

Our Ancient Landscapes:
Prehistoric Rock Art in Ireland

ROCKART

An Chomhairle Oidhreachta
The Heritage Council





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The Heritage Council is extremely grateful to all those who provided illustrations in this publication: Clare Busher O'Sullivan, Ken Williams (Shadows and Stone), Anthony Corns of the Discovery Programme, Gary Dempsey of Digital Heritage Age, Chris Corlett and Caimin O'Brien of the Archaeological Survey of Ireland/National Monuments Service, and the Photographic Unit of the National Monuments Service, Department of Housing, Local Government and Heritage. All other photographs, unless otherwise stated, are by Clare Busher O'Sullivan.

Data on the distribution of rock art in Northern Ireland was kindly provided by the Historic Environment Division, Department for Communities NI.

The comments of Prof Muiris O'Sullivan of the School of Archaeology, UCD, and Margaret Keane of the National Monuments Service are gratefully acknowledged.

Cover: Rock Art at Kealduff Upper, County Kerry (Ken Williams).

Back cover: Re-assembled Rock Art at Knockroe, County Carlow (Ken Williams).

This page and inside back cover: This small boulder at Threewells, Co Wicklow, has six rows of small holes. A total of forty-three marks are preserved. Circular hollows such as these or cup-marks in the rock surface, either individually or in groups, are a feature of rock art (Ken Williams).

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Clare Busher O'Sullivan's interest in rock art began while completing her BA in archaeology at University College Cork. She continued her research on prehistoric rock art, focusing on the conservation of rock art in south-west Ireland and graduating with an MPhil in 2018. Since then she has presented and published her research nationally and internationally. Clare's primary passion is for the conservation and management of Irish open-air rock art.

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ISBN: 978-1-906304-55-3

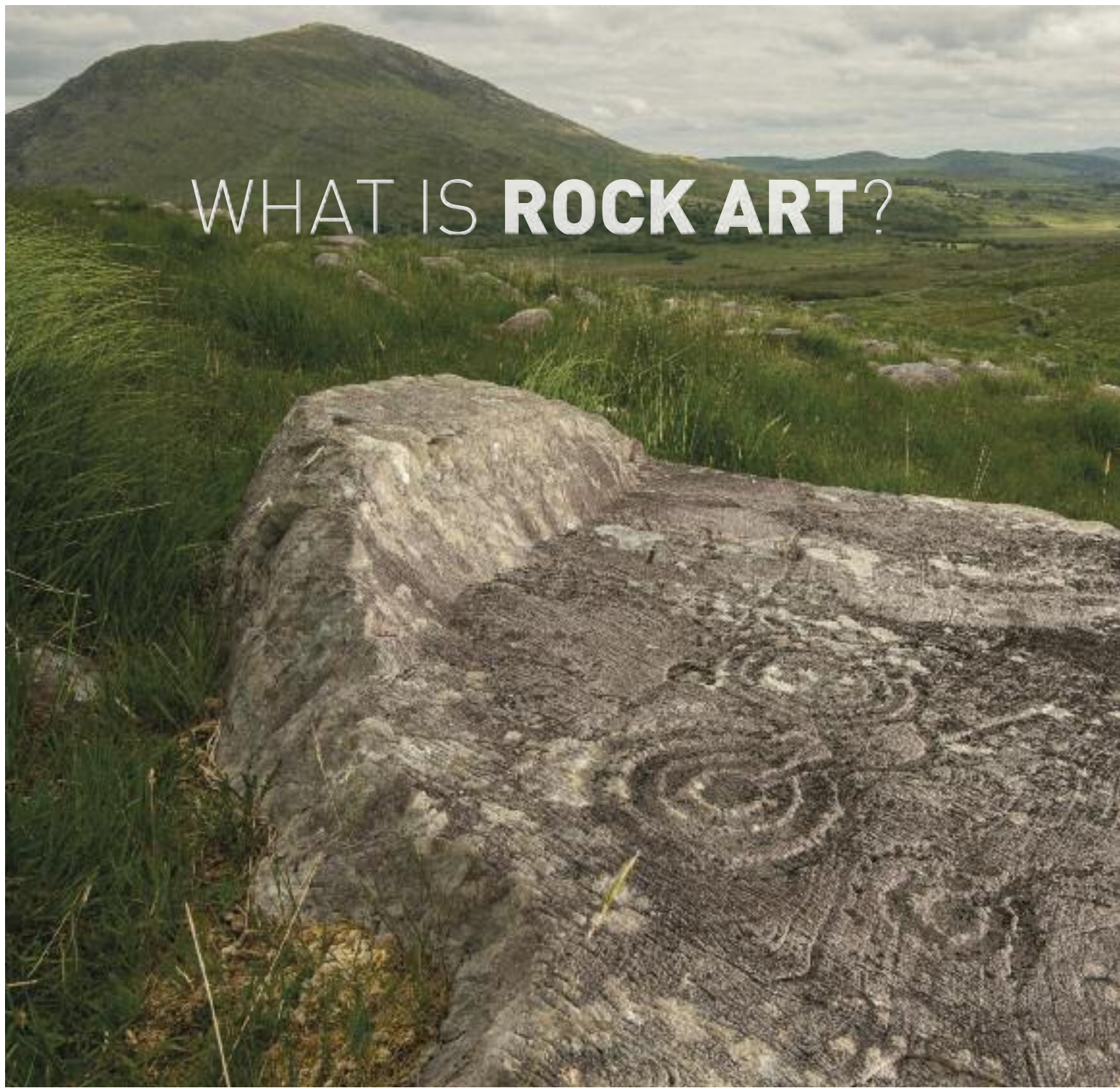


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WHAT IS **ROCK ART**?





The term rock art refers to any images carved, drawn, painted, engraved, or incised on natural rock surfaces. Rock art is found on almost every continent in various forms and from different periods. It includes the Upper Palaeolithic figurative cave paintings of southern France and northern Spain, the passage tomb art of the Neolithic in Atlantic Europe, and the many examples of Bronze Age rock art in Atlantic Europe, northern Italy and Scandinavia.

The megalithic art of Ireland's passage grave cemeteries, such as Newgrange, Knowth and Dowth in the Boyne Valley and Loughcrew, Co Meath, has dominated Irish prehistoric art in the public consciousness. However, alongside this famous megalithic art tradition, which is associated with monuments, there is a lesser known form, that of open-air Atlantic rock art. The term Atlantic rock art was popularised in the 1990s by the archaeologist Richard Bradley and refers to a carving practice widespread across Atlantic Europe. This art is found in Ireland, Scotland, England, France, Spain and Portugal, a range of approximately 1,800km.

Unlike megalithic art, rock art is typically found on boulders and outcrops. This Atlantic tradition dates to the Later Neolithic/Early Bronze Age period (circa 3000-1500BC). Instances of potential medieval rock art are also known, such as the Clonfinlough stone, Co Offaly.

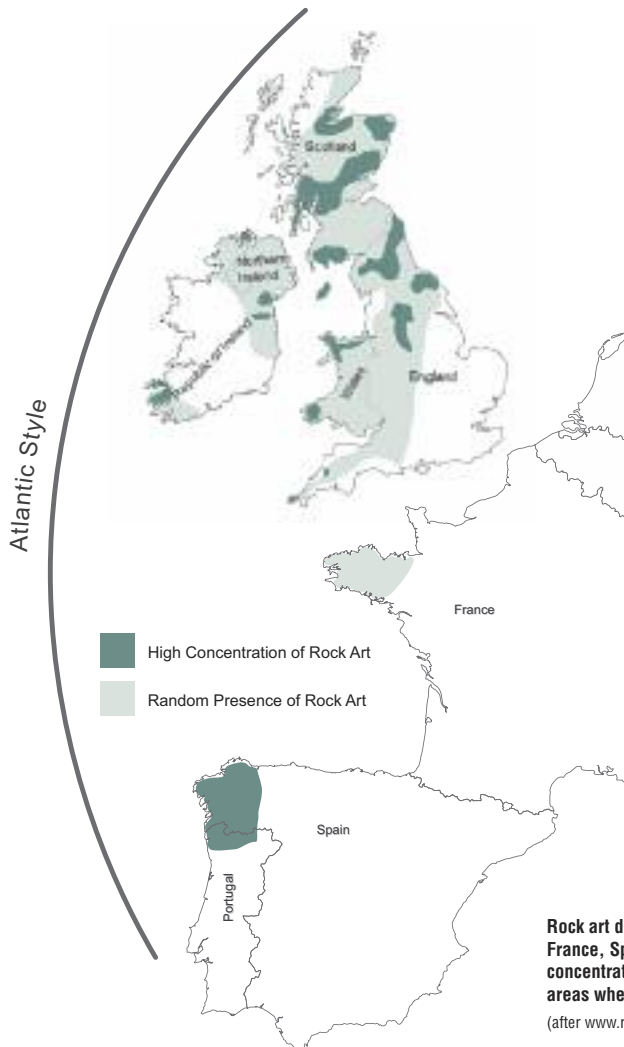
Rock art at Derrynablaha on the Iveragh peninsula, Co Kerry.

(National Monuments Service)

INTERNATIONAL ROCK ART

Globally, rock art varies between carved motifs (petroglyphs) and painted images (pictographs). In Ireland there is no evidence of the latter, which is associated primarily with Africa and Australia. Evidence of painted art work within megalithic tombs in Iberia has also been recorded. Internationally, there are similarities between different groups of pictographs, for example Kakadu National Park in Australia features several figurative carvings depicting humans, ships and handprints, while the art at Alta, Norway includes geometric motifs and figurative carvings representing humans and animals. The art at Valcamonica, Italy, ranges from depictions of animals and weaponry to humanlike beings that represent connections between the sun/moon, humanity and the underworld. The Irish material does not allow for comparisons like this, but it is equally interesting and internationally important.

While not widely recognised in Ireland, internationally there is a strong appreciation of this art form. For example, in the early 1990's the construction of a dam in the Côa Valley, Portugal, led to the discovery of art along the banks of the Côa river. In this case the location of rock art close to water sources posed a threat to its survival. After an international campaign to preserve the site the development of the dam was halted in 1995 and the Côa Valley carvings were added to the UNESCO World Heritage List in 1998 thereby granting international recognition. This World Heritage Site was extended in 2010 to include rock art in Siega Verde in Spain.

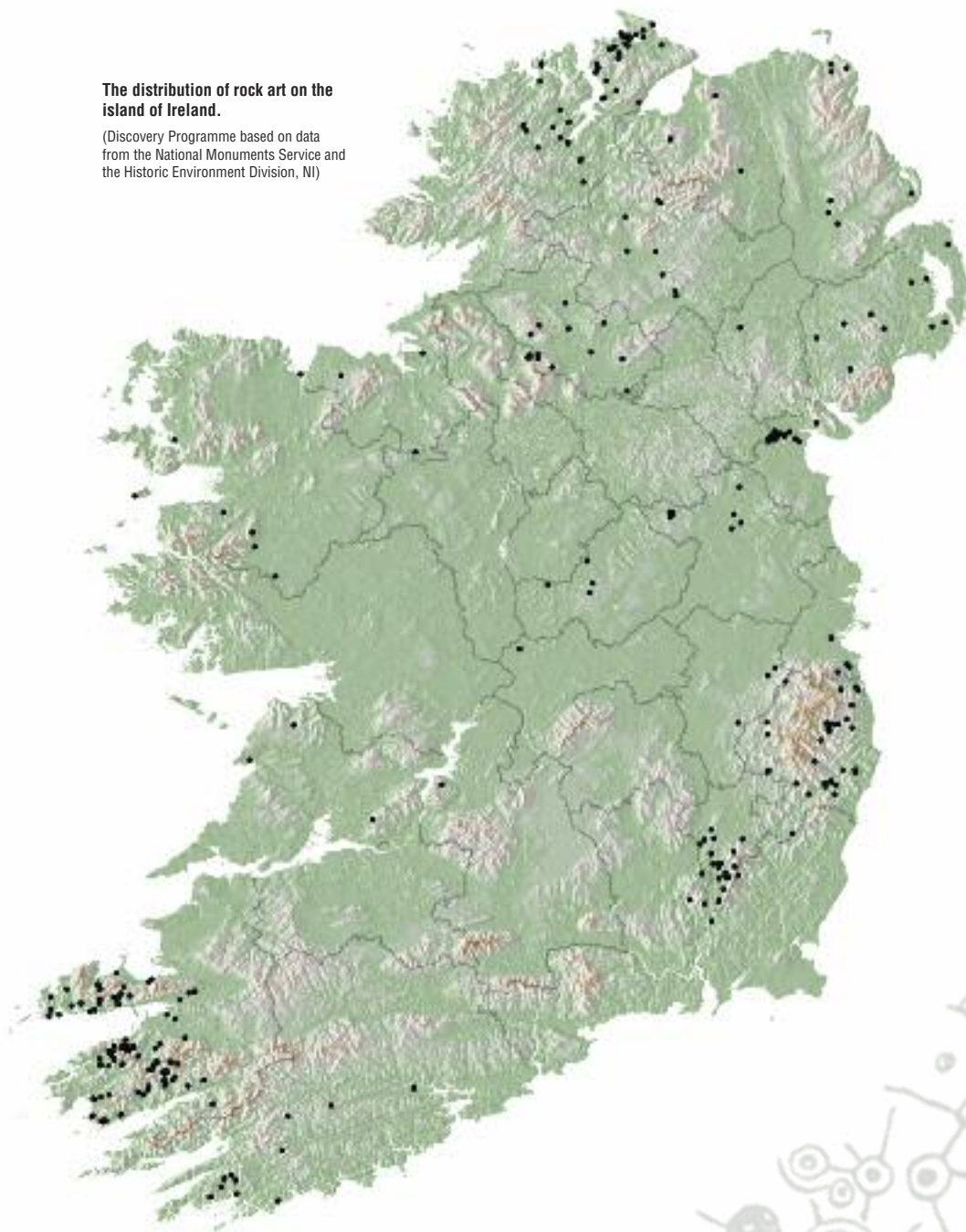


Rock art distribution and density in Ireland, Britain, France, Spain and Portugal. Dark shading shows high concentrations of carved rocks and light shading marks areas where rock art is known but sparsely distributed.

(after www.rockart.scot/)

The distribution of rock art on the island of Ireland.

(Discovery Programme based on data from the National Monuments Service and the Historic Environment Division, NI)





Cup-and-single-ring motifs from Carndonagh, Co Donegal. The stone is carved with cup-marks and cup-and-ring motifs.

(National Monuments Service)



HOW TO IDENTIFY ROCK ART?

Atlantic rock art is identified by its distribution along the North Atlantic coastline, with dense concentrations appearing in northern Spain, Portugal, Brittany, Britain and Ireland. The art is comprised of abstract geometric motifs that feature cup-marks surrounded by rings and radial grooves amongst other motifs. Typically, the motif distribution varies on each panel, from heavily decorated surfaces to singular cup-marks. The motifs form designs on the surfaces of boulders and outcrops and the carvings often exploit natural grooves and joints on the rock surface. The art is referred to in Britain and Ireland as 'cup-and-ring art', 'Galician' or 'Atlantic', terms that emphasise the strong parallels between Britain, Ireland and Galicia in north-west Spain. In Galicia, the abstract motifs are found alongside figurative carvings of animals and weaponry, however there are no Irish examples of such images.

A cup-and-multiple-ring motif with two extending radial-grooves at Kealduff Upper, Co Kerry.

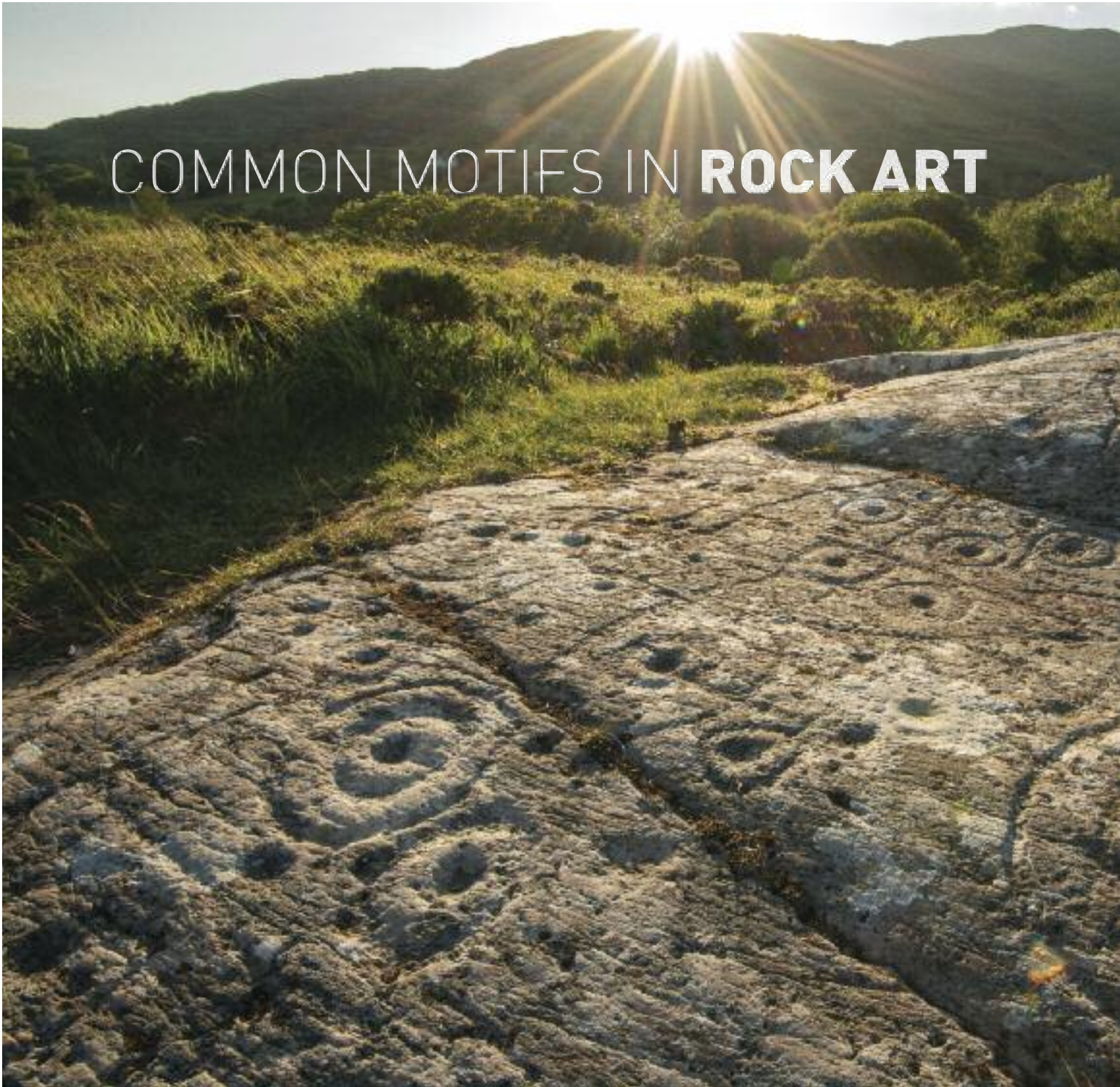


A cruciform motif exploiting the natural grooves on the rock surface at Kealduff Upper, Co Kerry.

A rock outcrop at Rathruane More, Co Cork, with cup-marks including a cup-and-ring, a cup-and-two-rings, and six cups surrounded by a ring (sometimes referred to as a rosette motif).



COMMON MOTIFS IN **ROCK ART**



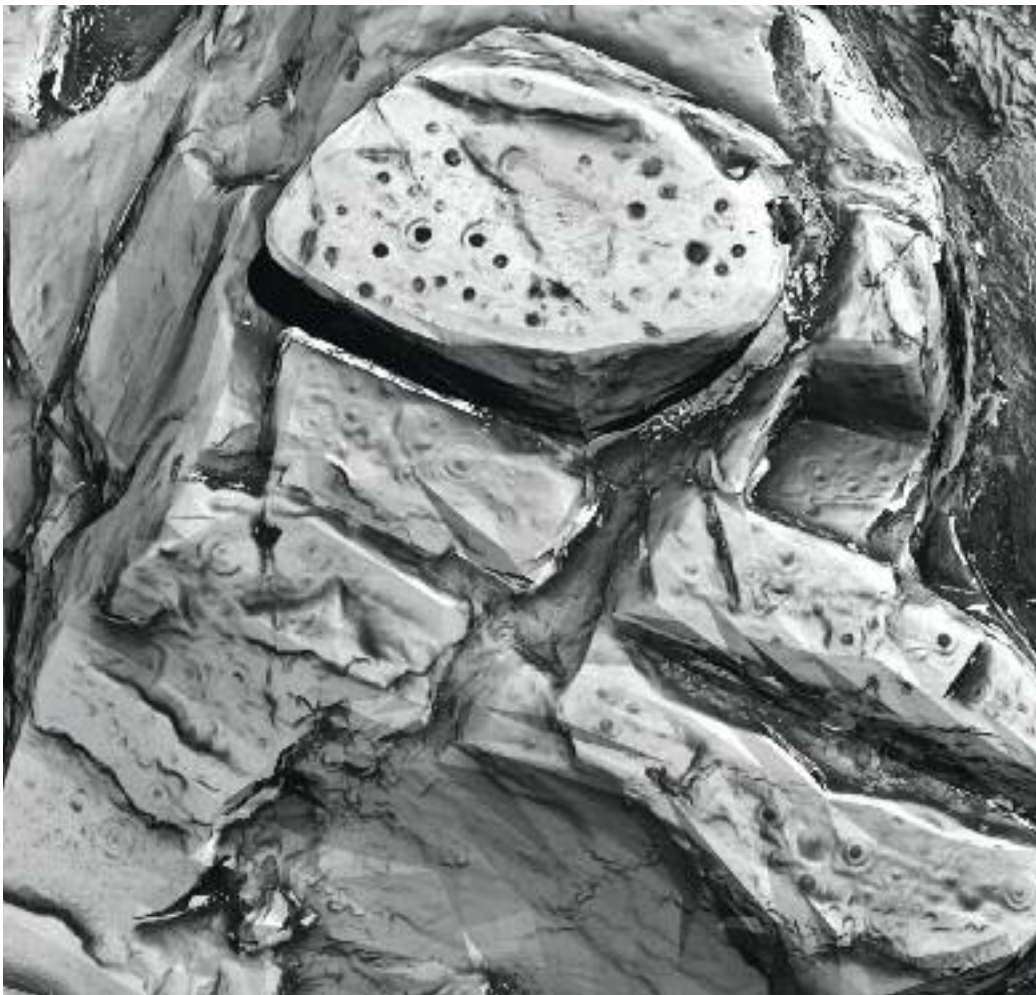


In Ireland the most common motif is the 'cup-mark', which is a circular human made depression in the rock surface. There may be cases where a natural hollow in the rock has been enlarged by human activity. The cup-mark is often surrounded by one or more concentric rings, i.e. cup-and-ring. Another common feature of 'cup-and-ring' art is the radial groove that extends from the cup-mark or the surrounding rings. The 'rosette' motif consists of a series of cup-marks sometimes surrounded by a concentric ring.



This stone outcrop at Liss, Co Kerry has a complex of cup-marks, cup-and-ring motifs and linear grooves.

(National Monuments Service)



A 3d model of the Boheh stone, Co Mayo. This rock out-crop has over 250 motifs carved on all surfaces of the stone at various levels in the form of cup-marks, cup-and-rings as well as keyhole designs.
(Digital Heritage Age)

WHAT DOES ROCK ART MEAN?

There are many theories to explain the purpose and significance of Atlantic rock art, but they are difficult to confirm due to its abstract nature. This, together with the prehistoric date, means there is very little direct context for Irish rock art. As a result, the focus of research tends to be on the setting, distribution and form of the art. Many have theorised on the purpose and significance of the art, often reflecting on the positioning of rock art within the landscape and the relationship to topographical features. The view that the placement of rock art marks boundaries and routeways within prehistoric landscapes is echoed by many researchers. Another theory suggests rock art marks places of worship and pilgrimage in prehistoric society. The proximity of rock art to water courses has prompted some researchers to suggest an association with a cult of water sources. Despite these compelling theories there is, as yet, no definitive explanation for the art.

WHERE IS ROCK ART FOUND IN IRELAND?

Rock art in Ireland occurs in clusters throughout the island in Carlow/Wicklow, Louth/Monaghan, Fermanagh and Donegal. The densest concentration is found in the Cork/Kerry region. The rock art is located in rural landscapes, often in open valleys or the foothills of mountains and almost always in close proximity to water sources.

Perhaps one of the best known examples of open-air rock art in Ireland is the Boheh stone located in the townland of Boheh, Co Mayo, from which on the 18th of April and between the 22nd and 24rd of August the sun can be seen to set on the summit of Croagh Patrick and then roll down the northern shoulder of the mountain. The Boheh stone is a national monument in state care.

In recent years archaeological surveys and receding blanket peat have revealed several previously unrecorded rock art panels throughout Ireland, most notably on the Iveragh Peninsula, Co Kerry.

The carved motifs occur on both boulders and outcrops that range in size and orientation. The rock art concentrations in the south-west are often located on what is today non-arable land. The rock art occurs in open valleys consisting of blanket peat. Throughout Ireland there is evidence or accounts of rock art panels that can no longer be located as they were removed or destroyed to facilitate farming.



The surface of the Clonfinlough stone, Co Offaly is covered with water solution holes, incised lines and several other unusual symbols such as elongated crosses. It has been suggested that some of the motifs probably date from the historic period and are possibly associated with the monastic site of Clonmacnoise. (National Monuments Service)



This decorated stone at Crannagh, Co Carlow is situated on the lower slopes of Mount Leinster. It has a small cup-mark enclosed by four rings. Nearby is a cup enclosed by a single ring, beside which is a cup enclosed by two rings. Near the centre of the stone are two further cup-marks.

(Chris Corlett)

Rock art research in Ireland began during the late-nineteenth century. In 1860 the antiquarian Charles Graves presented a paper *On A Previously Undescribed Class of Monuments* (rock art) to the Royal Irish Academy. Graves suggested it was of 'great antiquity' and he provided the first drawing of rock art from the south-west. The rock art was recorded by rubbing a rock panel covered 'by the most remarkable group of circles'.

In the early 20th century open-air art was the focus of several papers presented to the Royal Irish Academy. In 1906 Lynch presented on a panel at Caherlehillan, Co Kerry, speculating on its significance and commenting on the state of preservation. The panel to which he referred is known locally as *leac sgribhneoiread*, the inscription stone. The inscribed stone at Caherlehillan was later recorded by Professor R.A.S. Macalister who subsequently recorded several other rock art panels in the south-west, providing some of the earliest written accounts of panels accompanied by images. In the 1930s Breuil explored connections between open-air rock art and megalithic art. He regarded open-air rock art sites as related to the passage tomb art tradition. It was Eoin MacWhite writing in the 1940s who first distinguished between megalithic rock art and open-air art, dividing them into two categories. He referred to the open-air carvings as the 'Galician type' or the 'cup-and-ring carvings'. He was the first author to use the term 'Atlantic' for this type of rock art and he also provided a list of motifs found 'on natural rock surfaces or boulders'.



At Drumirill townland in Co Monaghan over half the known examples of rock art from the Louth/Monaghan area occur.

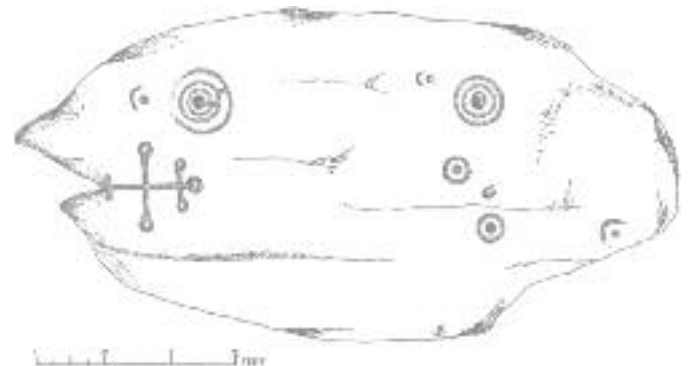
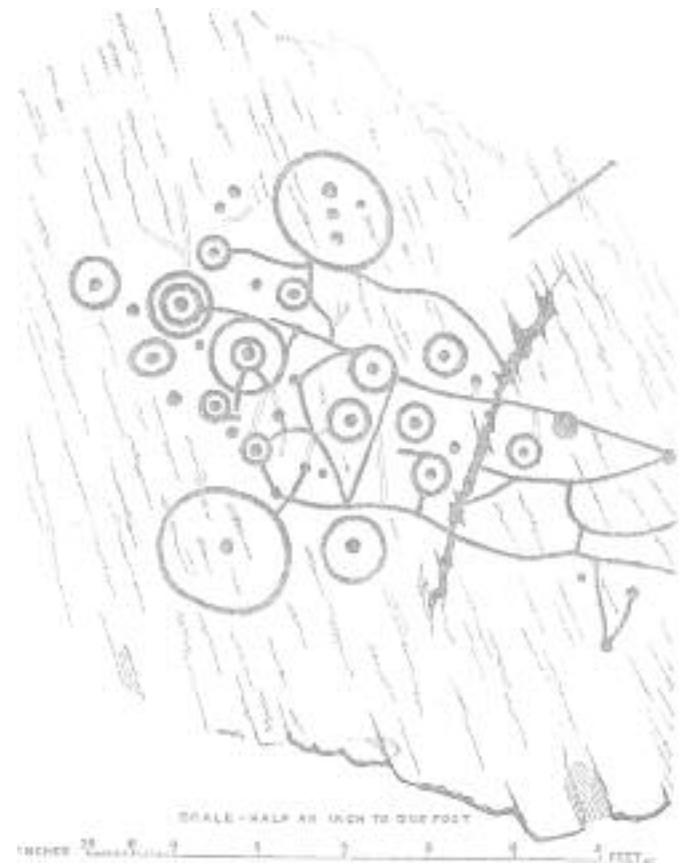
(Ken Williams)



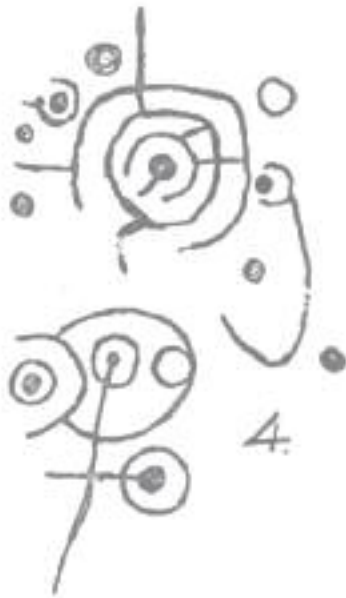
ROCK ART RESEARCH IN IRELAND

During the mid-to-late twentieth century several new rock art panels were discovered and the art began to generate extensive national and international attention. The rock art at Coomasaharn on the Iveragh Peninsula, was first recorded by Professor M.J. O'Kelly. The rock art of Iveragh soon garnered international attention. Emmanuel Anati, an Italian rock art expert, visited Derrynablaha in 1963 and he provided a detailed description of 15 panels accompanied by drawings and photographs. His interpretation of cup-and-ring motifs attempted to draw parallels with European examples. In the 1960s further recording of panels at Derrynablaha were carried out by Dr Elizabeth Shee and Professor M.J. O'Kelly. In the modern era, several rock art surveys have been undertaken, primarily in the south-west. In many cases researchers and members of the public have referred new discoveries to the National Monuments Service for inclusion in the national database of monuments, the Sites and Monuments Record. Some studies used the rubbing technique to record the panel surfaces. This involved using materials to trace the surface of the rock to understand the extent of the motifs. These records provide detailed description and images of panels that have since been destroyed, removed or affected by harsh weathering and erosion.

In 2003 the late Dr Blaze O'Connor carried out an excavation at a rock art site at Drumirill, Co Monaghan. The excavation, which aimed to investigate the archaeological context of prehistoric rock art, took place within a dense concentration of rock art sites at Drumirill, where over half the known examples of rock art from the Louth/Monaghan region occur. Fragments of Early Neolithic pottery were recovered from two separate deposits. Other finds included a flint round scraper and a later stone-lined post-hole. Further deposits revealed evidence of metallic material, comparable to Bronze Age metallurgical waste. The results of the excavation revealed that a complex series of activities had taken place at Drumirill. This remains the only excavation to have taken place at a rock art site in Ireland.



Rock art drawing from Caherlehillan,
Co Kerry published by Lynch in 1906.



Eoin MacWhite, writing in the 1940s, provided a list of motifs found in Irish rock art and drew attention to comparable examples in northwest Spain.



DIGITAL RECORDING

Traditional rubbing techniques to record rock art are no longer widely used, as in recent years new methods of digital recording have been introduced to archaeology. These provide alternative and more efficient means to record and analyse decorated stone surfaces. The use of photogrammetry and 3D laser scanning technologies, which are non-invasive methods of recording, can reveal the full extent of what are weathered carvings. Laser scanning was employed to record the panel at Clearagh, Co Cork, in 2016. This panel was first recorded in 1968 using a rubbing technique. Since then it has weathered and the once clearly visible motifs are now difficult to identify with the naked eye. The model formed as a result of the 2016 laser scan revealed the full extent of the decorated surface and some previously unrecorded motifs were identified. These modern recording methods are quickly replacing traditional recording methods such as rubbings and drawings as they are cost effective and easily accessible. Photogrammetry and laser scanning could be considered among the most accurate and efficient means of rock art recording. These methods are employed globally and the data is often digitised and easily accessible to researchers.



ABOVE:

The weathered surfaces of the decorated boulder at Clearagh, Co Cork, as recorded by photography.

BELOW:

Laser scanning of the Clearagh stone reveals far greater detail of the motifs than traditional photography.



A panel of rock art at Kealduff Upper, Co Kerry, was thought to be a modern interpretation of rock art. This was suggested due to the lack of weathering on the surface of the rock. In 2016 photogrammetry and laser scanning were carried out at the site in an attempt to prove the authenticity of the art. The photogrammetry revealed previously unrecorded motifs that had weathered and become invisible to the naked eye. The laser scan results echoed these findings, suggesting that the rock art was, in fact, of prehistoric origin. The importance of digital recording techniques at places like Clearagh and Kealduff Upper has allowed for the improved identification of prehistoric rock art.

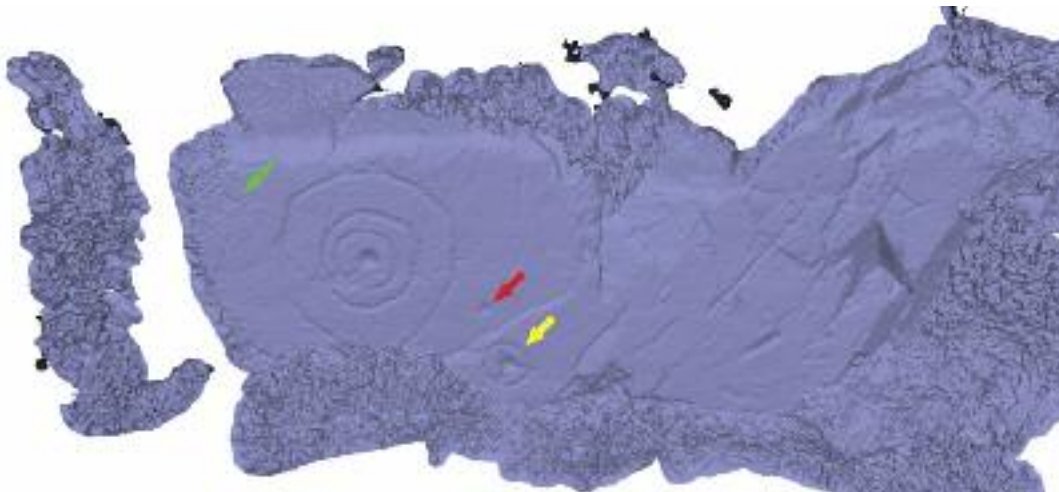


ABOVE:

Rock art at Kealduff Upper, Co Kerry, was once suspected to be a potentially modern interpretation of prehistoric rock art.

LEFT:

A digital image of the rock art at Kealduff Upper, Co Kerry shows additional, previously unrecognised motifs, thereby confirming that it is prehistoric rock art.



WEATHERING AND EROSION

The greatest threat to rock art worldwide is weathering and erosion. The primary agents of decay for all rock art formations include water, atmospheric pollution, ice, thermal changes, wind, salts and living organisms. The most common weathering processes which result from the presence of rainwater are dissolution and freeze-thaw action. Calcium carbonate is the binding agent in most sandstones and when calcium carbonate binders dissolve, the mineral components detach and fall. This results in the loss of the rock surface and inscribed art.

Freeze-thaw action is often referred to as hydraulic fracturing. This occurs when water from rain, melting snow and ice get lodged in the cracks in the rock surface. When the temperature drops below zero the water will freeze, causing the surface to expand. This expansion puts pressure on the rock. If this process occurs regularly, it causes weakness in the rock surface. This ultimately causes the surface to shatter resulting in permanent damage.



The rock art in the townland of Carrowreagh or Craignacally, Co Donegal, is concealed by moss. Artificial light can help in recognising carvings on exposed surfaces.

(National Monuments Service)





PROTECTING ROCK ART



As an element of archaeological heritage, rock art is protected under The National Monuments Act 1930-2014. Under this legislation, the National Monuments Service (NMS) established the Record of Monuments and Places (RMP) which provides details of Ireland's legally protected archaeological resource. Details of this can be found in an online database which provides geographical locations and information on listed monuments at www.archaeology.ie. Any new discoveries should be reported to the National Monuments Service, contact details are available also at www.archaeology.ie.

Rock art remains vulnerable, not just from natural weathering and erosion, but from changing forms of land management such as farm works (e.g. drainage or field boundary removal), wind farm developments and forestry. Guidelines and good practice procedures are in place to prevent damage, yet there is an ongoing threat to such a vulnerable monument type and vigilance is required.

This extensively decorated rock art panel at Derreenaclough, Co Cork, has numerous cup-marks, pick-marks and linear grooves. Once exposed, stones like this require careful protection from livestock.

Despite being protected through national legislation rock art remains at risk from both natural and human activities. While there is little that can be done to prevent natural weathering, human interference with decorated open-air surfaces can be managed. Rock art panels are often partially concealed by micro-flora, moss and blanket peat and in order to ensure minimal damage to the surface they should not be removed or altered. If removed, exposure can cause surface fracturing and result in the loss of motifs. When uncovered, the weakened surface is exposed to other elements of weathering which may also result in the further loss of art.

Many previously recorded panels are difficult to identify due to the effects of weathering and erosion and the panels can often be overlooked as a result. The motifs should not be altered or in-filled with any substance as this could cause surface fracturing. Actions like this should be avoided.

The motifs on the panel surface at Letter West, Co Kerry, have been infilled with a paint-like substance. This is not good practice.



The following guidance should be followed when visiting rock art sites and interacting with decorated panels and their owners.

THE **ROCK ART** CODE

- If you are visiting rock art, remember to ask the landowner's permission before entering private land
- Ensure that there are no visible dangers on the land before you enter and make sure to close all gates behind you. Beware of farm animals and keep dogs on a leash
- Do not stand or sit on the decorated stone surface
- Do not remove any peat, moss or other surface covering as this will damage the stone surface
- Do not use chemicals or any sharp implements or abrasive materials to clean the rock surface
- Do not use chalk or paint to highlight carvings
- Survey the surrounding landscape to assess the rock art in relation to topographical features
- Examine the rock surface looking for visible motifs, a torch may help with this
- Leave the panel as you find it
- If you are a landowner or visitor, rock art, like other archaeological monuments, is protected under the National Monuments Act 1930-2014
- Report all new finds to the National Monuments Service to ensure their protection (www.archaeology.ie)
- Remember to be patient - many rock art sites require repeated visits, at different times of day, and in different weather and lighting conditions to view the carvings

Other things you can do

- Please do take pictures, film or make sketches
- Try to find a guide, a specialist or a local person that knows the area
- Teach your children and other young people about prehistoric rock art!

WHERE CAN I VISIT ROCK ART?

Information on visiting rock art in your locality can be found on the Historic Environment Viewer on www.archaeology.ie. The map enables the user to search for individual classes of archaeological monuments including rock art by townland and county. The map will display the location of rock art panels using small red dots, indicating the coordinates and exact location. There are several rock art landscapes featuring upwards of 40 panels on the Iveragh Peninsula, Co Kerry, including Derrynablaha and Letter West. Please remember to ask the landowner's permission before entering private land.

Although the majority of rock art is located outdoors in the landscape there are a small number of panels that are now housed indoors such as those at Glendalough Visitor Centre and the Stone Corridor at University College Cork.

Information on all known and recorded rock art panels can be found at www.archaeology.ie. If you find a previously unrecorded piece of rock art, where possible take photographs, write a brief description and take coordinates. Report all discoveries to the National Monuments Service in order to ensure their protection.

ONLINE SOURCES

The website and Historic Environment Viewer of the **National Monuments Service**: www.archaeology.ie or <https://webgis.archaeology.ie/historicenvironment/>

The **Wicklow Rock Art Project** explores the potential of photogrammetry and 3D computer models in rock art recording and to examine ways to protect and promote prehistoric open-air rock art in a sustainable manner. It seeks to raise the profile of the rock art of Wicklow and ensure its survival for future generations.

www.wicklowrockartproject.com

The **Sketchfab** website has scanned digital models of Irish rock art, including the Clonfinlough and Boheh rock art. It also features international rock art.

www.Sketchfab.com

EuroPreArt: European Prehistoric Art

This website has photographs, drawings and descriptions of 49 rock art panels from the Dingle and Iveragh peninsulas in Co Kerry as well as details of rock art from Denmark, France, Sweden, Italy, Portugal and Spain. This also has a section on good practice in the care of rock art.

www.europreart.net

Research Repository UCD

Dr Blaze O'Connor (2006 unpublished PhD thesis) *Inscribed landscapes: contextualising prehistoric rock art in Ireland*

This study addresses the landscape context of Atlantic rock art, comparing three study areas in Ireland; the Inishowen Peninsula, Donegal, the Louth/Monaghan area, and the Dingle Peninsula, Kerry. Dating evidence is assessed, suggesting a Late Neolithic origin for the practice and potentially earlier, with related traditions continuing into the Bronze Age.

<https://researchrepository.ucd.ie/handle/10197/3703>



Scotland's Rock Art Project (ScRAP),

Prehistoric rock carvings are a unique part of Scotland's heritage with almost 3000 carved rocks on outcrops and boulders scattered across the landscape. Scotland's Rock Art Project (ScRAP), works with communities across the country to record, research and raise awareness of the carvings. Since the project began in 2017, the project has trained over 160 people to record rock art using a suite of techniques, including 3D modelling (photogrammetry), and to make this information publicly accessible via a website.

www.rockart.scot

Other sources

www.bradshawfoundation.com

whc.unesco.org

www.archaeologydataservice.ac.uk

Social media:

Facebook: Rock art of the UK & Ireland
Irish Rock Art

Twitter: Ireland's Prehistoric Rock Art @Irelandrockart

Instagram: Instagram/irelandsprehistoricrockart

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This small boulder at Threewells, Co Wicklow, has six rows of small holes. A total of forty-three marks are preserved. Circular hollows such as these or cup-marks in the rock surface, either individually or in groups, are a feature of rock art.

(Ken Williams)







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