric monuments.

The meaning of the motifs and the purpose of the carving tradition is unknown, although theories abound. The motifs have been interpreted as solar or lunar images, while the combination of circular motifs and grid patterns put many people in mind of maps. As to the purpose of the carvings; this is shrouded in mystery. Researchers have examined the location of rock art carvings in the landscape and suggested that they may have marked territorial boundaries or route-ways². Others have noted similarities in location - elevated ground, commanding vistas over the surrounding countryside, inter-visibility (i.e. one piece of rock art can be seen from another) and views to prominent landscape features such as high mountains or lakes. In common with many of the monuments of the Irish Neolithic and Bronze Ages, rock art may have been related to observing the movements of the cosmos and tracking the seasons³. Rocks from which observations were to be made (for example; the sun setting on a high peak at the winter solstice) may have been marked for that purpose, in a way that was understood by all in the community, or, only by members of a priestly class.

Dating of rock art is not an exact science, since no reliable method has been developed to assess the actual age of the carvings. Traditionally it was assigned to the Early Bronze Age (2,500 to 1,500BC) but, more recently, experts have argued for a Neolithic date (possibly to 3,300BC) for classic cup-and-ring art, although cupmarks on their own may predate cup-and-ring type art, and may also have persisted after cup-and-ring art had ceased to be practised. Motifs that would fit comfortably into the cup-and-ring corpus have been recorded at passage graves such as Loughcrew and Newgrange (although not in prominent view at the latter) and there is some evidence to suggest that stones with rock art carvings were subsequently re-used in passage graves. The only published report on an excavation conducted at an Irish rock art site confirmed activity at the site consistent with a Neolithic and Early Bronze Age date.

The Derreennaclogh Rock Art Panels

In 2012, a man walking his dog on rough ground north of Ballydehob, in West Cork, stumbled across what he believed to be unusual shapes on the surface of a rock. His suspicions that what he saw was not a natural part of the weathered surface were confirmed by a colleague who had taken an archaeology course at UCC and who alerted that department.

Shortly thereafter, the site was recorded in the National Monuments Record as CO131-069.

The Derreennaclogh site is a classic example of Irish prehistoric rock art of the type sometimes called cup-and-ring art. The authors have visited the site on numerous occasions, recording it in detail using several different techniques.

There are two large flat-topped outcrops of local old red sandstone, each containing a number of carvings. Panel 1 can be clearly seen in Fig 1, lying just beyond Panel 2. The westerly rock, Panel 2, is very weathered and it is difficult to make out the carvings. However, it contains at least two large cup-and-ring marks and a pattern of curved grooves. (Fig 1) The rock surface measures 3m by 3m. It is crisscrossed



Fig 1: Derreennaclogh Panel 2 in the foreground, with Panel 1 visible in the background

by natural fissures and by lighter but clearly visible glacial striations. This panel has been photographed in various lighting conditions but has not yet been recorded using other methods.

The second rock, Panel 1, lies 6m to the east of Panel 2 and measures 4m by 3m. It is weathered where it was exposed to the elements but

quite fresh where it had been covered by peat, allowing for detailed observation of the carvings. As with Panel 2, the rock is split and fissured in a roughly south east/north west direction, while glacial striations run across these fissures. Some of the fissures may have been incorporated into the carvings. Alternatively, the act of carving



Fig 2: Panel 1. The 'fresh' area of carving is closest. Note the difference between it and the heavily-weathered area to the left. Mount Gabriel rises in the background

may have created or widened the fissures. Fig 2 illustrates clearly the difference between the weathered and unweathered surfaces of the rock. Mount Gabriel rises in the background.

Fig 3 presents our drawing of the surface of Panel 1. The most common rock art motif is the cupmark, a picked hemispherical depression (see Fig 4 for examples), and there are up to 14 single cupmarks on the rock surface. However, some of them may be naturally occurring indentations in the rock caused by splitting and weathering. There are 15 sets of cup-and-ring marks, of which six have one ring, seven have two rings, one has three rings, one has four rings and one has eight rings. Not all the rings are completely circular; several are

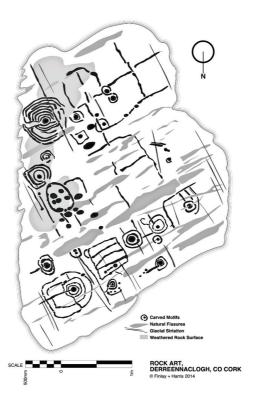


Fig 3: CAD drawing of Panel 1, including natural and carved elements

quite rough in outline. The eight-ring motif has a line from the central cupmark through the rings (more on this line below) which is formed not by pecking but by the ends of the penannular rings extending down to form two parallel channels. This method of producing a cup-andline has been noted elsewhere, e.g. on a panel from Coomasaharn, Co. Kerry, and is sometimes referred to as a keyhole motif. The cupand-ring carving at the northeast corner of the panel has four rings, although the outer two rings are not circular but rather semi-circular above the cupmark (west) and squared-off below it. A line runs through the four 'rings'. A cup-and-two-rings to the south of this motif also has a pecked line, but it does not appear to go all the way to the cupmark. Another cup-and-two-rings along the northern edge of the rock has a line running through the rings. One motif has the appearance of an intended but unfinished rosette, such as the well-known example at Derrynablaha, Co. Kerry: a partial third ring encloses (or partially encloses) four small cupmarks (Fig 8 and Fig 9). To the south of this

curious motif is a square, with three lines across it. In the space created by the northernmost interior line is a dumb-bell motif. On the eastern edge of the rock is a rough oval enclosing 5 cupmarks, with several other cupmarks lying outside the oval. This oval may be classified as a rosette, but it is quite weathered and hard to decipher exactly. On the south west surface lies a possible figure- of- eight motif. Various carved lines create semi-grid patterns on the rock surface, while others seem to run randomly between and among the other motifs.

Although we see a rich array of motifs and elements here, there is no discernible overall design to the carvings. Rather, they appear to be scattered indiscriminately over the surface of the rock. Rings are not precisely executed and lines do not run straight. The impression is of carvings that may have been done inexpertly over time and by different hands.

Several features mark this rock art panel as of particular interest. The first is the sheer size of the panel and the variety of motifs. The second is the cup-and-eight-rings: there are few other examples in Ireland of that many rings: a stone currently in the National Museum from Inchiquin, near Youghal (Co. Cork) has nine; one from Drumcarbit (Co.Donegal) has ten, as has also one from Churchtown (Co. Down); rock art from Drumirril (Co Monaghan) has seven and a panel from Rathgeran (Co. Carlow) has several motifs with seven or eight rings.

The third feature of this special rock is its state of preservation. Where the carvings were covered in peat they are as fresh as the day they were carved - or so it seems in comparison to the weather-beaten, lichen-covered, mossy rocks that are more the norm with rock art research. We have no way of knowing how soon after they were carved the peat started to creep over the rock face, but the northern section of the panel - the section recently revealed, shows few signs of active weather-damage and is free of lichens at this time. This allows us to examine in close detail the pecking technique that was used to make the carvings - a process whereby each cupmark, line or groove was



Fig 4: Close up of Panel 1 carvings showing individual pick marks

painstakingly pounded out using only stone points or hammers. (Fig 4)

Finally, to refer back to the possible purpose for which these carvings were made, we have tried to make observations at Derreennaclogh at the cardinal calendar points (solstices, equinoxes and cross-quarter days); although the weather is not always propitious. On Sept 21, 2014, we observed that the central line in the eight-ring motif is oriented directly towards the setting equinoctial sun. We have not so far been able to replicate this finding with any of the other lines or motifs at other calendrical points. (Fig 5)



Fig 5: The autumn equinox sun sets in line with the central line of the cupand-eight-ring motif on Panel 1

Rock Art in West Cork - the Context

Rock art is found throughout Ireland, with significant concentrations in West Cork, Kerry, South Leinster (Wicklow and Carlow), Donegal, Louth and the Cavan Burren.

The Derreennaclogh panels find ready counterparts within a few miles (see Map Fig 6). With the exception of the Ballybane complex, this collection of rock art panels may be termed 'classic' - that is, containing the array of cup-and-ring and linear motifs that make up the majority of elements found at rock art sites in Ireland. Within a few kilometres can be found the panels at Rathruane and Glansallagh, Cooradarrigan and Kilcoe. The oval containing five cupmarks has a parallel on the Rathruane More panel, although Rathruane More is more recognisable as a rosette.

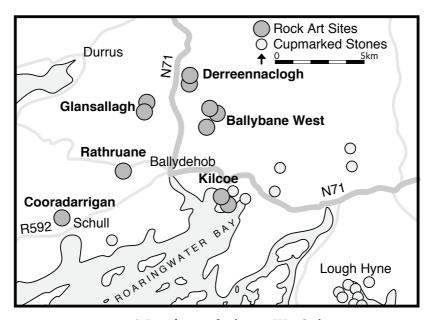


Fig 6: Distribution of rock art in West Cork

The Ballybane West complex of three panels is just over the hills to the south-east: those examples share a slightly different set of motifs consisting of large, squared-off circles, mostly with no central cupmarks.

With the exception of the Ballybane pieces, which face to Mount Kidd, all the examples cited have a view of Mount Gabriel. In fact, Mount Gabriel, probably not coincidentally, is within sight of many of the prehistoric sites in this area. Mount Gabriel was an important centre of copper mining in the Early Bronze Age.

There are also cupmarked stones at Kilbronogue, Kilcoe and elsewhere - rocks with carved cupmarks but no other motifs.

The boggy ground around the rock art panels is not in agricultural use and could be described as rough scrubland on a base of raised bog. Here and there, stones can be seen rising over the level of the peat, and old field fences can be discerned. These may be as old as the rock art or considerably newer. The area would benefit greatly by an archaeological survey using probing, and modern geophysical and aerial scanning techniques.

Recording the Rock Art

It was normal practice in the past to chalk in the carvings and trace over them using a transparent film, these tracings then being transferred to high quality paper and photographed for reproduction. Now the codes for archaeological work have changed and it is no longer acceptable to use chalk or any rubbing technique since this could damage the surface. There is a whole debate here on how to best preserve our prehistoric heritage - and no doubt there are those who would say that the Derreennaclogh stone - with its carvings in such a remarkable state of preservation - should never have been uncovered at all, or should perhaps be covered over again in a way that will ensure the retention of its markings in a pristine state, while hopefully allowing occasional access for viewing. These matters are being considered in other areas where Rock Art occurs. For example, in Portugal, Galicia (Spain) and Scandinavia, some sites have made provision for visitors, to varying degrees, and carvings are highlighted and interpreted, although not without controversy in some instances.

In 2014 we determined to develop an accurate recording method which would have minimal physical impact on the stone. The method is not entirely without intervention, as we had to walk across the carved face of the rock, and place a camera tripod on the surface.

The rock measures about 3m by 4m and it was fairly easy to establish a 50cm grid using tapes. Fortuitously, one relatively straight side of the rock lies on a north - south line (magnetic north), and our grid is therefore set to compass orientation. The stone fills 55 of these grid squares and - using a Leica camera with a Vario-Summicron 2.8 lens

- we took 55 high resolution photographs, each one centered on a grid square, and with the camera held a constant 1.5m above the flat rock surface. Back at the work station all these photos were 'stitched together' using Photoshop, and this has given us a very accurate scaled base which is the bottom layer of the drawing subsequently created. (Fig 7)

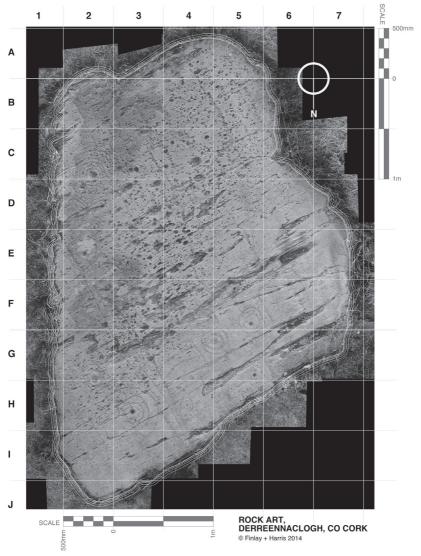
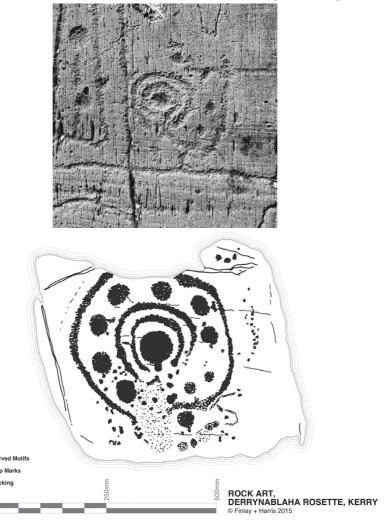


Fig 7: Composite photograph of Panel 1. This was the basis for the CAD drawing.

Sophisticated Computer Aided Design (CAD) techniques allow very accurate tracings to be made of the outlines of the picked markings that show up on the photograph. The drawing is a digital electronic file that can be reproduced physically to any size or scale, depending on the properties of the printer used. A CAD drawing can have any number of layers which can be switched on or off (or made transparent) to provide



Figs 8 and 9: The unusual 'tailed' motif on Panel 1. Comparison with the Derrynablaha rosette (Fig 9) suggests that the Derreennaclogh carving is an unfinished element that may have been intended to be a rosette

a matrix of information. On this drawing the layers so far in ascending order are:

- 1. Photograph
- 2. Text and legends
- 3. Grid and grid reference numbers
- 4. Perimeter tracing of the rock
- 5. Tracings of the natural rock striations resulting from glacial movement (this appears to give the rock a definite directional 'grain')
- 6. Tracings of the natural rock fissures
- 7. Tracings of the rock carvings

Layers 5a, 6a and 7a have been added so that the outline tracings of carvings can be shown but also 'fills' to these outlines. Every layer can be given different colourings. It would be possible, also, to separate out motifs depending on 'motif type': for example, the Archaeological records for West Cork distinguish between rock art and 'Cupmarked Stones'. Cupmarks are the simplest form of motif, and the most widely known, but as seen above, the rock at Derreennaclogh provides examples of many different motifs. A drawing layer devoted to a particular set of motifs, such as the cupmark, might be useful.

The motifs are ideally traced on a large screen, which enables the picking to be clearly seen. So far there isn't a layer that includes information on the depths of the carved motifs. This would in any case be subjective and could only be done by taking a large copy of the drawing to the rock, measuring the depths of each mark and recording this ready for transfer to the file back at the workstation. This is a future job, and will involve a more selective coding to show the extent of picking graphically, It would not, in any case, be a completely true record of what was carved, because of erosion and wear factors.

We have also recorded the carvings on Panel 1 using a technique in which multiple photographs are used to create a point cloud, leading in turn to the generation of a 3D image of the panel. 3D rendering can enable observation of faint or weathered carvings, difficult to see in natural light even under optimum conditions. In the case of Panel 1, the carvings are sufficiently clear already that no new information was gained by this technique. The second panel is so weathered that it is difficult to see anything, no matter what recording technique is used. However, the 3D rendering does give a good overall sense of what elements are there, as well as pointing to a couple that are impossible to

see with the naked eye, even in good lighting.

Photographer Ken Williams has developed another technique for recording rock art using multiple flash units to emphasise shadows within the carvings which are then recorded on photographs. This method has successfully produced some very clear results even on heavily weathered surfaces and in cases where lichen has largely obscured the original carvings.⁸ This method might work well with Panel 2 and is recommended as a future project.

There are drawbacks to our CAD-based recording technique, the first being its subjectivity. No rock surface is completely flat or smooth. There are striations, faults, pits and holes. Some of these resemble some of the carved motifs (particularly when the rock has been severely weathered), so at all times decisions have to be made as to what is and is not natural, and on where the actual edge of the carving is. At times it seems probable that the natural features of a rock influenced or informed any design intentions. No doubt some of these decisions are erroneous: it can only be said that all estimates are educated by experience. At least we now have a reasonably complete and accurate record of what is apparent on the surface of this remarkable carved rock today. The meaning of the carvings, of course, remains in the realm of debate.

Note on Visiting Rock Art Sites

Please note that the two rock art panels at Derreennaclogh are on private land close to a private dwelling and are strictly only accessible with prior permission from the landowner: please respect this. If you find rock art, please alert the National Monuments Service⁹ immediately. Do not interfere with the surface in any way (such as rubbing or chalking) or peel back the turf, since this can destroy valuable evidence

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Robert Harris is a retired architect who brings his design and drafting skills to the study of archaeology, landscape and history in West Cork. He has particular interests in folklore, canals, and art. For more, see https://roaringwaterjournal.com/

Endnotes

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