Abstractions Based on Circles

Papers on prehistoric rock art presented to Stan Beckensall on his 90th birthday

Edited by
Paul Frodsham and Kate Sharpe

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Cover images:
Front: Detail of 'Old Bewick 1a' (see page 156). Academic interest in cup-and-ring marks is traditionally traced back to the discovery of this site, by John Langlands, in 1825. By coincidence, this is also where Stan Beckensall first encountered cup-and-ring marks, in 1966. Photo: England's Rock Art database.
Back: Stan Beckensall in 2018. Photo: Kate Sharpe.
Cup-and-ring marks on 'Old Bewick 1a', drawn in his characteristic style, based on wax rubbings made in the field, by Stan Beckensall.

This book is available direct from Archaeopress or from our website www.archaeopress.com

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Tertia is an Honorary Fellow in Archaeology at Edinburgh University. She has spent over 20 years researching and recording rock carvings in Britain and North Africa. During this time, she has led on several community co-production projects in Britain, including Scotland's Rock Art Project and the Northumberland and Durham Rock Art Project, and is a keen advocate of community engagement in rock art.

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Keith is a retired science teacher and experienced amateur archaeologist with an interest in the Late Neolithic/ Early Bronze Age period of the north of England. He has researched and published on the prehistoric rock art of West Yorkshire for over forty years, including co-author with the late Edward Vickerman of *Prehistoric Rock Art of the West Riding: The Cup-and-Ring-Marked Rocks of the Valleys of the Aire, Wharfe, Washburn and Nidd* (2013). He edits *Prehistoric Yorkshire*, the annual journal of the Prehistory Research Section of the Yorkshire Archaeological and Historical Society.

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Richard is a Visiting Fellow at the University of Newcastle and Director of the Archaeological Practice Ltd. He has directed numerous fieldwork projects leading to hundreds of reports and numerous publications covering urban and rural sites of all periods in the north of England and the Borders. In addition to development-related fieldwork, he has played key roles in several large-scale community-based projects in north-east England, such as Altogether Archaeology, Flodden 500, Lindisfarne-Peregrini and Revitalising Redesdale.

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Paul has worked as a professional archaeologist in northern England for more than 30 years, including 14 years with the Northumberland National Park Authority

and ten with the North Pennines AONB Partnership. He now runs his own independent consultancy (Oracle Heritage Services) and is an Honorary Fellow in Archaeology at Durham University. He specialises in the development and delivery of innovative community projects, e.g., *Altogether Archaeology* and *Belief in the North East*. He has published numerous books and papers on a variety of subjects, mostly relating to the prehistory of northern England, especially Neolithic monuments and rock art.

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After early careers in primary teaching, Iain and Irene moved to occupy posts at Bournemouth University where Irene was an Independent Study Management tutor within the Additional Learning Service. Iain was a programme leader and teacher in the Department of Archaeology and Anthropology. Both are retired, but Iain remains an Honorary Research Fellow at the University. His outputs include a multi-volume desk-based assessment of medieval rural settlement in Hampshire, and a monograph devoted to the 1969–79 excavations at the Dewlish Roman villa, Dorset.

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Aoibheann initially qualified as a lawyer and worked for international organisations before moving to Kerry in 2010. She completed a Research Master's degree in archaeology at University College Cork with a study focused on the greatest known concentration of rock art in Ireland, many of whose panels are among those first identified and recorded by Aoibheann. Presently her interests have broadened through rock art to medieval graffiti and a focus on palaeoenvironments associated with rock art. She is currently employed by UCC as an archaeologist on the LIVE project (www.ecomuseumlive.eu), where her research concerns the cultural heritage, rock art included, of the Iveragh peninsula in Kerry.

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Aron is a Reader in Heritage Studies at Newcastle University and a Research Associate at the University of the Witwatersrand, South Africa. Before relocating to the UK in 2002, Aron had a 25-year career in archaeological research, heritage and museum management in South Africa. He has published on a range of topics, including the management and interpretation of tangible and intangible heritage; museum and archaeological histories; the construction of the San hunter-gatherer past in the Thukela basin (South Africa) based on 15 rock shelter excavations; and rock art in the uKhahlamba-Drakensberg (South Africa) and Northumberland (UK).

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George is an Associate Professor at the Geosciences Centre, University of Coimbra (IPT), Portugal, lecturing on architectural and landscape theory, prehistory and art. In the past, George has undertaken research projects throughout the British Isles, and elsewhere, in Brazil, Chile, Israel, Italy, Mongolia, Portugal and Sardinia. Since 2004, George has been a Convener of the Welsh Rock art Organisation and is currently working alongside colleagues in southern Jordan and UAE, and on the *First Art* Project in the Palaeolithic caves of Spain and Portugal.

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Kate is a Research Fellow at Durham University. Her work has three key strands which often overlap: investigating the use of stone in prehistoric Britain, including megaliths, stone tools and, primarily, rock art; using digital heritage to improve understanding and awareness of the ancient past; and copy-editing and writing about archaeology. She has experience managing community rock art projects in Northumberland, Durham and West Yorkshire, although her research focus is the rock art of Cumbria.

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Joana has been working with rock art since 2003, studying and investigating sites in several European countries and of various periods. Her specialism is Atlantic Rock Art, about which she has published a volume based on her PhD thesis. She was Research Assistant for Scotland's Rock Art Project. Joana is also interested in computer applications in archaeology, archaeological theory, and the intersection between archaeology and contemporary art.

Clive Waddington

Following previously roles as a lecturer, Clive is founder and Managing Director of Archaeological Research Services Ltd, a leading archaeological consultancy. An encounter with Stan Beckensall's *Rock Carvings of Northern Britain* prompted a lifelong interest in rock art and landscape archaeology. He has published many books and papers dealing with rock art and the prehistory of Northumberland, as well as on many other areas and subjects. He has led a considerable number of fieldwork projects, many large-scale, including the important rock art excavation at Hunterheugh, Northumberland.

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Aaron Watson is an Interpretation and Engagement Manager at Kilmartin Museum and an Honorary Fellow in Archaeology at Durham University. Alongside his role in the redevelopment of Kilmartin Museum, Aaron investigates Neolithic and Bronze Age monuments and has excavated at several rock art sites. Widely known for his research into the effects of sound and light in ancient architecture, Aaron also explores creative approaches, including photography and video, to reveal and convey the experience of prehistoric sites in the landscape.

Introduction

Paul Frodsham and Kate Sharpe

stan

noun: *an extremely or excessively enthusiastic and devoted fan*

verb: *to be an extremely devoted and enthusiastic fan of someone or something*

Merriam-Webster.com Dictionary, https://www.merriam-webster.com/dictionary/stan. Accessed 12 March 2022.

When we started work on this project, neither of us had any idea that the word 'stan' had recently entered standard dictionaries, following its use as a slang term based on a character in a controversial rap song by Eminem in 2000. It is sometimes used derogatively to imply an obsessive degree of fandom, but, based on the above definition, the production of this volume may legitimately be classed as a form of 'stanning'. We are certainly happy to class ourselves as 'Stan stans', as, we suspect, will this volume's contributors and many of its readers!

For most of the twelve months we were working on the volume, it had no title. 'Don't worry, we'll find one somewhere' was uttered on numerous occasions, with slightly less certainty as time wore on. Then we found it – the perfect title, hiding in one of Stan's poems. Within a verse entitled 'Art from the beginning', we spotted the splendid phrase 'abstractions based on circles', which we knew instantly was exactly what we were looking for. Thanks, Stan!

Ten years ago, several of the contributors to this volume played a role in the 'Stanfest', a rock art day-conference to celebrate Stan's 80th birthday, held at the Queen's Hall in his home town of Hexham (Figures 1 and 2. See also: https://www.facebook.com/StanFest-368606793214627/). Somehow, with the connivance of his family, the whole thing was kept secret from him until ten minutes before it started! For us, it was one of the most enjoyable events we have ever been involved in, and Stan certainly appreciated it very much. Ten years on, we thought it unreasonable to expect him to sit through another day of presentations, so instead hit on the idea of a festschrift. With less than a year until his 90th, we circulated a brief note to rock art colleagues, stressing how short of time we were and that deadlines would consequently be tight and non-negotiable. The response was immediate, and overwhelmingly positive. Most of the contributors know Stan personally; all have used his work to inform their own and are happy to place on record their thanks for his efforts over the years. David Davison at *Archaeopress* welcomed our proposal and promised to meet the tight deadline. All the contributors submitted their papers on time, and rapidly checked and returned drafts and proofs. Ben Heaney at *Archaeopress* fast-tracked the design (and incorporated a sizeable batch of last-minute changes at proof stage – thanks Ben!) in order to have everything ready for Stan's birthday. The result is what you see before you; hopefully a fitting tribute to Stan as he enters the tenth decade of his amazing life.

The volume has been produced as part of the *Belief in the North East* project (www.beliefne.net), a community archaeology project based at Durham University and funded by the National Lottery Heritage Fund, designed to enable local volunteers to participate in a range of events, including fieldwork, linked to the archaeology of religion, from prehistory to present, throughout north-east England. The project has more than 1200 registered volunteers, several of whom will help with important fieldwork initiatives at Northumberland rock art sites during 2022. We are pleased that funding provided by the project has enabled the volume to be made freely available online as a pdf to anyone who may wish to consult it, wherever in the world they may be.

We are delighted by the variety of contributions (and contributors), reflecting many different aspects of rock art research and covering work by both academics and amateurs. Indeed, we hope the volume recognises the tremendous debt owed to volunteers and enthusiasts across Britain and Ireland. We also hope that by bringing together contributions from academics and amateurs we are helping to bridge any perceived divide, and to continue the exchange of expertise, ideas and opportunities that we have seen in recent years, and to which Stan has contributed so much.

In our original circular, we invited proposals for papers about any aspect of rock art research. We wondered whether contributions would fall readily into themed sections, around which the book could be structured.

Figure 1. Stan is handed the programme for the Stanfest; this was the moment he first learned of the event, about ten minutes before it was due to start! Photo: Marc Johnstone.

Figure 2. Contributors to the Stanfest outside the Queen's Hall, Hexham. Standing (left to right): Clive Waddington, Elizabeth Shee Twohig, Keith Boughey, Stan, Chris Chippindale, Paul Brown, Tertia Barnett, Kate Sharpe, George Nash, Bob Layton. Kneeling: Aron Mazel, Paul Frodsham. Photo: Marc Johnstone.

This was not the case, so what follows is only loosely structured, beginning with papers with a regional focus followed by those with more general themes, and ending with three Stan-specific contributions. As editors, we have sought to be light-handed; some contributors make assertions with which we don't necessarily concur but, given the subject matter, this is all but inevitable. With regard to rock art, the old adage 'if you ask two archaeologists the same question you will get at least three answers' certainly holds true!

The first paper considers the fascinating dilemma presented to us by 'natural' rock art. Kate Sharpe asks what Neolithic people may have made of unusual markings on rock that we would today describe as 'geological'. Today, even experts can be unsure as to whether some 'carvings' are natural, artificial, or perhaps a bit of both. Neolithic people may not have worried about such distinctions; unusual marks on rock, just like landscape features such as distinctive rock formations, waterfalls or even mountains, were probably understood by reference to ancestral myths rather than 'science'. Might this have relevance to the origins and nature of cup marks and more complex rock art, and if so, how we might go about investigating it? Kate considers this by reference to sites in Cumbria, building on Stan's earlier work in the county.

As the founder of the Welsh Rock Art Organisation, George Nash is well placed to provide an overview of rock art in Wales, most of which is found in monumental contexts. He describes well-documented monuments such as Barclodiad y Gawres, Bryn Celli Ddu and Bachwen, and presents recent work at Garn Turn, Garn Wen, Trellyffaint, and the Trefael Stone. He considers the possible relationships between such monumental art and 'open-air' carvings on boulders or outcrops which, for unknown reasons, are relatively rare throughout Wales in comparison with parts of Ireland, Scotland and northern England.

Aoibheann Lambe provides a fascinating overview of rock art discoveries in Ireland that will be of great value to those of us less familiar with the Irish material. Aoibheann guides us around the island from the rock art centres of Donegal in the north to the counties of Cork and Kerry in the south-west, and many new sites in between, as she traces new discoveries with implications for chronology and relationships with other monuments. We meet a varied cast of rock art discoverers, past and present, all contributing to an expanding network of influence and increasing awareness. Aoibheann's observations regarding the acceleration in discoveries over recent years are astonishing; the distribution maps are being redrawn at a rapid pace and we cannot help but wonder how many more Irish sites will be known by Stan's 100th birthday!

We then travel to Scotland, to visit the extraordinary archaeological landscape of Kilmartin Glen, a place of which Stan is particularly fond and about which he published *The Prehistoric Rock Art of Kilmartin* in 2005. Three contributions focus on this area, in very different ways. The first, by Kenny Brophy, highlights the astonishing archive of Ronald Morris – Stan's 'equivalent' (if such a thing is possible) in Scotland. Ronald worked on Scottish rock art in the 1970s, at the same time that Stan was working in Northumberland, and when 'serious' archaeologists avoided the subject like the plague. The carvings couldn't be dated, and nobody knew what they were for, so what was the point in wasting time studying them? When Ronald died in 1992 he bequeathed various items to Stan, who ensured that the vast Morris Archive found its way to the Royal Commission on the Ancient and Historical Monuments of Scotland (RCAHMS), where it has remained, unstudied, ever since. Kenny discusses this archive as it relates to Kilmartin, noting the huge potential it offers for research here and elsewhere.

A second Kilmartin contribution, by Tertia Barnett, Linda Maria Bjerketvedt and Joana Valdez-Tullett, focuses on work recently undertaken by the Scotland's Rock Art Project (ScRAP). This project involved numerous trained volunteers throughout Scotland, resulting in a vast corpus of data now incorporated into the publicly available Canmore database of archaeological and historical sites compiled and managed by Historic Environment Scotland (https://canmore.org.uk/). This paper presents some preliminary results of GIS analysis of that data, exploring how rock art may have been encountered by people moving through the landscape. How visible were the carved surfaces, and from where? And how accessible were they? The answers to these important questions are not entirely as might have been expected.

Aaron Watson provides the third Kilmartin contribution, focusing on just one site – but what a site! Achnabreck displays an unusual combination of motifs more usually associated with Irish passage grave art together with conventional cup-and-ring marks. Aaron has probably spent much more time studying this amazing place than anyone, with the possible exceptions of Ronald Morris and Stan. From his unique perspective as artist and archaeologist, he offers intriguing observations and some fascinating interpretation that could also be of relevance to sites elsewhere. The suggested link with the winter solstice sunset is especially appealing and should trigger the search for comparable observations elsewhere.

By happy coincidence, this challenge is accepted by Richard Bradley (Figures 3 and 4), who has written extensively about rock art over recent years and is always keen to stress the extent to which he has relied

Figure 3. Stan with Paul Frodsham and Richard Bradley at Copt Howe, Cumbria, in 2018. Photo: Kate Sharpe.

on Stan's experience. Indeed, in his *Rock Art and the Prehistory of Atlantic Europe* (1997) he credits Stan with having introduced him to 'the pleasures of studying rock art'. In his paper, he examines a small number of very unusual sites, and relates them to aspects of their local landscapes that seem to align upon the setting sun at the winter solstice. Richard, perhaps more than anyone else, has influenced the ways in which we think about rock art today, and this contribution certainly provides further food for thought.

While many contributions in this volume discuss well-known sites, we must not lose sight of the multitude of small, often simple examples of rock art that have been recorded in numerous places. These include cup marks in cairns, found commonly in parts of Northumberland and North Yorkshire, sometimes in large quantities. Back in the 1970s and early 1980s, Stan excavated two cairns (Weetwood and Fowberry) in North Northumberland that contained numerous cup-marked stones with their motifs unweathered, suggesting they were freshly made prior to deposition. In the summer of 2021, Richard Carlton led a programme of survey and

Figure 4. Stan and Richard Bradley at Morwick, Northumberland, in 1990. Photo: Paul Frodsham.

excavation within a Bronze Age landscape on Fawdon Hill, Redesdale, Northumberland. Redesdale has very little recorded rock art, which did not feature in the planning of this project. However, the excavation of a small cairn resulted in the discovery of several stones with unweathered cup marks. Intriguingly, also in line with Stan's excavations, there was no obvious sign of any burials. The archaeological landscape at Fawdon Hill is by no means unusual; numerous similar examples are known in the uplands of Northumberland and elsewhere. How many more cup-marked stones await discovery in such landscapes, and why were they deposited in such places?

The contribution from Iain and Irene Hewitt focuses on the excavation of a cairn at Blawearie that might reasonably have been expected to contain rock art of some kind but, oddly, did not. It is therefore something of a misfit within this volume, though Stan's involvement in the excavation provides ample reason for its inclusion. The cairn clearly had a complex history, and lies within a landscape rich with rock art, so why no rock art was incorporated into it, during any of its phases, is a bit of a mystery. The issue of when and why rock art, either newly made or 're-used', found its way into burial monuments demands much further study.

Keith Boughey tells the intriguing tale of the Swastika Stone on Ilkley Moor, a site that has baffled rock art scholars since the nineteeth century. The unusual motif, unique in Britain, has a number of parallels that Keith scrutinises here, including the well-documented 'Camunian roses' of north-west Italy and examples in Bohulsän in south-west Sweden, both dated to the Iron Age. He also presents less familiar cases from Sicily, Mali and Portugal before exploring possible meanings from 'warriors' to 'comets', and a fascinating possibility that the Ilkley motif was the work of continental Celts who visited the moor whilst on a tour of duty with the Roman army.

Paul Frodsham takes a sizeable risk in presenting his thoughts on the possible 'purpose' and 'meaning' (he prefers 'connotation') of cup-and-ring marks. This is a dangerous field, which has inspired (and continues to inspire) some very odd thinking. Paul approaches the subject by reference to Native American ethnography, which he is convinced provides some useful clues regarding the nature and purpose of cup-and-ring marks, though, as he stresses, nothing in Neolithic Britain was 'the same' as it was in America thousands of years later. He sees cup-and-ring marks as 'motifs' rather than 'symbols', arguing that they need not necessarily be symbolic of anything other than themselves, though they may well incorporate the idea of a 'sacred centre'. His suggestion that some rock art sites could have functioned in a way comparable with North American vision quest sites is bound to be controversial, but is, in his view, far more likely than that they functioned as maps, signposts or territorial markers, all of which are modern concepts, probably alien to Neolithic thinking.

While this volume's main focus is, of course, backwards to the Neolithic and Early Bronze Age, it is important that we also look to the future and consider how our understanding of rock art might change through new fieldwork. As one of the few people to have excavated an extensive cup-and-ring-marked outcrop, Clive Waddington is ideally placed to consider this. His contribution focuses on the importance of excavating rock art sites, of which we must surely do more if we truly want to make progress in understanding chronology and purpose. Anyone planning future excavations of rock art outcrops should certainly bear in mind everything that Clive says here. We must also avoid falling into the trap of studying (or even thinking about) rock art in isolation. Rather, we should think in terms of 'rock art landscapes' and actively seek opportunities to investigate relationships between rock art and other aspects of Neolithic and Early Bronze Age worlds.

The final three contributions all focus on 'Stan the man'. Aron Mazel, who oversaw the project to digitise Stan's extensive archive and make it available online (sadly, at the time of writing, the website is unavailable), presents an overview of Stan's involvement with rock art from the 1960s to the present day (Figures 5 and 6). Aron also notes some of Stan's other achievements: in addition to his archaeological and historical work, he has contributed much in the fields of poetry, drama and the church. Also (and in Stan's opinion much more importantly) he is a great family man, standing with his dear wife, Jane, at the head of the ever-expanding Beckensall clan! One may legitimately wonder how on earth he has fitted all this into just one life. And he isn't finished yet! His latest archaeological book, on death and religion, was approaching publication as this volume went to press.

Paul Bahn makes clear in his appreciation of 'The Lord of the Rings' that Stan's work has been influential in his own research. He particularly highlights his no-nonsense approach and efforts to counter shamanic explanations. Paul stresses the way in which rock art is very accessible, both intellectually and physically, and that current knowledge owes much to survey and interpretation undertaken outside the academic sphere.

The final contribution is provided by two experienced 'amateur' practitioners, Phil Bowyer and Andy Curtis, who have followed Stan's lead in undertaking archaeological

Figure 5. Stan at Weetwood Moor, Northumberland, in the 1970s. Photo from the Beckensall Archive, courtesy of Aron Mazel.

survey work in Northumberland over recent years. Much of their work has been done under the auspices of the Tynedale North of the Wall community group; the wall in question being, of course, Hadrian's, which in the past has dominated archaeological enquiry in Tynedale, leaving few resources for landscape surveys in the wide open 'empty' landscapes to its north. Inspired by its president, Stan, this group is discovering and documenting rock art within complex prehistoric landscapes rather than in isolation, which is crucial to our understanding. This paper also presents some recent spectacular discoveries of rock art in Northumberland, demonstrating that there must be many more such sites awaiting discovery.

At the end of the volume, we include a bibliography of Stan's published work on rock art. While undoubtedly an impressive corpus of work, this tells only part of the story. So much of his contribution has been in the form of public presentations and sharing his knowledge face to face, often across a panel of rock art on a misty moor! We can be reasonably certain that no Neolithic person ever saw as much rock art as Stan has. His unrivalled

Figure 6. Stan lecturing at Roughting Linn, Northumberland, in May 2022. Photo: Paul Frodsham.

Figure 7. Stan demonstrating his recording technique at Chatton Sandyford, Northumberland, in 2002, watched by an attentive Kate Sharpe. Photo: Andrew Blanshard.

experience of rock art in its myriad manifestations give him an authority on the subject that is unlikely ever to be surpassed. No amount of data analysis using sophisticated GIS, or endless manipulation of high-resolution 3D models, can compare with the intimacy gained from spending hours in a landscape, carefully tracing the contours of a carved stone with wax crayon onto newsprint (Figures 7, 8, 9 and 10). With such dedication comes empathy, insight, and understanding, all of which Stan not only has in abundance, but has always been happy to share.

We hope this volume reaches a wide audience and encourages many more people to follow in Stan's footsteps by becoming involved in some way with rock art, whether through participating in projects, visiting sites, or just thinking about it. On behalf of all the contributors: thanks so much Stan, and HAPPY BIRTHDAY!

Figure 8. Stan recording at Morwick, Northumberland, in 2003. Photo: Aron Mazel.

Figure 9. Stan recording on Ben Lawers, above Loch Tay, in July 2007. Photo: Paul Frodsham.

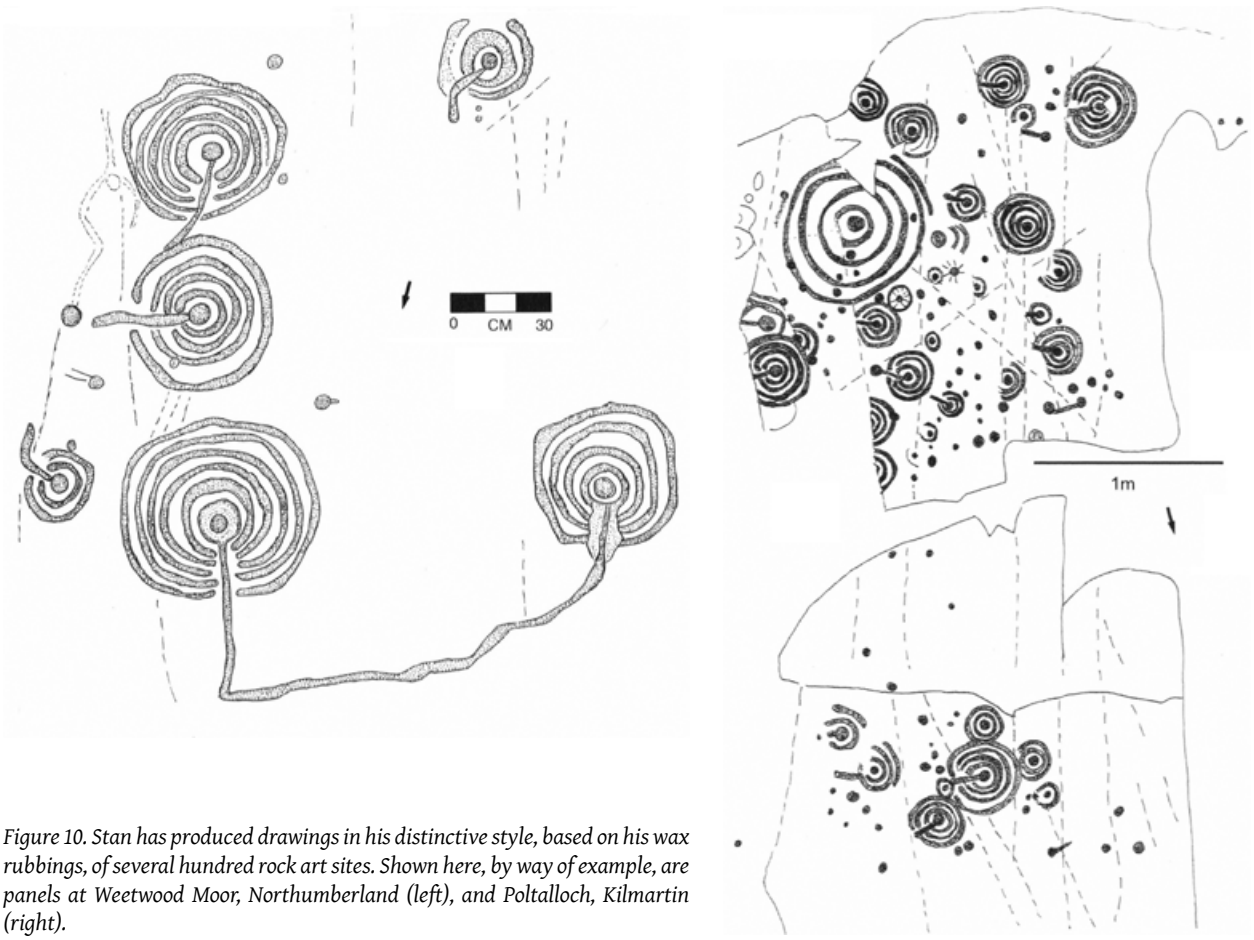

Figure 10. Stan has produced drawings in his distinctive style, based on his wax rubbings, of several hundred rock art sites. Shown here, by way of example, are panels at Weetwood Moor, Northumberland (left), and Poltalloch, Kilmartin (right).

1

An apt response? Encounters with cup marks and 'found rock art' in Cumbria

Kate Sharpe

Introduction: 'found' and 'made'

The Lake District in the county of Cumbria, north-west England, is a region of striking geological formations and contrasts, forged by fire and lava, and sculpted by ice and water. Many exposed rock surfaces bear patterns resulting from the natural forces which formed and then weathered them. In this complex landscape, the rock art is simple: scatters of unelaborated cup marks. By contrast, the decorated surfaces are often monumental: substantial wedge-shaped outcrops, known as *roches moutonnées,* that rise from the earth, their upstream slopes scoured smooth by glaciers, which then plucked the leeward faces into rough, craggy walls.

One of the earliest such sites to be identified in the county, on the northern shore of Crummock Water, was reported to Stan Beckensall in 2003. Stan generously passed on the details as I began my doctoral research investigating Cumbrian rock art, along with a poem inspired by the new site and reproduced here with his kind permission (Figure 1). Both site and poem set me firmly on my path of rock art exploration

Crummock Water

How easily some distant mountain tops
Slip through hammocked gaps in drystone walls
As we approach a lake-strewn valley
Rich with wild flowers thrusting through
Rough pasture and a static stream-flanked marsh.

The lake is flat and silent, waiting for thin cloud and mist
To roll down slopes, reflecting flecks of darkness
As light-sheets shift above it,
Hovering in expectant air.

Caught in the middle of high ground
A rising pyramid of outcrop rock
Echoes dark mountain peaks
Linked to the lake
With ancient trackway and with standing stones.
Cup-marked upon its upper slopes in prehistoric times,
Its symbols speak of sanctity – a special place,
A still part in the turning wheel
As all around the mountains
Radiate their special song.

Some people deep within the past
Picked in the ice-scoured surface of a living rock
Their little hollow circles,
Somehow capturing an apt response that will
Forever turn and turn around them,
Sometimes crazily, sometimes with steady reassurances
That within their lives all will be well,
Tuned to the mystery that grows around them.

Stan Beckensall, July 2003

Figure 1. 'Crummock Water' by Stan Beckensall with a view from the cup-marked outcrop towards the lake and central fells. Image: K. Sharpe.

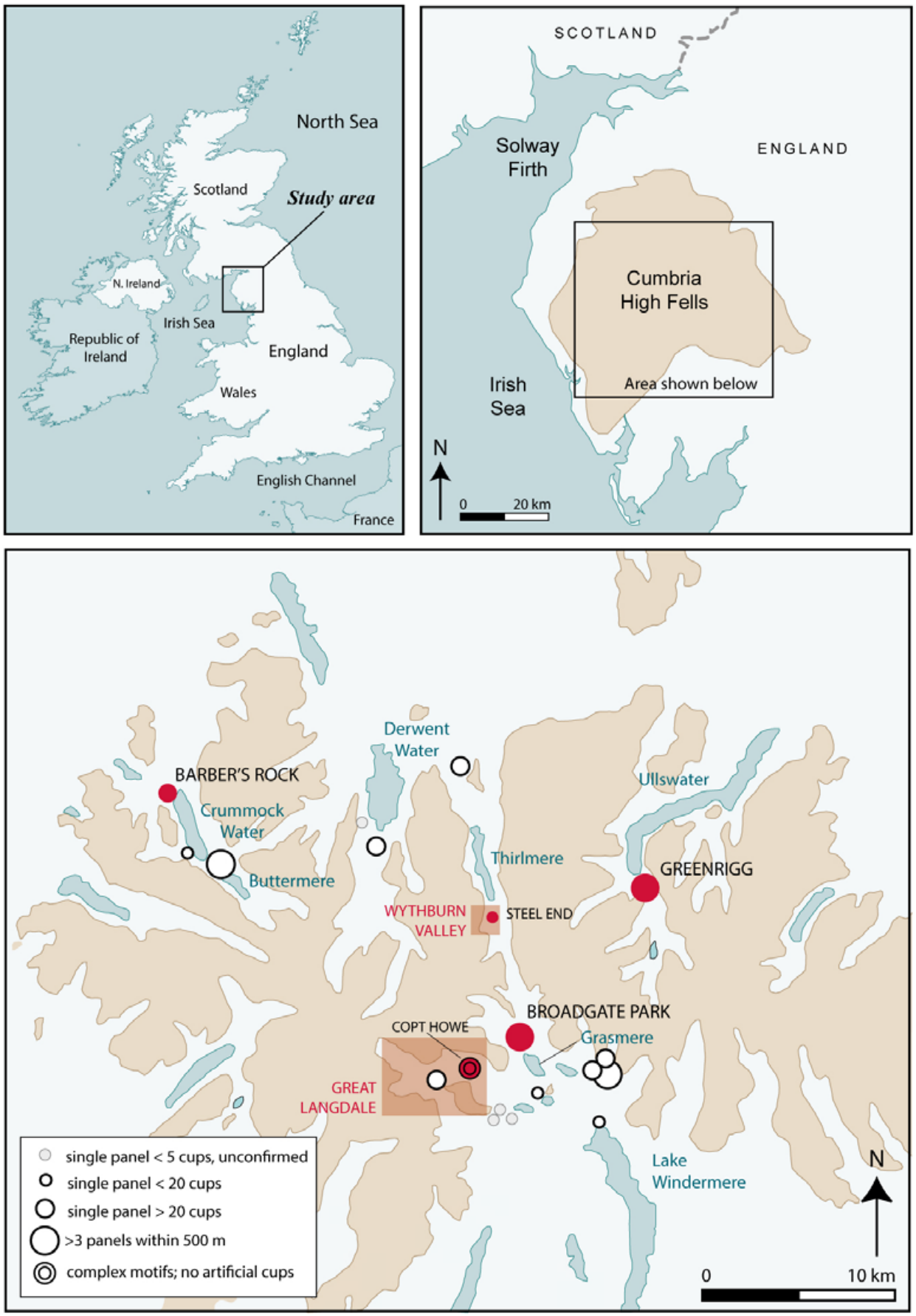

Figure 2. Location of study area showing cup-marked outcrops (red circles) and areas with natural decoration (red shaded squares) described in the text in relation to other rock art panels and to lakes and elevated land above 300m (brown shaded areas). Map: K. Sharpe.

and prompted a question that I continue to ask: to what extent do the pecked motifs represent the 'apt response' that Stan describes? How much were they influenced by the form of the rocks or by the presence of existing geological patterns?

As archaeologists or heritage managers, we often strive to separate the 'artificial' from the 'natural' in order to analyse or protect it. Part of my own doctoral work involved developing a scoring system to evaluate the likelihood of newly reported cup marks being of natural or prehistoric (or historic) human origin. More recently, when training volunteers to recognise rock art, I used a quiz where trainees responded 'rock art' or 'not rock art' to a series of images. I have, however, become increasingly uncomfortable with this process of separating geological patterns from rock art and more interested in the intersections where they overlap: those grey areas where human marks incorporate or elaborate natural elements or suggest inspiration and emulation. These traces reflect moments of direct engagement with the rock surface, providing insight into a prehistoric perspective that is often missed when pecked motifs are prioritised over other features. Here, I would like to take a step further and suggest that we should consider the strong possibility that prehistoric people encountering markings or patterns of *any* type would not have made the same distinctions that we do, particularly when these elements occurred in high densities or on striking rock formations. Should we not, therefore, take greater note of natural 'decoration' in the landscape, even when not directly associated with rock art? Although it remains necessary to exclude recent marks such as those resulting from plough and flail strikes or bullet ricochets, the natural features likely to have been encountered by prehistoric people should not be dismissed so rapidly. Rather than simply consigning these to the domain of geology, should we not try to consider them through the eyes of early explorers, applying a more holistic perspective? Could 'found' marks be considered within the same ontology as those that were 'made', and how might this be achieved? This paper reviews the evidence for close relationships between the people of the Neolithic and Early Bronze Age periods and the stonescapes they inhabited, focussing on Cumbria with key examples from the Lake District (Figure 2), including the rock art panel of 'Barber's Rock' at Crummock Water immortalised by Stan. I argue for a more holistic approach that, rather than forcing the rock art corpus into categories informed by modern, Western values, instead seeks to reveal prehistoric perceptions of the world by exploring engagements with (and 'apt responses' to) that world, in the form of cups and rings.

Decorated landscapes: the art of geology, water, wind, and time

The lives of prehistoric communities depended on an intimate understanding of their surroundings: the most productive hunting grounds, the best pastures, the habitats of useful plants and trees, and the richest sources of fish. People also prospected for stone, flint and mineral ores. During such explorations, they encountered a vast array of geological features and formations, from wave-sculpted cliffs and glacially-honed mountain ridges to complex arrangements of folded strata and colourful mineral inclusions. Without knowledge of sedimentary processes, tectonics, glaciation, pyroclastic events, erosion or chemical weathering, the myriad of curious shapes, colours, textures and patterns surely prompted a degree of reflection. Unusual rock formations, differential weathering, mineral concretions, solution hollows, quartz veins and fissures may have provoked questions about the origin of these features, especially when they appeared to resemble faces or animals, or had elements of symmetry or order, forming rows, grids, rings, or crosses. There is growing archaeological evidence that such 'decorated' locations held potent social significance during prehistory.

Special stone; special places

Analysis indicates that during the Neolithic and Early Bronze Age periods, the lithics preferred for tools or monument building could be extremely specific, and that people went to great lengths to secure them. Raw material was chosen for hardness, resilience, and workability but qualities such as colour, shape, and texture were seemingly of equal importance and social value was also placed on the place of origin. Examples abound, from the deep blue felsite used to make tools in Shetland (Cooney *et al.* 2019) and blue-green tuff from the Cumbrian mountains used for stone axes (Bradley and Edmonds 1993), to the Stonehenge bluestones brought from Preseli (Parker Pearson 2019) and the quartz cobbles at Newgrange and Knowth (Mitchell 1992).

The quarries and mines from which these stones were extracted were often removed from the everyday world, on remote mountains or islands or deep below ground. These evocative natural places provided prehistoric prospectors with rare and unusual materials, which they fragmented—quarried, mined, shaped, and moved—to create stone circles, passage graves, or prized tools like knives and axes. Such objects or 'pieces of places' (Bradley 2000: 88) became emblematic of their origins, extending their power and both amplifying and memorialising it. Darvill (2019: 127) notes the individual

Figure 3. Mythical landmarks. Left: 'The Cow and Calf', Ilkley Moor, West Yorkshire (photo: TJBlackwell at English Wikipedia, CC BY-SA 3.0). Right: 'The Bowder Stone', Borrowdale, Cumbria (photo: Shaun Ferguson, CC BY-SA 2.0).

nature of these contexts, 'the stone from each having particular perceived powers, defined purposes and specific embodied memories'. Prehistoric people were deeply engaged with geologically unusual places, and these had established social contexts.

Responding to rocks: proto monuments and geomythology

Further evidence of prehistoric relationships with stone can be found in the blending of striking natural rocks with built structures. As noted by Barnatt and Edmonds (2002: 127) regarding the use of natural caves as burial tombs, 'it is a modern conceit to assume that past communities would have held geology and architecture apart in the same ways as we ourselves'.

'Accidental architectures' provided inspiration for a variety of creative responses by megalith builders, including enclosure, embellishment, and emulation. The innermost enclosure of the Neolithic settlement of Carn Brea in south-western Britain encompasses a massive granite outcrop that resembles nearby megalithic tombs (Mercer 1981). Bradley (1998: 20) suggests that the tors may have been regarded as the ruins of ancestral monuments; Tilley (1996: 165) argues that they were 'non-domesticated "megaliths" or stone monuments, sculpted by the elements and imbued with cultural significance in the Mesolithic imagination in the forms of stories, myths and events of cosmological import'.

These monumental rocks can perhaps be considered alongside volcanoes, earthquakes, floods, fossils, and other natural phenomena known to inspire poetic metaphor and 'geomythological' imagery in pre-scientific cultures (Mayor 2005). Jones (2013: 55) explains that '...both landscapes and the "constructed" and "natural" features within them are cultural edifices, built from memory and shared experiences of inhabiting the world'. In addition to being recognisable landmarks, perhaps aiding navigation, such sites may have been considered the legacy of ancestors or mythical beings, inspiring attachment, woven into legends, imbued with special powers, or given colourful names. More recent folklore hints at the nature of such narratives. In the Lake District, 'The Bowder Stone' (Figure 3) 'beguiles travellers' because 'it is balanced improbably on one edge' (National Trust n.d.). One side is said to resemble the face of Balder, the son of the Norse god Odin; a small hole marks the place where a weapon pierced and killed him (Hodgson 2007: 5).

For prehistoric communities, well-known and recognisable locations very likely became focal points, embedded in the collective memory, and were perhaps meeting places for generations of local communities. Perceived connections with ancestors or gods may have led to them becoming an early form of monument—precursors of megalithic constructions—where people gathered to be close to the spirits, thus affording them a cultural value long before they were encompassed by enclosures or embedded in monumental settings.

Megalithic design schemes

The intrinsic materiality of stone was highly significant to megalithic monument builders in Britain and Ireland. Many authors note the inclusion and particular positioning of specific shapes, colours and textures (e.g., Cummings 2002; Jones and MacGregor 2002; Lynch 1998; Scarre 2004; Tilley 2004). Notable examples of distinctive geological choices occur in monuments across Britain and Ireland (Darvill 2002; Jones 1999; MacGregor 2002; Mitchell 1992; O'Kelly 1982; Parker Pearson 2019). In Cumbria, selective use of material is apparent at the stone circles of Gamelands, with 39 coarsely-textured pink granite boulders (Figure 4a) and a single slab of weathered white limestone (Ferguson 1883: 184), and Glassonby, with seven distinct geological types of various colours (Collingwood 1901: 297–298).

Surface features were also important: natural hollows, quartz veins, and mineral inclusions frequently occur in megalithic monuments, suggesting preferential inclusion. Bradley and Phillips (2008: 11) note that colours, textures and striking natural inclusions were key elements in tombs in Bohuslän, Sweden. Similarly, in relation to megalithic tombs near Lisbon, Cardoso and Boaventura (2011: 307) observe intentionality 'not only as regards the selection of slabs that had one of their surfaces completely covered with tubular ichnofossils, but also in the way that these were architecturally arranged'.

In Cumbria, Gamelands stone circle features a prominent quartz 'cross' (Figure 4a); the Goggleby Stone has a natural 'dish' (Figure 4b); and a sandstone block at Studfoldgate circle has chevron-shaped folds previously published as 'rock art' (Hood 2005; Figure 4c). At the circle of Long Meg and Her Daughters, the outlying red sandstone pillar (Long Meg) is extensively carved on one face with concentric rings and spirals placed around natural fissures. As Stan Beckensall carefully notes: 'Two roughly horizontal natural strike lines that are crossed by three natural vertical cracks enclose this central section. The middle vertical crack runs the length if the pillar' (Beckensall 2002: 66). Some of Meg's 68 'daughters'—most of them grey volcanic rock—display notable features such as the quartz inclusion on Stone 2 (Figure 4d).

Prehistoric people clearly engaged deeply with the forms, colours, textures and patterns present in their stonescapes; they made careful selections and accorded special treatment to unusual features. How then, might similar responses be detected in relation to the creation of rock art?

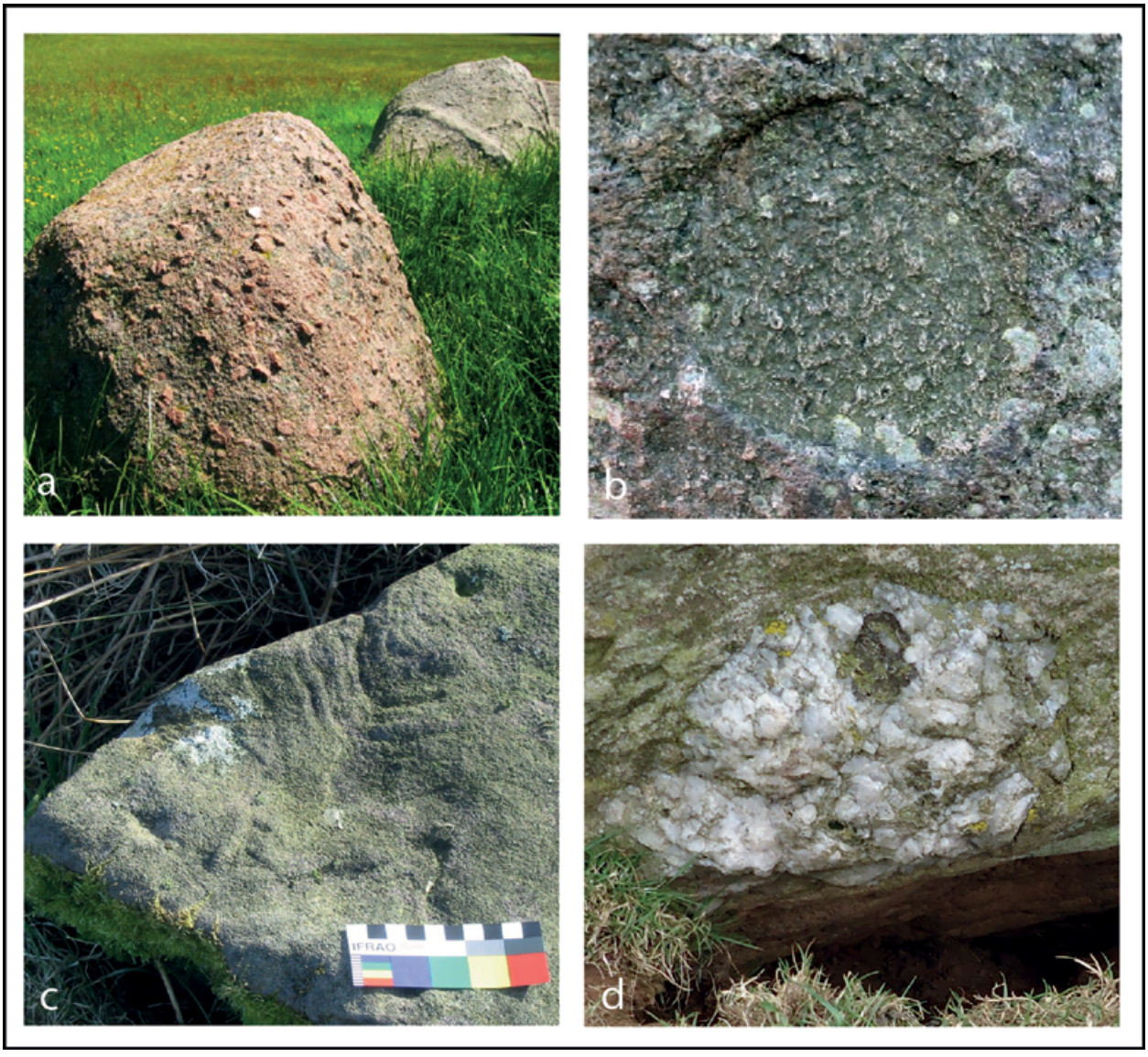

Figure 4. Naturally decorated stones incorporated into megalithic monuments in Cumbria: a) block of pink granite at Gamelands stone circle, with heavily quartz-veined block behind (photo: G. Parry); b) erosion scar on the Goggleby Stone, Shap Avenue (photo: K. Sharpe); c) 'chevron' folds at Studfoldgate stone circle (photo: K. Sharpe); and d) quartz inclusion in Stone 2 at Long Meg and Her Daughters (photo: P. Frodsham).

Rock art and materiality

Five millennia of geological, biological, and human activity have undoubtedly erased many of the carvings that once embellished the landscape and have significantly altered the appearance of those remaining; they have also modified the form and features of the natural surface onto which rock art was placed. Despite so much loss, it is still possible to discern that the multiplicity of arrangements of pecked cups, rings and other motifs that remain often emulate, incorporate, respect, or respond to natural features. Those who created rock art were aware of their geological 'canvas' at several scales: complex relationships appear to exist between the carvings applied and the overall size, shape, colour and surface texture of the bedrock or boulder (Bradley 1997: 132–135; Tilley 2004: ch. 4). Tilley (2004: 215) suggests that 'meaning did not just reside in the image but also in relation to the stone in which it was carved and the way in which both were related to an experience of landscape'. It is now widely acknowledged that motifs must be recorded and considered in relation to the wider geological surface onto which they are placed, in addition to the landscape setting of that surface.

Physical presence and morphology

Several rock art sites stand out in the record: those large, prominent, and visually dominant ('proto-monumental'?) rock formations or large exposures of bedrock for which the carved motifs provide a final layer of embellishment. Haystack Rock and Pancake Rock (both West Yorkshire), Roughting Linn, Lordenshaw and Old Bewick (all in Northumberland; Figure 5), are amongst the largest and most heavily decorated British examples, and surely held a particular significance for the communities who 'adopted' them by adding their own marks.

Some researchers have related rock art to the morphology of the rock surface, which is perceived as a three-dimensional, micro-landscape or 'stage' onto which representational art is applied. In northern Russia, for example, carved figures appear to ski down a slope in pursuit of an elk (Janik *et al.* 2007); by moving around the rock the observer creates an extended narrative. Similar use of natural forms is suggested at Naquane, Italy, where glacially-polished sandstone 'waves' feature a horizontal figure 'swimming' along a rain-filled channel (Priuli 2002: 28). Watery links are also suggested by Bradley and colleagues (2002) for an outcrop at Revhiem, Norway which, they argue, resembles an upturned boat; rock contours, quartz veins and water flow all affect the placement of carved images, predominantly ships, which become animated by the stream of water.

Emulation and incorporation

The texture, features, and patterns that occur within the substance of stone, and are revealed on exposed surfaces, also influenced both the choice and placement of the abstract motifs of British and Irish rock art. Analysis of panels in Kilmartin Glen by Jones (2005), indicates that cracks and mineral veins served as 'frames'. Jones argues that the shapes and sizes of these frames dictated the nature of the motifs carved within, with both natural and artificial markings attracting the addition of new figures.

Figure 5. Monumental boulders and outcrops with rock art. Top: Pancake Rock, West Yorkshire; Haystack, West Yorkshire; Old Bewick, Northumberland. Bottom: Lordenshaw, Northumberland; Roughting Linn, Northumberland. Photos: England's Rock Art database.

Natural patterns are also thought to have inspired imitation. Shepherd (2000) suggests that cross-and-lozenge designs on architectural stones in the Neolithic settlement of Skara Brae, Orkney, were inspired by the natural fracturing of local flagstone. She argues that the motifs represent 'the expression of a community whose origins were deeply rooted in the place' (Shepherd 2000: 151) and suggests that the incorporation of a stone with a cross-and-lozenge motif within the foundation of a house wall provided a secure 'bedrock' for the structure. Thomas (2016: 213) notes a similar association between geometric motifs on internal walls at Cuween Hill cairn (also Orkney), which was quarried into the hillside, exposing orthogonal joints that form the bedrock floor. She explains that the 'designs are referencing the landscape and its properties through the material itself, making explicit both the commemorative associations of the place, and the process of extraction and working'.

There are many examples of rock art where geological features are directly incorporated into designs. Contours add volume or depth to motifs; fissures or solution hollows are embraced or augmented; and xenoliths and quartz veins become design components, sometimes deepened, extended or elaborated. Such examples provide a challenge for identification and recording, requiring careful consideration about what is (and is not) rock art. This is especially difficult for weathered hollows which can easily be mistaken for cup marks (Sharpe 2007: ch. 4).

Blurred lines and grey areas

Analyses are further complicated where 'found' and 'made' features merge. Such engagements with pre-existing features create a grey area, demanding that the boundaries of classification are extended beyond purely anthropogenic markings. It is at this scale, of the microtopography of natural elements and the interwoven cartography of cups, rings and grooves, where the most intimate relationships between the carver and the natural world are revealed and where the 'apt response' is expressed – the result of a profound understanding and experience of the materiality of the stone. Thomas (2016: 213) observes in relation to the fracturing of the Orkney flagstone into lozenges and triangles, 'it is through the interaction – the process and experience of sourcing and quarrying the stone – that this appreciation emerges'. She also notes that 'the distinction between natural and built in Neolithic Orkney was frequently blurred and often manipulated' (Thomas 2016: 216). Several slabs incorporated into structures at the Ness of Brodgar exhibit natural markings similar to those that are incised or pecked. These are placed following the grammar of the latter, seemingly rendering meaningless any distinction between natural and carved.

The 'rock art' spectrum extends from clearly executed motifs imposed on 'clean'—sometimes prepared—flat surfaces, through to fluid designs influenced by contours and fissures, to those that incorporate, elaborate or emulate natural features and, ultimately, to those where evidence of human intervention is barely detectable. To this latter end of the continuum, I suggest we must also add those examples which appear to be entirely natural yet clearly demand attention. In some regions geological processes and/or weathering conditions have created concentrations of exposed rocks that appear heavily embellished. These marked surfaces are potentially an important layer of the prehistoric stonescape that should not be overlooked. We cannot record every geological feature we encounter, but we should perhaps aim to be more aware of them and their potential to illuminate the role(s) of rock art in creating relationships between people and places.

Encounters with decorated landscapes

The volcanically forged and ice-scoured valleys and fells of the English Lake District have many exposed rock surfaces that appear patterned or create curious silhouettes. Some of these surfaces drew the attention of prehistoric people who added their own marks. Here, I explore these responses through a series of distinctive rock art panels: Barber's Rock at Crummock Water, Rooking near Ullswater, and Broadgate Meadow in Grasmere village. First, however, I would like to discuss two areas in the Lake District that I surveyed in 2005 (Sharpe 2007: ch. 5), both of which bear striking natural decoration, with rock art identified close-by. (See Figure 2 for all locations).

Patterns from the past?

Although two carved panels have been recorded in Great Langdale in central Lakeland, little is documented regarding the naturally decorated rock exposures in the vicinity. In the valley bottom, the rock art site of Copt Howe has monumental proportions. Enormous blocks of andesitic tuff have tumbled, enclosing spaces in an event of 'accidental' megalithic architecture. The two largest boulders create a portal framing the Langdale Pikes at the head of the valley, directing the view towards the summer solstice sunset over the summits (Sharpe 2007: 323–327, 2008)—the source of stone for Group VI axes (Bradley and Edmonds 1993)—and the midwinter display when the snow-capped peaks are lit by the sun from the opposite direction.

In midsummer, the complex motifs on the vertical north-east face of the westernmost block are gradually illuminated from right to left as viewed from in front of the panel. The process lasts for about an hour, as the

mid-day sun moves higher and casts oblique shadows. The individual motifs have been much discussed, including their relationships with fissures and natural cupules (e.g., Beckensall 2002: 42–47; Bradley, this volume; Bradley *et al.* 2019; Sharpe and Watson 2010). No artificial cups appear to have been added, but rings were pecked around natural cupules both on the panel (Bradley and Watson 2021: fig. 1.5) and on a cobble recovered from its base during excavation (Bradley *et al.* 2019: fig. 15).

Several motifs, including multiple rings, chevrons and arcs, resemble those found in passage grave art, which flourished in the Boyne Valley between 3300 and 2900 BC (Eogan and Cleary 2017: ch. 4), an association observed by Stan Beckensall in an early account of the site (2002: 46). This connection, together with the 'architectural' form of the site which, by chance, appears to acknowledge the movement of the sun, indicates that the art is likely to be contemporary with the Irish passage graves (Bradley *et al.* 2019). However, prehistoric communities had been familiar with this landscape and its geology for many generations before this, through their endeavours to procure stone for their axes, activity dated to *c.* 3800–3000 BC (Edinborough *et al.* 2020). These distinctive boulders lying on the most direct route into the fells, focussed attention on the precious source of stone and the turning of the seasons. They were also marked by rows of natural hollows and would surely have been a well-known landmark for people making their way to the quarries, long before the 'passage grave' motifs were added.

Furthermore, if we look just beyond the site itself, to the many natural geological patterns further up the valley sides, we can perhaps find an additional (or alternative?) source of inspiration for the multi-ring motifs and chevrons. Not far from Copt Howe, several volcanic crags bear marks that reveal the processes of their ancient creation: linear arrangements of natural cupules, complex patterns of rings, waves, and ridges (Figure 6) often mistaken for rock art (Sharpe 2007: ch. 4). Perhaps the first prehistoric groups to visit the boulders or to encounter the curious natural patterns in the surrounding landscape may have believed the valley to have been previously inhabited by their own ancestors or by other ancient people. It seems very possible that the communities who pecked their motifs onto the already cupule-peppered panel at Copt Howe were adding to a well-established 'monument'. They were perhaps also referencing the 'ancient' patterns they had seen in the local landscape. Within generations, any distinction between found and made would fade as narratives were modified, enhanced, and reimagined.

Analogies with Irish passage graves are convincing and, indeed, similar motifs are present on monumental sites such as Long Meg, Little Meg, and Glassonby in the Eden Valley in Cumbria; there are clearly Irish influences present in eastern Cumbria. The Copt Howe panel is, however, a wholly unique example of such designs at an 'open-air' site in the central Lake District. Perhaps we should not be too hasty to make long-distance connections when inspiration for the motifs may lie much closer.

By way of contrast, I would like to note another Lakeland valley with geological patterns that I surveyed in 2005. The Wyth Burn flows northwards into the southern end

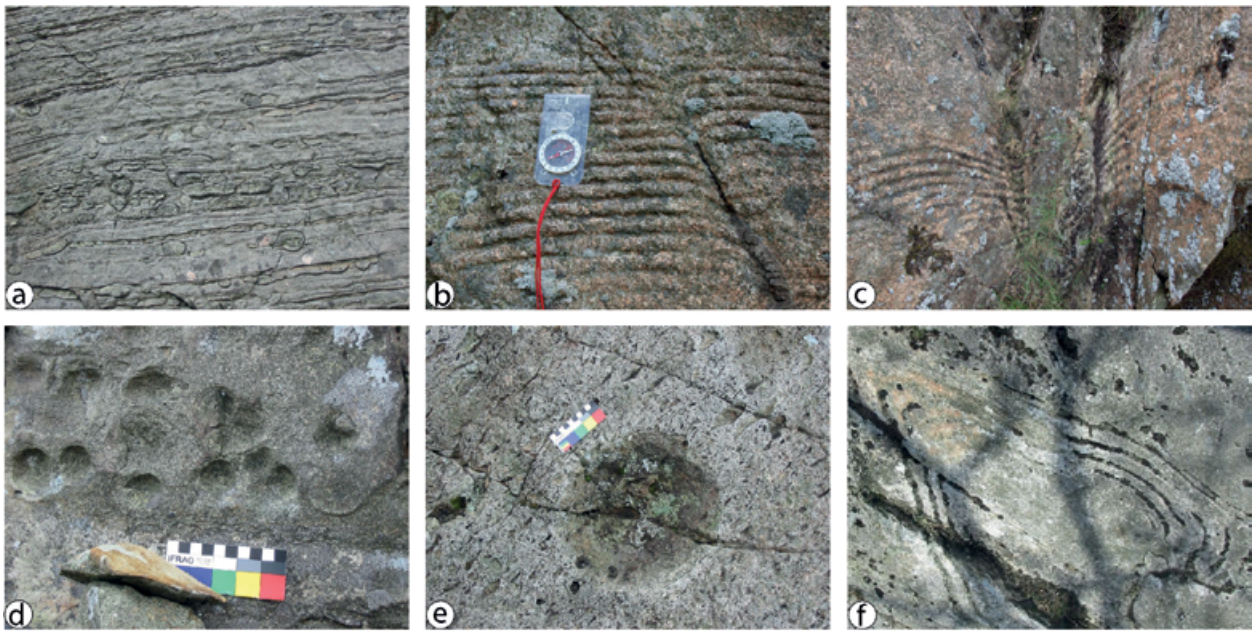

Figure 6. Naturally decorated rocks around the Great Langdale valley, Cumbria. Photos: a, d-f, K. Sharpe; b-c, P. Style.

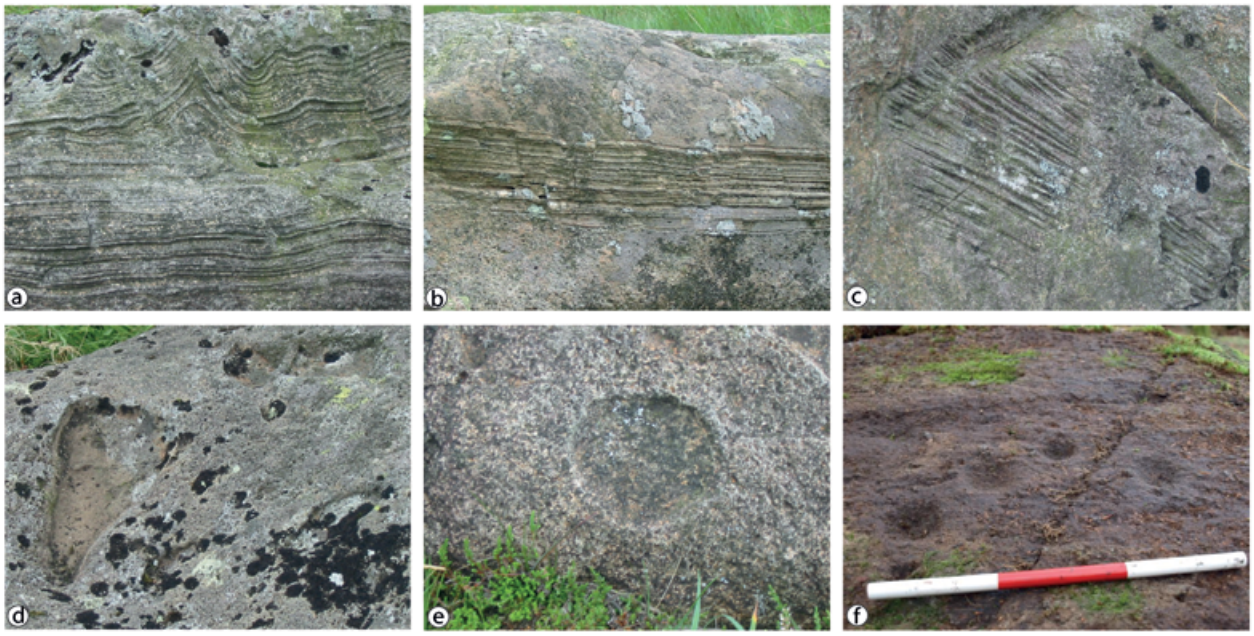

Figure 7. Naturally decorated rock surfaces in the Wythburn Valley, and (bottom right) pecked cup-marks on a nearby outcrop. Photos: K. Sharpe.

of Thirlmere Reservoir (Figure 2). Boulders lie scattered on both sides of the beck, apparently untouched by human activities. Many exhibit natural markings in the shape of 'footprints', diamonds, 'axes', discs, and wavy folds of strata (Figure 7a-e; Sharpe 2007: 166–174). Despite these visual precedents, a nearby outcrop bears only a small scatter of four cup marks (Style 2011; Figure 7f), very different in appearance to the natural features. In this case, no motifs or enhancements were added to the naturally marked boulders, but should we really dismiss these natural phenomena as 'just geological'? Was the placement of cup marks on a nearby surface coincidental or was this a response intended to create a dialogue with the existing markings whilst respecting their integrity? Although we cannot be certain of the perceptions or intentions of the carver(s), the concentration of natural patterns just metres away surely adds a further dimension to any interpretation of this panel.

Rock art as a response to Lake District geology

Evidence that naturally decorated sites were recognised and acknowledged comes from the many examples where rock art is applied to them – emulating features or integrating them into new designs, elaborating or enhancing them by making them deeper or larger. As noted above, some sites were already prominent monuments, the rock art providing a final layer of ornamentation. Three such 'monumental' rock art panels with pre-existing, natural decoration are presented here with both their natural and pecked features (predominantly cup marks) described in relation to the contours and materiality of the rock substrate.

Close to the northern end of Crummock Water and known locally as Barber's Rock (Sharpe 2007: ch 7), a prominent wedge-shaped outcrop emerges at an angle of around 30° from the summit of a small hillock – visible from a considerable distance (Figure 8). The smooth, sloping surface stretches for 24m in a sweeping crescent extending to 3.8m at its widest, its upper edge rounded, reminiscent of molten lava. On the northern side, the steep, jagged face has been partially quarried leaving a vertical wall reaching up to 4m in places. The outcrop is formed from Skiddaw Slate, uplifted and folded by the convulsions of the Caledonian upheaval, a process visible in the swirling, wavy patterns across the surface, suggestive of petrified waves. The effect is reinforced by the exposed eastern cross-section, which resembles a curling breaker, rising from a green swell.

To this unusual canvas were added more than 100 cup marks, varying from 2 to 18cm in diameter, the deepest being 6cm (Sharpe 2007: ch. 7). Most are positioned in a random scatter along the upper part of the slope with one small group of eight cups arranged in two parallel rows either side of a fissure. The absence of depictions of human figures or recognisable objects makes it difficult to relate the waves directly to the carvings as attempted at sites elsewhere, referenced above, but the striking surface patterns and dramatic geological folds make Barber's Rock particularly distinctive. This was very likely a prehistoric landmark for groups moving through the valley or travelling along the lake on seasonal journeys between their coastal homes and the central mountains, either following herds or to procure stone for their axes (Sharpe 2015, 2022).

Figure 8. 'Found' and 'made' decoration at 'Barber's Rock', Loweswater (Skiddaw slate). Top-left: glacially-smoothed sloping surface. Top-right: waves of folded strata. Bottom: cups pecked onto the swirling lines of the natural surface. Photos: K. Sharpe.

A similar site lies on the eastern edge of the Lake District, at the southern end of Ullswater, where a ridge of close-grained igneous rock of the Borrowdale Volcanic Series outcrops in several places. Several exposed surfaces are carved (Beckensall 2002: 20–28; Sharpe 2007: ch. 7), the most extensively decorated now located in the garden of a private residence in the hamlet of Rooking (Figure 9). The glacially-smoothed surface, measuring 4.5m × 4.0m, rises at 30° before flattening towards the upper edge then dropping away steeply, much like that at Barber's Rock. Natural fissures radiate from the upper southeast corner, one extending across the full width of the outcrop and another diagonally towards the lower northwest corner; smaller fissures cross horizontally. Prehistoric carvers added a series of perpendicular grooves, the longest measuring 7.3m, and may have widened, straightened, or extended some of the natural fissures. The resulting grid is filled with hundreds of small cup marks, some in rows, reminiscent of a Klimt design. Unlike at Barber's Rock, almost all the available space is used, demonstrating another form of response, both to a striking landmark and to the natural features already present.

A third example of the integration between rock art and natural features lies in Broadgate Meadow in the town of Grasmere in the central Lake District (Sharpe 2007: ch. 7; Figure 10). Yet another substantial, wedge-shaped outcrop has a footprint of 8 × 12m and rises to 4m at its highest point. It is perhaps worth noting that the site offers excellent views of another local landmark: the 'Lion and Lamb' rock formation at the summit of Helm Crag.

The form of the outcrop echoes that of Barber's Rock, and that at Rooking, and is similar to other panels recently identified, including two nearby examples, also in the village of Grasmere. The southern, eastern, and western sides of the outcrop are steep and craggy but the northern, glacially smoothed face slopes more gently, widening at the top to a flat area, partially covered by turf. Only this uppermost surface is carved, with over a hundred cup marks ranging in diameter from 3–12cm, the largest of which is also the deepest at 2cm. The cups of the most southerly group appear to be focused around a 'star' of intersecting fissures. Additional fissures form a square around the star, creating a series of triangular

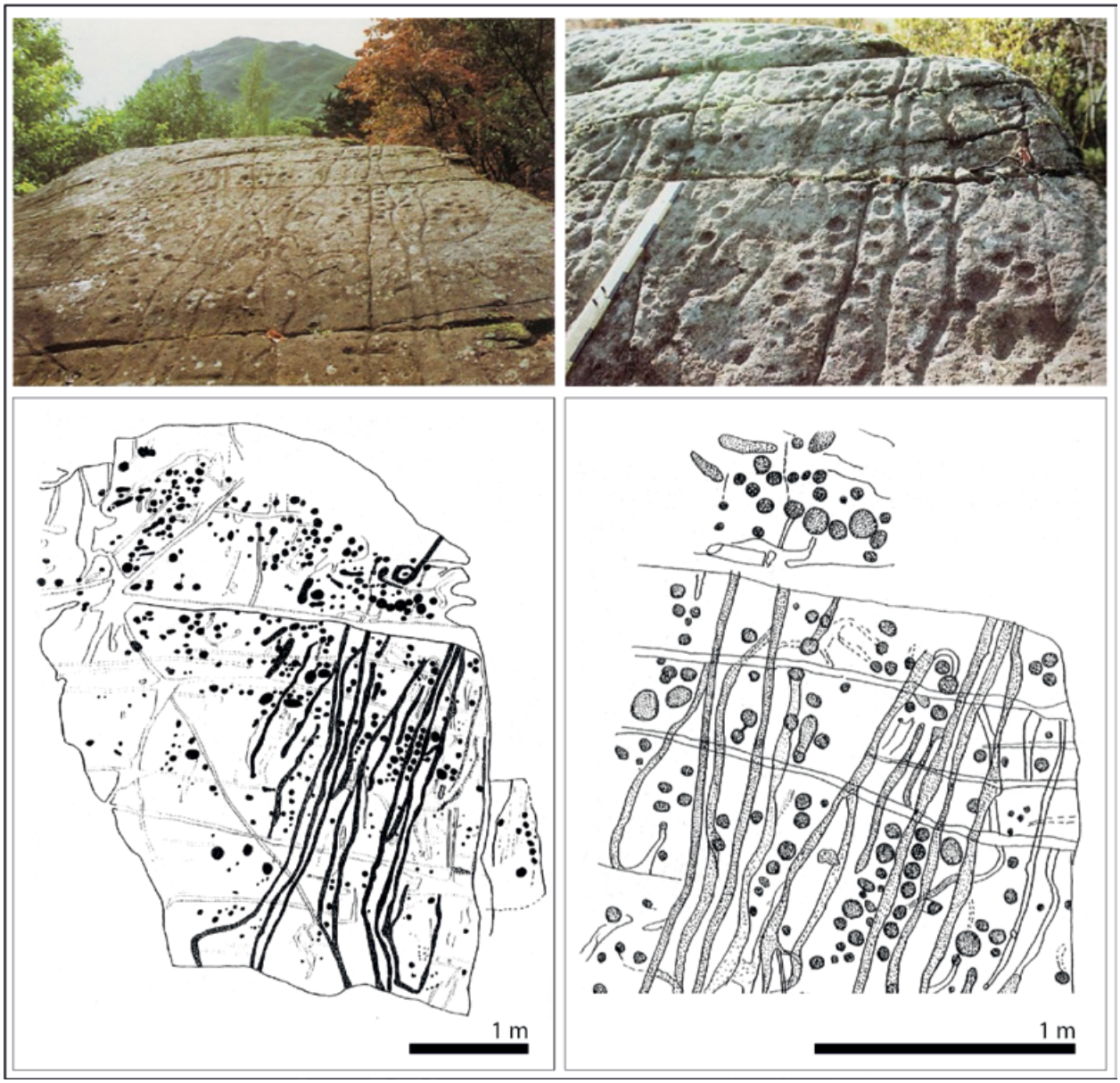

Figure 9. Complex patterns of 'found' and 'made' marks at Greenrigg, Patterdale. Top: the outcrop after cleaning with detail of the upper-right section (Photos: S. Beckensall). Below: interpretation of the same areas after Beckensall (2002: figs. 17 and 18).

spaces. Most of the cup marks lie within these frames; only two overlie fissures. Might this indicate that the fissures are intended to form part of the design? Were they perhaps considered the remains of earlier decoration, thus attracting further additions, just as graffiti often does today?

Although many rock art panels across Britain show less evidence of relationships between found and made marks, motifs on sites of more monumental proportions often seem to be associated with distinctive forms or geological features. This is not limited to volcanic landscapes like the Lake District: the sandstone geology of Northumberland also produces a variety of interesting forms and features. Roughting Linn (Figure 11) is perhaps the best-known rock art site in this region; it is certainly the largest (Beckensall 2001: 24–27). A remarkable series of deep natural hollows and channels on its upper surface surely intrigued prehistoric people. In places, 'tunnels' have formed in the sandstone, and several 'footprint'-shaped hollows are the result of differential weathering. To the lower slopes of this already heavily sculpted outcrop, people added many motifs of their own design. A review of other sites across Britain and Ireland would, no doubt, reveal additional relationships between 'art' and 'geology'.

Discussion

This exploration of 'found' monuments, naturally decorated landscapes and megaliths, monumental rock art sites and features augmented by rock art—

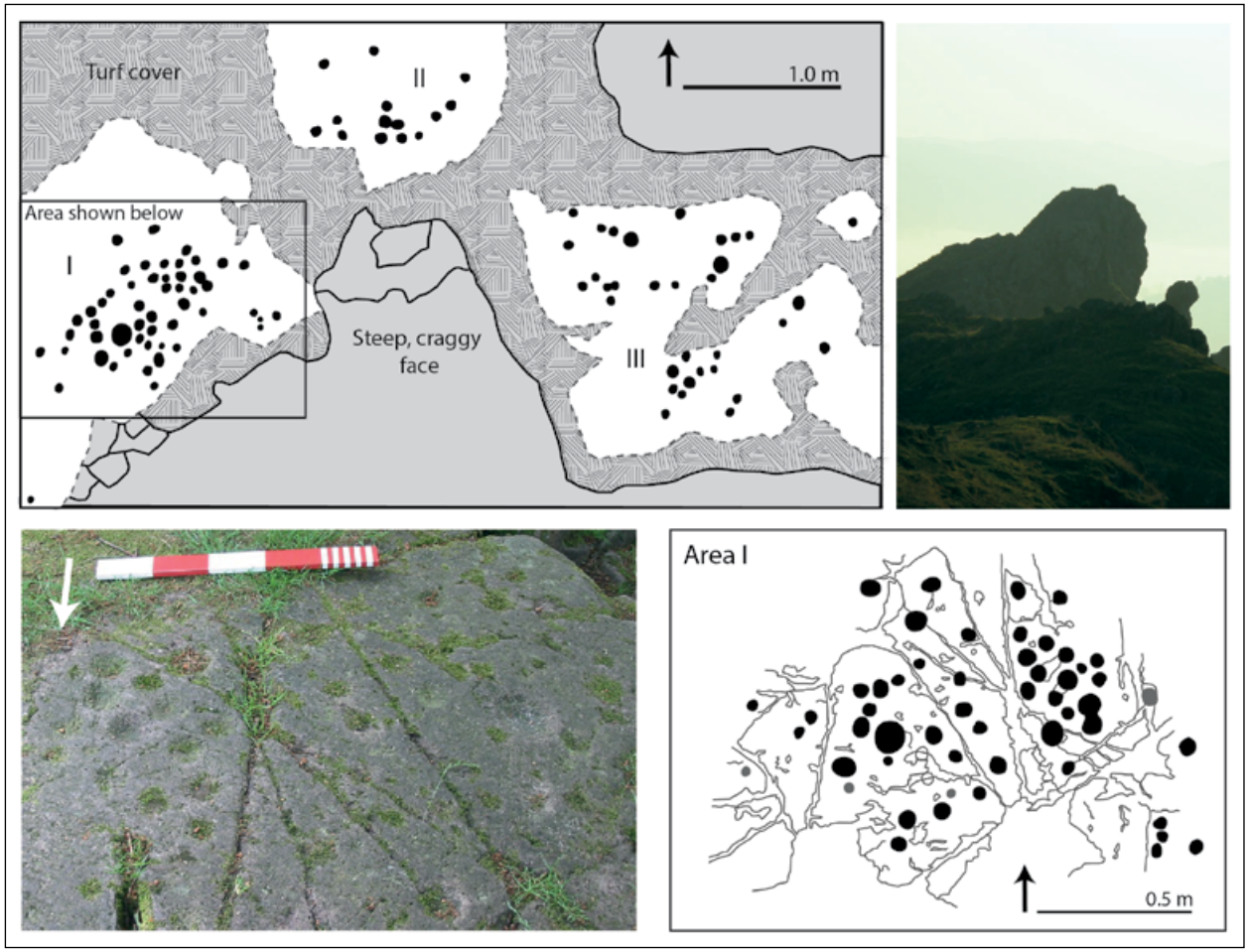

Figure 10. Broadgate Meadows, Grasmere. Top-left: the cup-marked area showing three groups of motifs. Top-right: 'Lion and Lamb' on Helm Crag as viewed from the outcrop. Bottom-left: cup marks focussed on a 'star' of fissures (viewed from the south). Bottom-right: detail of Area I (based on tracing in the field) showing cup marks and fissures. Images: K. Sharpe.

and variations and combinations—has demonstrated some of the ways in which prehistoric people engaged with and responded to the geological phenomena they encountered in the dramatic stonescapes of the Lake District. Their intimate relationship with stone is evident in the traces they left of quarrying, tool making and monument building, and this is also manifest in the ways their rock art emulated and incorporated natural features, and where motifs are interchangeable with similar 'found' examples.

The symmetrical forms and apparent 'composition' of some natural features perhaps led them to be viewed as the creation of ancestors or deities. As such, they may have been considered sacred – potent traces of the past and worthy of veneration. Alternatively, early surveyors venturing into new territory may have been wary of such features, potentially the marks of a powerful community who previously (or currently) occupied the area; they perhaps indicated a skilful—and maybe unfriendly or even dangerous—group in the neighbourhood. New marks may have been added either to honour or to neutralise the 'found' ones, although few prehistoric motifs directly overlie natural features but rather enhance or enclose them, perhaps suggesting the former is more likely. Such examples provide the clearest evidence of direct engagement with naturally 'decorated' rock surfaces; the presence of pecked cup marks around natural circular hollows is especially compelling.

Despite the often very close proximity of rock art motifs to similar natural features, the latter are rarely documented as they provide only circumstantial evidence of inspiration or referencing. With little data available, a comprehensive analysis is not currently possible. Extending and expanding our horizons when recording would allow us to appreciate more fully the extent to which prehistoric people valued the natural patterns and striking features in their environment, including those not apparently acknowledged by incorporation into monuments or the addition of rock art. These places may have been equally significant and played similar roles but have no obvious archaeological association (although excavation around them may prove otherwise). We cannot realistically survey all

Figure 11. Roughting Linn, Northumberland. Top: the monumental outcrop showing quarrying and large ring motifs. Middle: natural undulations, 'bridge', and 'footprint' created by erosion. Bottom-left: 'frieze' of penannular motifs. Bottom-right: natural channels down the steep, western face. Photos: K. Sharpe.

such features but some areas, as described here, have especially prominent or extensive natural decoration. Just as we now recognise the need to document the whole surface of rock art panels and to consider their landscape situation, in future it may be prudent to pay greater attention to any geological phenomena in the wider locality.

A new approach is needed as we begin to erode distinctions and to blur the boundaries between found and made, but can we ever hope to truly know how past individuals understood their environment? Some researchers think not, and it is often argued that we are in danger of simply projecting a version of our own (twenty-first century, Western) aesthetics and experience. At the same time, counter assertions that Neolithic societies had very different value systems and did not separate the sacred and secular aspects of their lives, or the ritual from the domestic, as we (supposedly) do today, are widely endorsed. Does all the evidence really support this?

Criado-Boado and Villoch-Vásquez (2000: 189) warn that 'the notion that we, when presented with a particular space, may discover the impact that this environment produced upon its [past] observers based on our own reaction is not only idealistic, but also maintains the illusion that patterns of subjectivity do not change but instead remain invariable independently of the social and historical context'.

Yet, several researchers of British prehistory have adopted approaches in which the embodied experience of the archaeologist in the present is used to access past interpretations of monuments and landscapes (notably Tilley 2004; Bender *et al.* 2007; Fraser 2004; Edmonds 1999; Cummings 2002; Cummings and Whittle 2004; Thomas 2008. See also Frodsham, this volume). They argue that it is sometimes necessary to reach beyond the evidence with more experiential approaches. For Tilley (2004: 201–202), the human body links present and past, such that encounters with monuments or landscapes in the present can provide insights into how past peoples experienced the same places. Such approaches have been strongly critiqued, notably by Brück (2005) and Fleming (2005, 2006). One potential solution is suggested by Criado-Boado and Villoch-Vásquez (2000: 190) who argue that subjective conclusions can be avoided by constructing an 'archaeology of perception'. They advocate studying perception on a social scale rather than at the individual level, to determine 'the social systems that guide, orientate and predetermine perception', and which reveal past perceptions through their materialisation.

Such prehistoric perceptions of the world may be difficult to pin down. Many researchers emphasise the complex, fluid, and variable ways in which prehistoric people perceived the world. Concepts like 'ritual depth' (Díaz-Andreu 2001) and 'dynamic nominalism' (Hacking 2002) express multidimensional, interlaced layers of meaning which were constantly renegotiated; arenas and activities once strictly separated (and studied independently) are redefined as 'intertwined' and 'interdependent'. Within this changeable world, 'landscape' is argued to exist through the perceptions and experiences of the individuals dwelling within and engaging with it, accepting that these will be related to gender, age and status, and will evolve depending on prevailing social and economic conditions (Hirsch and O'Hanlon 1995; Knapp and Ashmore 1999).

Through this sympathetic approach, rock art can certainly be seen as the reflection of an intimate connection with the land, and particularly with stone. But can we edge towards the elusive goal of understanding the motivations and intentions of prehistoric artists without imposing our own worldview – or, indeed, an imagined one? Perhaps by observing more closely—and more widely—the manifestations of past responses to elements of the natural world, even as they are presented to our modern sensitivities, we might begin to access the perceptions of prehistoric communities. That would, perhaps, constitute a more 'apt response' to the complex vistas of blurred lines and grey areas we are now discovering, than the current black and white dichotomy of 'rock art' and 'not rock art'.

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References

Barnatt, J. and M. Edmonds. 2002. Places apart? Caves and monuments in Neolithic and earlier Bronze Age Britain. *Cambridge Archaeological Journal* 12: 113–129.

Beckensall, S. 2002. *Prehistoric Rock Art in Cumbria*. Stroud: Tempus.

Bender, B., S. Hamilton and C. Tilley. 2007. *Stone Worlds: Narrative and Reflexivity in Landscape Archaeology*. Walnut Creek: Left Coast Press.

Bradley, R. 1997. *Rock Art and the Prehistory of Atlantic Europe. Signing the Land.* London: Routledge.

Bradley, R. 2000. *An Archaeology of Natural Places.* London: Routledge.

Bradley, R. 1998. Ruined buildings, ruined stones: enclosures, tombs and natural places in the Neolithic of south-west England. *World Archaeology* 30: 13–22.

Bradley, R. and M.R. Edmonds. 1993. *Interpreting the Axe Trade: Production and Exchange in Neolithic Britain*. Cambridge: Cambridge University Press.

Bradley, R., A. Jones, L. Nordenborg Myhre and H. Sackett. 2002. Sailing through stone: carved ships and the rock face at Revheim, Southwest Norway. *Norwegian Archaeological Review* 35(2): 109–118.

Bradley, R. and T. Phillips. 2008. Display, disclosure and concealment: the organization of raw materials in the chambered tombs of Bohuslän. *Oxford Journal of Archaeology* 27: 1–13.

Bradley, R., A. Watson and P. Style. 2019. After the axes? The rock art at Copt Howe, north-west England, and the Neolithic sequence at Great Langdale. *Proceedings of the Prehistoric Society* 85: 177–192.

Bradley, R. and A. Watson. 2021. Langdale and the northern Neolithic, in G. Hey and P. Frodsham (eds) *New Light on the Neolithic of Northern England*: 7–16. Oxford: Oxbow Books.

Brück, J. 2005. Experiencing the past? The development of a phenomenological archaeology in British prehistory. *Archaeological Dialogues* 12: 45–72.

Cardoso, J.L. and R. Boaventura. 2011. The megalithic tombs in the region of Belas (Sintra, Portugal) and their aesthetic manifestations. *Trabajos De Prehistoria* 68(2): 297–312.

Collingwood, W.G. 1901. Tumulus at Grayson-lands, Glassonby, Cumberland. *Cumberland and Westmorland Antiquarian and Archaeological Society* 1 (Second Series): 295–299.

Cooney, G., W. Megarry, M. Markham, B. Gilhooly, B. O'Neill, J. Gaffrey, R. Sands, A. Nyland, T. Ballin, J. Murray and A. Sheridan, 2019. Tangled up in blue. The role of reibeckite felsite in Neolithic Shetland, in A. Teather, P. Topping and J. Baczkowski (eds) *Mining and Quarrying in Neolithic Europe* (Neolithic Studies Group Seminar Papers 16): 49–66. Oxford and Philadelphia: Oxbow Books.

Criado-Boado, F. and V. Villoch-Vázquez. 2000. Monumentalizing landscape: from present perception to the past meaning of Galician megalithism (north-west Iberian Peninsula). *European Journal of Archaeology* 3(2): 188–216.

Cummings, V. 2002. Experiencing texture and transformation in the British Neolithic. *Oxford Journal of Archaeology* 21: 249–261.

Cummings, V. and A. Whittle. 2004. *Places of Special Virtue: Megaliths in the Neolithic Landscapes of Wales.* Oxford: Oxbow Books.

Darvill, T. 2002. White on blonde: quartz pebbles and the use of quartz at Neolithic monuments in the Isle of Man and beyond, in A. Jones and G. MacGregor (eds) *Colouring the Past: The Significance of Colour in Archaeological Research*: 73–92. Oxford, New York: Berg.

Darvill, T. 2019. Carn Menyn and the stones of south-west Wales, in A. Teather, P. Topping and J. Baczkowski (eds) *Mining and Quarrying in Neolithic Europe* (Neolithic Studies Group Seminar Papers 16): 115–132. Oxford and Philadelphia: Oxbow Books.

Díaz-Andreu, M. 2001. Marking the landscape. Iberian post-paleolithic art, identities and the sacred, in G. Nash and C. Chippindale (eds) *European Landscapes of Rock-art*: 158–175. London: Routledge.

Edinborough, K., S. Shennan, A.Teather, J. Baczkowski, A. Bevan, R. Bradley, G. Cook, T. Kerig, M.P. Pearson, A. Pope and P. Schauer. 2020. New radiocarbon dates show Early Neolithic date of flint-mining and stone quarrying in Britain. *Radiocarbon* 62(1): 75–105.

Edmonds, M. 1999. *Ancestral Geographies of the Neolithic. Landscapes, Monuments and Memory*. London: Routledge.

Eogan, G. and K. Cleary. 2017. *The Passage Tomb Archaeology of the Great Mound at Knowth.* Dublin: Royal Irish Academy.

Ferguson, R.S. 1883. Stone circle at Gamelands, Bland House Brow, Township of Raisbeck, Parish of Orton, Westmorland. *Transactions of the Cumberland and Westmorland Antiquarian and Archaeological Society* 6 (First Series): 183–185.

Fleming, A. 2005. Megaliths and post-modernism: the case of Wales. *Antiquity* 29: 921–932.

Fleming, A. 2006. Post-processual landscape archaeology: a critique. *Cambridge Archaeological Journal* 16: 267–280.

Fraser, S. 2004. Metaphorical journeys: landscape, monuments, and the body in a Scottish Neolithic. *Proceedings of the Prehistoric Society* 70: 129–151.

Hacking, I. 2002. *Historical Ontology*. Cambridge (MA): Harvard University Press.

Hirsch, E. and M. O'Hanlon (eds). 1995. *The Anthropology of Landscape. Perspectives on Place and Space.* (Oxford Studies in Social and Cultural Anthropology. Cultural Forms). Oxford: Clarendon Press.

Hodgson, E. 2007. *The Bowder Stone - A History.* Carlisle: P3 Publications.

Hood, S. 2005. New evidence for prehistoric activity in and around Dean Parish. *Transactions of the Cumberland and Westmorland Antiquarian and Archaeological Society* 5 (Third Series): 1–10.

Janik, L., C. Roughley and K. Szczesna. 2007. Skiing on the rocks: the experiential art of fisher-gatherer-hunters in prehistoric northern Russia. *Cambridge Archaeological Journal* 17: 297–310.

Jones, A. 1999. Local colour: megalithic architecture and colour symbolism in Neolithic Arran. *Oxford Journal of Archaeology* 18(4): 339–350.

Jones, A. 2005. Between a rock and a hard place: rock art and mimesis in Neolithic and Bronze Age Scotland in V. Cummings and A. Pannett (eds) *Set in Stone. New Approaches to Neolithic monuments in Scotland*: 107–117. Oxford: Oxbow Books.

Jones, A.M. 2013. Memory, myth, place and landscape inhabitation: a perspective from the south-west peninsula, in A.M. Chadwick and C.D. Gibson (eds) *Memory, Myth, Place and Long-term Landscape Inhabitation*: 55–75. Oxford and Oakville: Oxbow Books.

A. Jones and G. MacGregor (eds). 2002. *Colouring the Past: The Significance of Colour in Archaeological Research.* Oxford, New York: Berg.

Knapp, A.B. and W. Ashmore. 1999. Archaeological landscapes: constructed, conceptualized, ideational, in W. Ashmore and A.B. Knapp (eds) *Archaeologies of Landscape: Contemporary Perspectives*: 1–30. Oxford: Blackwell Publishers.

Lynch, F. 1998. Colour in prehistoric architecture, in A. Burl, A.M. Gibson and D.D.A. Simpson (eds) *Prehistoric Ritual and Religion: Essays in Honour of Aubrey Burl*: 62–67. Stroud: Sutton.

MacGregor, G. 2002. Making monuments out of mountains: the role of colour and texture in the constitution of meaning and identity at recumbent stone circles, in A. Jones and G. MacGregor (eds) *Colouring the Past: The Significance of Colour in Archaeological Research*: 141–158. Oxford, New York: Berg.

Mayor, A. 2005. Geomythology, in R. Selley, R. Cocks and I. Palmer (eds) *Encyclopaedia of Geology*: 644–647. Amsterdam: Elsevier.

Mercer, R. 1981. Excavations at Carn Brea, Illogan, Cornwall. *Cornish Archaeology* 20: 1–204.

Mitchell, G.F. 1992. Some notes on non-local cobbles at the entrances to the passage graves at Newgrange

and Knowth, County Meath. *Journal of the Royal Society of Antiquaries of Ireland* 122: 128–145.

National Trust. n.d. The Bowder Stone, viewed 11 Aug 2020, https://www.nationaltrust.org.uk/borrowdale-and-derwent-water/features/the-bowder-stone

O'Kelly, M.J. 1982. *Newgrange. Archaeology, Art and Legend*. London: Thames and Hudson.

Parker Pearson, M. 2019. Stonehenge's bluestones, in Teather, A., P. Topping and J. Baczkowski (eds) *Mining and Quarrying in Neolithic Europe: A Social Perpsective* (Neolithic Studies Group Seminar Papers 16): 83–100. Oxford and Philadelphia: Oxbow Books.

Priuli, A. 2002. *Valcamonica: Valley of Prehistory*. Capo di Ponte: Priuli Edizioni.

Scarre, C. 2004. Choosing stones, remembering places: geology and intention in the megalithic monuments of western Europe, in N. Boivin and M.A. Owoc (eds) *Soils, Stones and Symbols. Cultural Perceptions of the Mineral World*: 187–202. London: UCL Press.

Sharpe, K. 2007. Motifs, monuments and mountains: prehistoric rock art in the Cumbrian landscape. Unpublished PhD dissertation. University of Durham.

Sharpe, K. 2008. Rock art and rough-outs. Exploring the sacred and social dimensions of prehistoric carvings at Copt Howe, Cumbria, in A. Mazel, G. Nash and C. Waddington (eds) *Art as Metaphor: The Prehistoric Rock-Art of Britain*: 151–173. Oxford: Archaeopress.

Sharpe, K. 2015. Connecting the dots. Cupules and communication in the English Lake District. *Expression* 9: 109–116.

Sharpe, K. 2022. Patterns of movement. Rock art, roughouts, and route-ways in the English Lake District, in P.L. Polkowski and F. Förster (eds) *Rock Art in Landscapes of Motion. Proceedings of a Session of the 20th International Rock Art Congress IFRAO in Valcamonica/ Darfo Boario Terme, Italy, 29th August to 2nd September 2018.* (British Archaeology Reports International Series): 131–152. Oxford: BAR Publishing.

Sharpe, K. and A. Watson. 2010. Moving images: interpreting the Copt Howe petroglyphs, in T. Barnett and K. Sharpe (eds) *Carving a Future for British Rock Art*: 57–64. Oxford: Oxbow Books.

Shepherd, A. 2000. Expressing identity in a Neolithic community, in A. Ritchie (ed.) *Neolithic Orkney in its European Context*: 139–159. Cambridge: McDonald Institute for Archaeological Research University of Cambridge.

Style, P. 2011. Recent rock art finds from the Cumbrian mountains. *Newsletter of the Cumberland and Westmorland Antiquarian and Archaeological Society* 67: 5.

Thomas, A. 2016. *Art and Architecture in Neolithic Orkney*. Oxford: Archaeopress.

Thomas, J. 2008. Archaeology, landscape, and dwelling, in D. Bruno and J. Thomas (eds) *Handbook of Landscape Archaeology*: 300–306. Abingdon: Routledge.

Tilley, C. 1996. The power of rocks: topography and monument construction on Bodmin Moor. *World Archaeology* 282: 161–176.

Tilley, C. 2004. *The Materiality of Stone: Explorations in Landscape Phenomenology.* Oxford: Berg.

2

Identifying changing ideologies: rock art on and around Neolithic burial monuments in Wales

George H. Nash

Introduction

In this contribution, I discuss a small but significant number of Neolithic burial-ritual monuments that possess rock art, and occupy the fertile valleys and hinterlands of upland and coastal Wales. These ten stone-chambered sites are in three regions: north-west, south-west and south Wales. The precise date that they were engraved is unknown, but they fall into a much wider distribution that extends across much of Atlantic Europe, and are therefore contemporary with the construction, use and abandonment of stone-chambered monuments. Many of the motifs and symbols used on Neolithic stone-chambered monuments are applied, I believe during the Bronze Age, to open-air locations in Wales and northern Britain. Engravings such as concentric circles, cup marks, lines and spirals occur in and on monuments, usually on the upper face of capstones and occasionally on uprights but also sometimes on rock outcropping close to a monument.

A history of research

Available antiquarian and historic literature on the megalithic monuments in western Britain and Ireland is extensive, however it is not until the publication of J.Y. Simpson's *On Archaic Sculpturings of Cups, Circles, Etc. Upon Stones and Rocks in Scotland, England and other Countries* in 1867 that specific detail on rock art sites was recorded. Featured in this volume were the Welsh and Border sites of Bachwen (also referred to as Clynnog-Fawr) and the Calderstones in Liverpool. During the latter part of the nineteenth century and the early part of the twentieth century, when photography had become a preferred publishable medium, a series of surveys around Wales were undertaken by seasoned antiquarians (Baynes 1912; Grimes 1936; RCAM 1925, 1937).

Beyond Simpson's book, very little in terms of detailed research into prehistoric rock art and its association with Neolithic burial monuments occurred until the late 1920s when an intensive programme of fieldwork was undertaken by W.J. Hemp at Bryn Celli Ddu, Ynys Môn (Anglesey) (Hemp 1926, 1930 and 1938). At the time of excavation, the monument had suffered the ravages of time as well as several unofficial investigations during the antiquarian period (see Skinner 1802). Despite its ruined state, Hemp managed to excavate what he believed to be a two-phased site with the initial phase being a henge (Hemp 1930).

The next—and most impressive—rock art discovery was made by Glyn Daniel and Terrence Powell at another Neolithic passage grave known as Barclodiad y Gawres, again in Ynys Môn (Powell and Daniel 1956). Excavations in 1952 and 1953 exposed the full extent of a passage and chamber.

Between the excavation of Barclodiad y Gawres in the early 1950s and the publication of several volumes focusing on Welsh megaliths during the late 1960s, little research appears to have been undertaken. The publication of *Megalithic Enquiries* (Powell *et al.* 1969) revealed the significance of rock art from the two Ynys Môn passage graves (mentioned above), as well as reporting on nine shallow cup marks on the capstone of Ty Newydd (Ynys Môn) and the 115 or more cup marks on the capstone at Bachwen (on the Llyn Peninsula).

Further insights, albeit of a philosophical nature, were later postulated by Christopher Tilley, who referred to certain monuments using landscape philosophy (phenomenology) to make a valid attempt to interpret their landscape setting and distribution through personal and collective experience (1994). Using some of the ideas expressed by Tilley and supporting it with previous empiricist research, the author (Nash 2006a) produced detailed descriptions and discussions on rock art associated with megalithic monuments in south-west Wales and north Wales, the emphasis though, being on monument architecture and landscape.

By far the most focused research on prehistoric rock art to date, including the Neolithic sites identified within this chapter, is from John Sharkey in his book *The Meeting of the Tracks: Rock Art in Ancient Wales* (2004). This book pulls together all the then-known Neolithic and Bronze Age rock art sites. Sharkey's approach is one of analogy and geographic bias, based upon selected north-west Wales sites such as Barclodiad y Gawres

and Bryn Celli Ddu. Sharkey provides the reader with a useful list of later prehistoric sites which, at the time of his publication, numbered 45 (including Bronze Age cup-marked sites and Celtic/Iron Age head sculptures). Sharkey also offers a tantalising insight into the history of the archaeological processes involved with certain sites.

Since 2004, the focus has been on the research of individual sites, although a summary of discoveries in Ynys Môn and north-west Wales was produced by Nash *et al.* (2005). In 2007, members of the Bristol-based Clifton Antiquarian Club produced reports on several Neolithic chambered burial-ritual sites including Cist Cerrig and Caer-Dyni (both on the Llyn Peninsula). At both sites, additional rock art was found, mainly cup marks. Research also concentrated on Garn Turne in central north Pembrokeshire, where a single cup-and-ring was discovered on the capstone (Nash 2006b), and at the Garn Wen cemetery on Strumble Head, Pembrokeshire, where cup marks were found on nearby exposed rock outcrop (Nash 2006a). The Welsh Rock Art Organisation (WRAO) excavated the cup-marked Trefael Stone in north Pembrokeshire between 2009 and 2012 (Nash *et al.* 2011, 2020), and between 2016 and 2019 surveyed and excavated within the immediate landscape of the Trellyffaint chambered dolmen, which has more than 75 cup marks on its capstone (Nash *et al.* 2021).

Making and marking megaliths

In Wales, there are around 130 extant monuments (Figure 1); more existed prior to the eighteenth century and the *Age of Enlightenment* when protection through myth and superstition was replaced by science, reasoning and religious scepticism. A significant number of monuments with rock art were probably the victim of such destructive forces. Using observations and what is sometimes fragmentary evidence in Wales, the research questions I wish to ask are:

- Was rock art commissioned before construction, whilst the monument was being constructed, or during subsequent use?
- Does the Welsh rock art, particularly from the sites of Barclodiad y Gawres and Bryn Celli Ddu, form part of a regional tradition of the Atlantic façade (as defined below)?
- Can inferences be made in terms of landscapes and monuments that contain rock art?
- Of the 130 or so extant Neolithic burial-ritual monuments in Wales, why do so few contain rock art?

The monuments identified by the author as possessing rock art account for just a small percentage of the potential number that were in use during a 2000-year period in Wales. Roughly half the assemblage is concentrated in north-west Wales, the other half being in south-west Wales; both areas, according to Fowler (1983), had potential year-round agriculture due to the favourable climate and soil conditions.

The rock art style present on or around each monument falls within the 11 categories of style complexity recognised by Shee-Twohig (1981). Apart from the Calderstones site in Liverpool, it is probable that Barclodiad y Gawres is the most ornately engraved monument in western Britain. This passage grave monument is similar in its architectural style to those found in Ireland; the blueprint for its construction and artistic endeavour probably originated across the Irish Sea. Between 1952 and 1953, Powell and Daniel's team uncovered five engraved stones within the chamber area, several of which were partly exposed before excavation (Baynes 1912; Powell and Daniel 1956).

The artistic style of the rock art from the Barclodiad y Gawres monument is geometric in form with the predominant designs being chevrons, lozenges and zigzag lines. These motifs occur on four of the five stones within the chamber and are essentially hidden from outside view. Moreover, they cannot be seen with natural light (from the outer passage area). On Stones C3, C13 and C16, large spirals and zigzag lines are present while on Stone C3, spirals dominate. The rock art from this monument is probably contemporary with other engraved passage grave monuments found in Ireland. Uncovered during the Powell and Daniel excavation, within the floor of the chamber area was a hearth that would have provided essential illumination for seeing the rock art. The most ornately engraved stone within this monument is Stone C16 (Figure 2). The motifs on this stone include zigzags, wavy lines and a single faintly pecked spiral; they are arranged in such a way to possibly replicate the landscape outside. East of the monument and in full view is the Snowdonia Mountain range and the open water of the Menai Straits. Although impossible to prove, could the spiral represent the rising sun or a setting moon and the zigzag and wavy lines the mountains and the sea (Figure 3)?

Approximately 25km east of Barclodiad y Gawres is the passage grave of Bryn Celli Ddu. This monument was more than likely constructed and in use at the same time, at around 3000 BC. At Bryn Celli Ddu, the rock art comprises a crude spiral within the chamber; it is engraved using a metal tool and therefore not contemporary with the original use of the monument. More impressive is a complex serpentine-style carving that is engraved onto three faces of a large monolith (Figure 4). This stone was discovered lying prostrate next to a pit. The stone and pit were centrally located and west of the chamber (Hemp 1930). It is believed

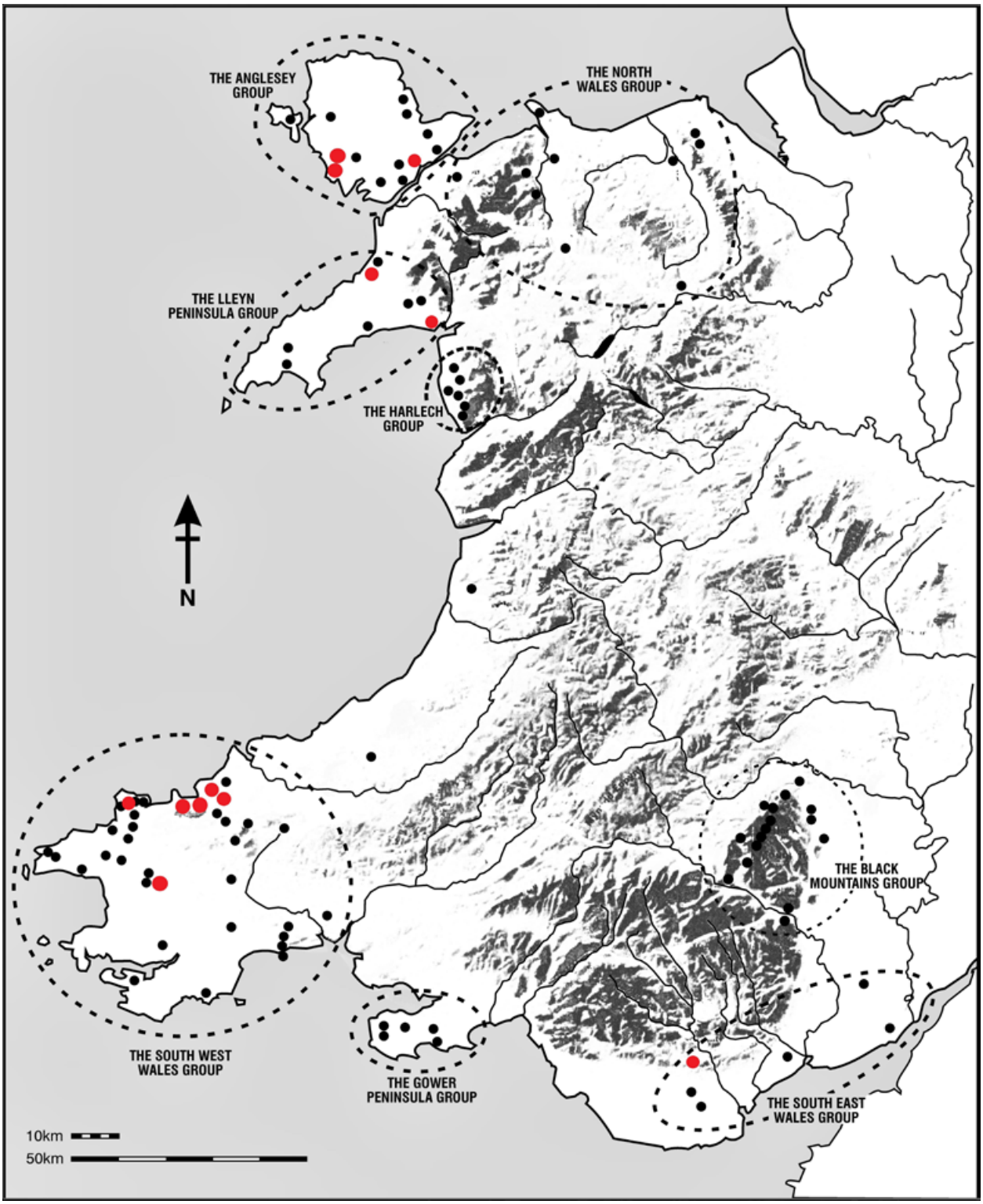

Figure 1. Distribution of Welsh Neolithic chambered burial-ritual monuments with rock art (red dots) and without (black dots).

that the stone—known as the *Pattern Stone*—and pit belonged to an earlier henge phase, however, the design can still be considered to belong to the megalithic art (or 'passage grave') tradition.

As well as rock art within the monument complex, engraved cup marks were also found on a nearby rock outcrop to the west of Bryn Celli Ddu (Nash *et al.* 2005; Figure 5). The cup marks (numbering around 32) and two monoliths—the Bryn Celli standing stone and the Tyddyn-Bach standing stone—along with a now-lost passage grave and various natural topographic features, probably formed part of an extensive, ritualised landscape. The cup-marked outcrop would

Figure 2. The complex engravings on Stone C16 at Barclodiad y Gawres showing the repeated zigzag lines and spiral.

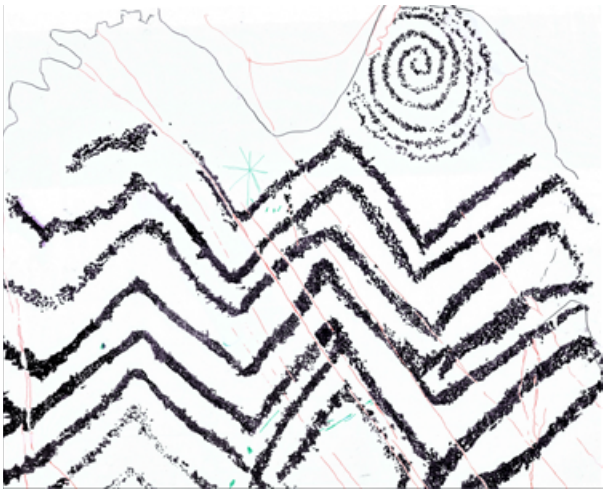

Figure 3. Recent tracing of the upper section of Stone 16 at Barclodiad y Gawres (courtesy of the WRAO).

have provided an ideal elevated platform from which to observe (from a distance) the ritual activity around the monument.

Located south of Ynys Môn and occupying the coastal fringes of the Llyn Peninsula are a few portal dolmen-type monuments with single and multiple cup marks. The Bachwen monument is a 'classic' portal dolmen that has expansive views of the sea (the northern part of Cardigan Bay) to the west and the dramatic series of jagged mountain peaks to the south and east. The monument has the largest number of cup marks of any burial-ritual monument in western Britain (Hemp 1926). The capstone is supported by four uprights and dips westwards towards the sea – an architectural trait occurring with many portal dolmens of this type on either side of the Irish Sea. The southern section of the upper face of the capstone is covered with around 115 cup marks of varying size and depth and a small number of linear grooves and lines (Figure 6).

To the south of Bachwen, east of the medieval town of Criccieth and, again, overlooking the sea (Cardigan Bay) is a small dolmen with the remains of an accompanying mound, known as Caer-Dyni. The surviving architecture—the uprights, chamber and

Figure 4. Replica of the Pattern Stone standing west of the chamber of Bryn Celli Ddu.

Figure 5. A cluster of three cup marks located on nearby rock outcrops, west of Bryn Celli Ddu.

fallen capstone—suggests it is a Late Neolithic or Early Bronze Age burial site. Located on the outer face of the south-western upright (rather than on the upper face of the capstone) are around 14 shallow cup marks, five of which occupy the southern face (Figure 7). This discovery was made by members of the WRAO in 2006 (Nash *et al.* 2007).

South-east of Caer-Dyni is the Cist Cerrig monument, which stands within an undulating landscape with the mountain of Moel y Gest to the north-east and the sea to the south-west (Figure 8). Although this damaged monument (with missing capstone) does not have rock art, a vertical row of 12 cup marks is present on a nearby north-west facing outcrop (Hemp 1938. Figure 9). Further cup marks are recorded along field boundaries to the north, suggesting that a large, ritualised landscape or procession route was delineated by cup-marked rocks outcropping around the monument (e.g., Children and Nash 2001: 89).

Moving southwards

From 2009, the WRAO undertook a programme of archaeological investigation of Welsh Neolithic burial-ritual sites containing rock art. The first of these was the standing stone site of Trefael in northern Pembrokeshire, one of seven Neolithic burial-ritual sites that surround the Nevern Valley and overlook the north-western section of Mynydd Preseli. The seven sites vary in architectural style and, arguably, were each in use at different times during the Neolithic period.

The Trefael site was originally considered to be a standing stone dating to the Bronze Age but following excavation, it became clear that the monolith formed part of a complex monument, probably a Neolithic portal dolmen (Nash *et al.* 2011, 2020). The so-called standing stone, tilting westwards, is decorated with more than 75 cup marks (Figures 10 and 11). Uncovered immediately west of the stone (following a geophysical survey) were

Figure 6. The southern section of the Bachwen capstone.

Figure 7. The Caer-Dyni with fallen capstone and cup marks on the western upright.

Figure 8. Uprights forming a chamber belonging to Cist Cerrig.

Figure 9. Cup marks are found on rock outcrops to the south-west of the Cist Cerrig monument (after Hemp 1938).

the remains of a juvenile cremation that was radiocarbon dated to 3653 ± 45 BP (2200–1900 cal BC) (Nash *et al.* 2020), along with the (sub-surface) architecture and artefact deposition of a disturbed burial chamber. It is very likely that the cup-marked stone performed a similar role to the cup-marked capstones in other Welsh monuments, such as those at Bachwen and Trellyffaint.

In 2015, the WRAO turned their attention to the Neolithic dolmen of Trellyffaint, approximately 2km north-east of Trefael. This stone-chambered monument with more than 75 cup marks upon the upper face of its capstone was the focus of a measured monument survey, along with a geophysical survey that extended some 40m around its denuded mound. The cup marks

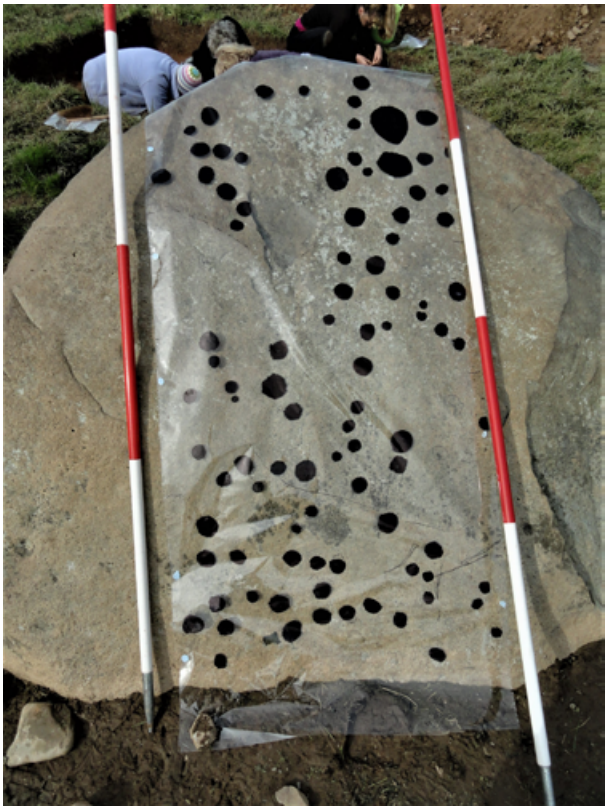

Figure 10. The cup-marked capstone of Trefael during excavation in 2009.

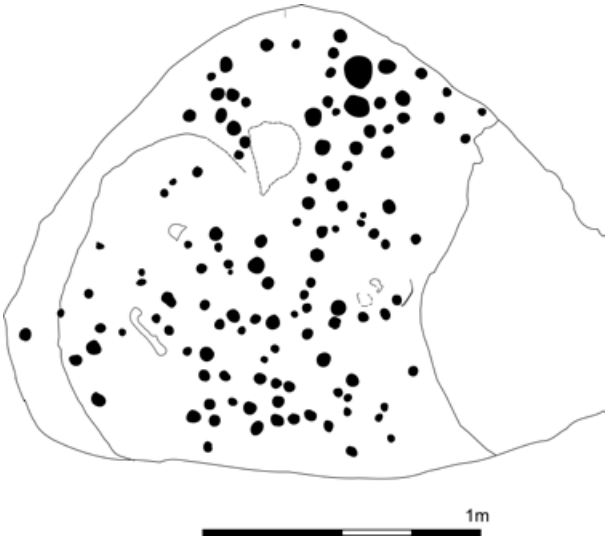

Figure 11. A tracing of the Trefael capstone made by the WRAO.

were recorded using tracing and rectified photographic survey techniques including the use of oblique lighting (Figure 12). Cup marks present on this monument were noted in many antiquarian and archaeological references including the Royal Commission inventory (RCAM 1925) and Daniel (1950) however the WRAO was the first team to record the motifs using night-time photography. As at the nearby Trefael monument, sections of the dislodged capstone are missing.

Figure 12. Obliquely-lit image of the upper face of the capstone at Trellyffaint.

South-west of Trellyffaint and Trefael is the upland site of Garn Gilfach, which is sited on a small ridge below the large, jagged outcrop of Strumble Head, a small jut of land that extends into Cardigan Bay. The engraved capstone sits over a rock-cut chamber pit that was cut and underpinned probably whilst the capstone lay *in situ*. The monument comprises a large, low capstone (4.6m × 2.5m) supported by four uprights. On the upper face of the capstone are cut two triangular voids of unknown date and use (Figure 13). It is possible that the voids are historical rather than Neolithic. As far as the author is aware, no engravings of this shape or size exist elsewhere.

Within the locality of Garn Gilfach and some way inland and away from open water is one of Wales' largest Neolithic stone-chambered monuments, known as Garn Turne, with its partly destroyed and/or confused entrance, V-shaped façade area, and massive capstone (measuring 5m × 4.1m and weighing around 60 tonnes). The capstone is formed from (intrusive) hard igneous hydroclastite pillow lavas, volcanically created underwater, dating to around 430 million years ago (Neville George 1970: 28). The upper surface of the capstone is pitted and weathered with very little surface lamination. In its north-eastern corner is a clear cup-and-ring mark (Nash 2006b). The ring measures approximately 14cm in diameter whilst the cup mark is 5cm in diameter. The ring has been created by human agency, with several sections incomplete where it extends over a hard quartz vein. Inspection by members of Bristol University's Department of Archaeology revealed that the cup mark may initially have been formed from a natural spherical depression, the result of a loosened stone clast. Despite the natural elements of the art and its current covering of lichen, the cup-and-ring is clearly defined (Figure 14). A further cup mark is located on the northern side of the capstone. This example is slightly smaller and less defined and may also represent a weathered-out clast.

The final Neolithic site for discussion is Maen Catwg, which lies within the village of Galligaer in south Wales. The Glamorgan-Gwent Archaeological Trust's Historic Environment Record indicates that no Neolithic activity is recorded within the vicinity, thus calling into question the date of the stone (Figure 15). However, the 50 or more cup marks present on its upper face resemble those on other capstones in Wales (e.g., Bachwen, Ty Newydd and Trellyffaint; RCAHM 1976). On nearby

Figure 13. One of two triangular engravings and the eastern landscape views from the capstone of Garn Gilfach on Strumble Head.

Figure 14. Cup-and-ring mark on the capstone of Garn Turne.

Figure 15. The cup-marked boulder of Maen Catwg located on the edge of Gelligaer Common, Glamorgan.

Aberdare Common and Gelligaer Common, a number of examples have been identified that have clear cup marks, including one on a recumbent standing stone that is probably Late Neolithic or Early Bronze Age in date (Edith Evans and Martyn Howells pers. comm.)

Summary: the meeting of the tribes

Based on information supplied by the four Welsh Archaeological Trusts' HERs, there are the remains of around 130 Neolithic burial-ritual monuments in Wales, many of which retain clear architectural outlines of a chamber, passage, and the remains of a covering mound. (This number was probably much higher; both the antiquarian references Rowlands (1723) and Skinner (1802) refer to sites that were destroyed within their lifetime.) Excluded are a small number of monuments that are in a ruined state with just a hint of their former architectural morphology surviving. In addition to these sites there are around 50–80 sites that are destroyed or lost, sometimes surviving merely as place-name evidence (Barker 1992; Daniel 1950; Powell *et al.* 1969). Most of the extant sites and those in a poor state of preservation are concentrated in nine well-defined clusters, eight of which are located around the coastal areas. It is in these areas where Neolithic communities would have had access to both terrestrial and marine resources, and employed contact and exchange mechanisms with Ireland and the continent. This accessibility to resources would also have been available to earlier Mesolithic communities living around the coasts and river valleys (David and Walker 2004; Lille 2015). The siting of burial-ritual monuments within these core areas was probably based more on ancestry than the economics and politics of the area (e.g., Bradley 1993; Kinnes 1988). It is notable that only one cluster of Neolithic monuments is found within the central mountainous regions of Wales – 18 extant monuments that encircle the Black Mountains. Probably during the succeeding Bronze Age, engravings were made on rock outcropping within the foothills and valleys of western Britain (albeit sporadically).

Arguably, the prehistoric rock art of Wales forms part of a universal sign system that extends along 3200km of the coastline of Europe, referred to as the 'Atlantic façade'. This assemblage extends from the Iberian Peninsula to southern Scandinavia (Cunliffe 2001).

From this area, Shee-Twohig (1981) has identified a clear repertoire of motifs including 11 generic geometric and curvilinear forms, ranging from chevrons, lozenges, and cup-and-rings to zigzags and simple cup marks. In addition to this abstract repertoire, representative engravings are also included, for example, footprints, which occur on three of the uprights of the former Calderstones passage grave, Liverpool and on the Pool Farm cist, Somerset.

Of the 130 or so extant Welsh monuments, only 18 are identified as possessing engraved rock art on or near them, from single and multiple cup marks to elaborate engravings using a complex range of motifs such as cup-and-ring marks, chevrons, serpentine lines and spirals. The most impressive repertoire occurs on the two passage graves in Ynys Môn – Barclodiad y Gawres and Bryn Celli Ddu. Conversely, single and multiple cup marks are found on dolmens and portal dolmens, especially those found along the coastal fringes of the Llyn Peninsula and in south-west Wales (e.g., Bachwen, Caer-Dyni, Carreg Coetan Arthur, Garn Turne, Trellyffaint and Ty Newydd). It could be that these simple motifs were added sometime during the use of each monument. Multiple cup marks are also found on single stones which may once have been the capstones of former dolmens, such as Maen Catwg and Trefael. Rock art also occurs on rock outcrops close to burial-ritual monuments. This form of landscape statement occurs at the sites of Bryn Celli Ddu, Cerrig y Gof, Cist Cerrig and Garn Wen. It is possible that the relationship between monuments and landscape was intimate, and that demarcation of the immediate landscape imposed rules on ritual and public spaces, as evidenced by monuments such as Bryn Celli Ddu and its ritualised landscape that has yielded many Neolithic and Bronze Age finds, along with strategically-sited standing stones and decorated rock outcrops.

The 18 monuments with rock art range from simple rock-cut monuments, dolmens (or cromlechs), to portal dolmens and passage graves. In other words, rock art occurs on most of the prehistoric architectural forms present in Wales. It is therefore conceivable that the commissioning and use of cup marks occurred when the earliest monuments—portal dolmens—were either being constructed or were in use. In my opinion, a movement of artistic endeavour (i.e., rock art) was probably applied only when all four monument types were in use at roughly the same time – i.e., around 3000 BC, when there is evidence of rock art from the passage graves of southern Ireland being replicated within the two monuments in Ynys Môn and on the chamber and passage uprights of the Calderstones in Liverpool. Recent excavations at Trellyffaint in north Pembrokeshire revealed a date of *c.* 3100 cal BC from lipids extracted from food residues encrusted on the inside of a Grooved Ware pot (Nash et al. 2021), demonstrating that this site is contemporary with other monuments in use at this time.

The idea to replicate the artistic repertoire of, say, monuments within the Boyne Valley, Ireland, would have involved the tomb-builders of north Wales having a similar mindset and view of the Neolithic world as their Irish counterparts. However, the complex rock art motifs used within the chamber of Barclodiad y Gawres and the stone over the centrally-placed pit within a

henge phase at Bryn Celli Ddu appear to be different to the megalithic art found elsewhere along the Atlantic Façade. It is probable that, although the worldviews of Neolithic tomb builders across north-western Europe were similar, linguistics, regional identity and changing attitudes towards landscape may have had a profound influence on the types of motif engraved and where they were placed. For example, the megalithic art on the two Ynys Môn monuments is significantly different in style and form to the rock art on the Calderstones and the nearby Robin Hood Stone in Liverpool (Nash 2010).

In terms of landscape, there are two principal regions of Wales where burial-ritual monuments containing rock art occur: North Pembrokeshire (around the coastal settlement of Newport) and north Wales (on the Llyn Peninsula and the island of Ynys Môn). In these areas, burial-ritual monuments stand close to open water, sited between 0.1km and about 15km from the sea; the majority are intervisible with the sea and several stand next to the shoreline (e.g., Bachwen, Barclodiad y Gawres, Carreg Coetan Arthur and Garn Wen). Conversely, some monuments are either sited close to the sea but not intervisible with it (e.g., Cist Cerrig, Trefael and Trellyffaint) or on the intermediate slopes of hills and rocky outcrops (Garn Gilfach, Garn Turne and Morfa Bychan). With these monuments (and possibly prior to the execution of rock art), some form of concealment may have been in operation (Nash 2006a; Tilley 1994).

Although the 18 sites with rock art account for only around 14% of the total extant assemblage of Neolithic burial-ritual monuments in Wales, we can begin to establish several patterns that involve landscape position and distribution, and those areas of the monument where rock art occurs (albeit tentatively). Rock art is also infrequent on monuments in Ireland with only 15% of the 225 passage graves having megalithic art (Waddell 2005: 57); similar ratios exist elsewhere in Atlantic Europe. Why are only 18 of the 130 known monuments in Wales decorated? I have previously postulated that the spread of ideas associated with the production and meaning of engraved art was a fluid process that extended over vast distances and included sea journeys between the British mainland and Ireland via the Irish Sea (and further afield). The four architecturally diverse monument types were probably first constructed with no concept of engraving motifs on or around their structures. At some point, probably around 3500 BC, when the passage grave tradition was gaining momentum across the core areas of western Atlantic Europe, some Neolithic communities began to engrave meaningful motifs on their burial-ritual monuments, the original concept arising within the southern core areas of the Iberian Peninsula. The last vestiges of a pan-European passage grave tradition (including the production and use of engraved art) and Neolithic burial monumentality *per se* occurs in north Wales during the early part of the third millennium BC and spreads slowly eastwards. Subsequently, despite the shift from corporate burial monumentality to single status and family burial, in the form of barrows and cairns, the concept of engraved art continues, albeit largely confined to upland rock outcrops in northern Britain and to some extent Wales, usually in the form of single and multiple cup marks and occasional cup-and-ring marks.

References

Barker, C.T. 1992. *The Chambered Tombs of South-West Wales: A Re-assessment of the Neolithic Burial Monuments of Carmarthenshire and Pembrokeshire* (Oxbow Monograph 14). Oxford: Oxbow Books.

Baynes, E.N. 1912. The megalithic remains of Anglesey. *Transactions of The Honourable Society of Cymmrodorion*. Session 1910-11: 3–91.

Bradley, R. 1993. *Altering the Earth: The Origins of Monuments in Britain and Continental Europe*. Edinburgh: Society of Antiquaries of Scotland.

Children, G. and G.H. Nash. 2001. *Monuments in the Landscape: The Prehistory of Breconshire, Vol. IX*. Hereford: Logason Press.

Cunliffe, B. 2001. *Facing the Ocean: The Atlantic and its Peoples, 8000 BC to AD 1500.* Oxford: Oxford University Press.

Daniel, G.E. 1950. *The Prehistoric Chambered Tombs of England and Wales*. Cambridge. Cambridge University Press.

David, A. and E.A. Walker. 2004. Wales during the Mesolithic, in A. Saville (ed.) *The Mesolithic of Scotland and its Neighbours*: 299–337. Edinburgh: Society of Antiquaries of Scotland.

Fowler, P.J. 1983. *Prehistoric Farming*. Cambridge: Cambridge University Press.

Grimes, W.F. 1936. The Megalithic Monuments of Wales. *Proceedings of the Prehistoric Society* 2: 106–139.

Hemp, W.J. 1926. The Bachwen Cromlech. *Archaeologia Cambrensis:* 429–431.

Hemp, W.J. 1930. The chambered cairn of Bryn Celli Ddu. *Archaeologia* 80: 179–214.

Hemp, W.J. 1938. Cup markings at Treflys, Caernarvonshire, *Archaeologia Cambrensis.* 93: 140–141.

Kinnes, I. 1988. Megaliths in action: some aspects of the Neolithic period in the Channel Islands. *Archaeological Journal* 145(1): 13–59.

Lillie, M. 2015. *Hunters, Fishers and Foragers in Wales: Towards a Social Narrative of Mesolithic Lifeways*. Oxford: Oxbow Books.

Nash, G.H. 2006a. *The Architecture of Death: The Neolithic Chambered Monuments of Wales*. Hereford: Logaston Press.

Nash, G.H. 2006b. Cup-and-ring petroglyph on the Neolithic chambered burial monument of Garn

Turne, Pembrokeshire, SW Wales. *Rock Art Research* 23(2): 199–206.

Nash, G.H. 2010. Art in this world and art for the underworld: an appraisal of the later prehistoric menhir of Robin Hood's Stone, Allerton, Liverpool. *Merseyside Archaeology Society* 13: 87–94.

Nash, G.H., C. Brook, A. George, D. Hudson, E. McQueen, C. Parker, A. Stanford, A. Smith, J. Swann and L. Waite. 2005. Notes on newly discovered rock art on and around Neolithic burial chambers in Wales. *Archaeology in Wales* 45: 11–16.

Nash, G.H., A. George and L. Waite. 2007. Cupmarks discovered on the Cae-Dyni chambered monument, Criccieth, Caernarvonshire, North Wales. *Adoranten:* 34–39.

Nash, G.H., C. Brook, T. Welicome and C. Rees. 2020. Discovery of human remains at the Trefael Stone, North Pembrokeshire, Southwest Wales. *Archaeology in Wales* 57–58: 117–121.

Nash, G.H., C. Brook and T. Welicome. 2021. Preliminary field investigations at Trellyffaint, Pembrokeshire, SW Wales. *Archaeology in Wales* 57-58: 123–129.

Nash, G.H., A. Stanford, I. Therriault and T. Wellicome. 2011. Transcending ritual boundaries, from Dolmen to Menhir: the excavation of the Trefael stone, south-west Wales. *Archaeology in Wales* 51: 51–61.

Neville George, T. 1970. *British Regional Geology: South Wales*. HSMO, 3rd edition.

Powell, T.G.E., J.X.W.P. Corcoran, F. Lynch and J.G. Scott. 1969. *Megalithic Enquiries in the West of Britain*, Liverpool: Liverpool University Press.

Powell, T.G.E. and G.E. Daniel. 1956. *Barclodiad y Gawres.* Liverpool: Liverpool University Press.

RCAHM (Wales). 1976. *An Inventory of the Ancient Monuments in Glamorgan, Vol. 1, Part 1, Stone and Bronze Age.* London: HMSO.

RCAM (Wales). 1925. *An Inventory of the Ancient Monuments in the County of Pembrokeshire.* London: HMSO.

RCAM (Wales). 1937. *An Inventory of the Ancient Monuments in the County of Anglesey.* London: HMSO.

Rowlands, J. 1723. *Mona Antiqua Restaurata*.

Sharkey, J. 2004. *The Meeting of the Tracks: Rock Art in Ancient Wales*. Llanrwst: Carreg Gwalch.

Shee-Twohig, E. 1981. *The Megalithic Art of North-Western Europe*. Oxford: Oxford University Press.

Skinner, J. Reverend. 1802. *Ten Days Tour through the Island of Anglesey* (reprinted with introduction by T. Williams, 2004).

Tilley, C. 1994. *A Phenomenology of Landscape*. Berg: London.

Waddell, J. 2005. *The Prehistoric Archaeology of Ireland*. Waterford: Wordwell Bray.

3

Recognising Irish rock art: the people behind recent discoveries in Ireland

Aoibheann Lambe

In what is surely an improbable development for a class of monument widely thought to have beginnings in the Neolithic, the known number of rock art panels in Ireland has been increasing exponentially in recent years. The island-wide total number of panels ('panel' here denotes an inscribed rock surface, whether boulder or outcrop) amounts to about 1000 (Figure 1) which is nearly half as many again as were on record in 2014. This spike has been paralleled in other countries along the Atlantic fringe. In Ireland, the increasing awareness of this often-overlooked monument class is largely attributable to individuals involved in promoting Ireland's prehistoric heritage, either online or as part of local groups. Frequently, these same people have themselves identified rock art. Many sites have been discovered in regions where previously none had been recorded, such as those identified in a series of surveys conducted since 1997 by Gaby Burns and Jim Nolan (2007, 2017). Elizabeth Shee Twohig is responsible for spearheading surveys in Meath which led to rock art discoveries in cultural contexts that have reignited the debate on the relationship between open-air rock art and passage tomb art (Shee Twohig 2012; Shee Twohig *et al.* 2010).

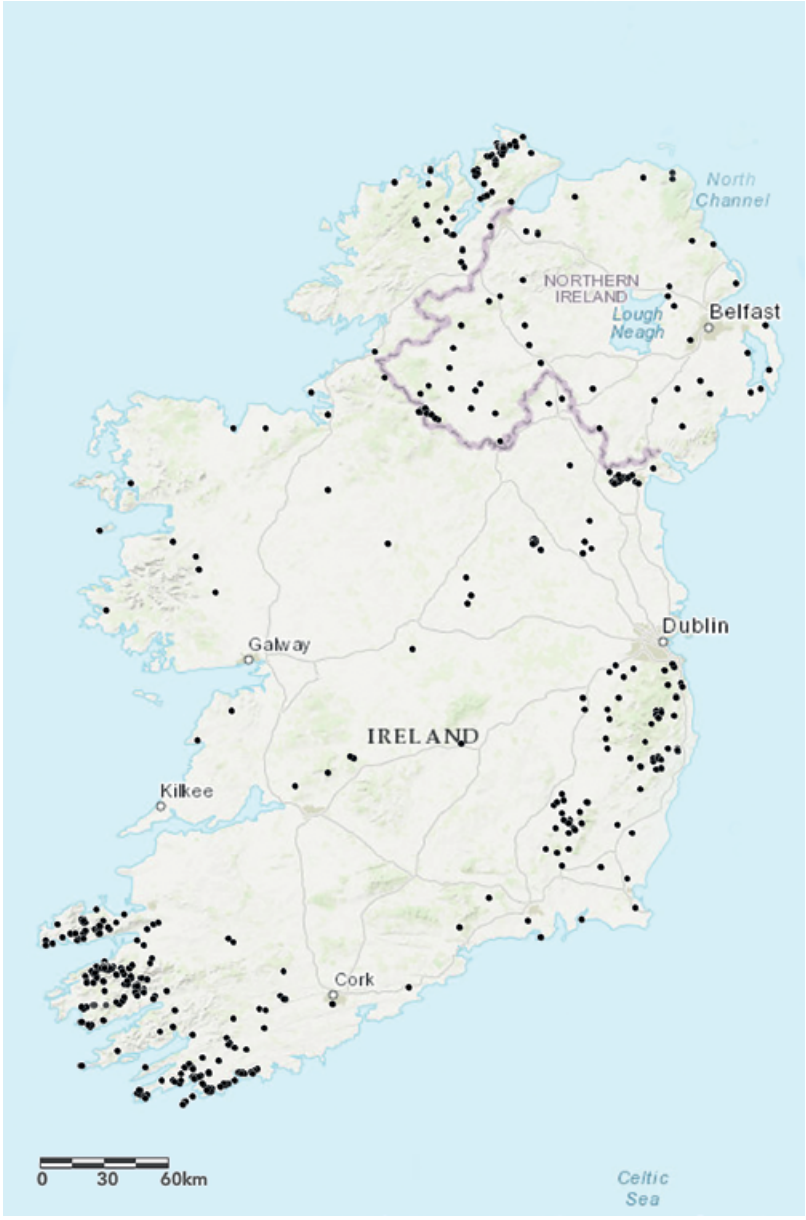

Figure 1. Distribution map of Irish rock art. This map has been plotted using data gleaned from a wide array of sources, the most valuable of which has been the Archaeological Survey of Ireland (ASI). Rock art is categorised under a range of classes on the ASI, the two main classes being 'rock art' and 'cup-marked stone'. For ex situ *panels where only the original townland but not the precise location of the panel is known, the panel is mapped to that townland (otherwise, rock art would appear to be absent from counties Laois and much of the south-east). Additional panels include those referred to in various PhD theses, the grey literature as well as rock art whose reports have been submitted to the ASI but have yet to be uploaded to the online viewer.*

Within the last decade, the establishment has also begun to play a greater role in the promotion and protection of rock art. The publication of Ireland's first book on the subject by an archaeologist with the National Monuments Service (NMS), Christiaan Corlett (2014), was followed six years later by an

information leaflet on Irish rock art published by the Heritage Council. In 2016, the Cork Public Museum hosted an exhibition on rock art mounted by Finola Finlay and her husband Robert Harris, and in the same year the Archaeological Survey of Ireland (ASI), a unit of the NMS, commissioned rock art surveys in the counties of Cork and Kerry.

The importance of the many new discoveries lies less in the increased quantity of rock art panels on record, and more in what the character of the newly discovered rock art reveals about regional variations in style, and the varied cultural and landscape contexts in which it is found. Rock art was evidently far more widespread in prehistoric Ireland than has previously been appreciated.

Discovering rock art can be a wonderful experience. Upon leaving Ballymoon Castle in Co. Carlow at sunset, Corlett (2014: 3) recalls how 'a cup marked boulder practically called out to me as I passed'. However, the delight of discovery may contribute to a perception that surveying for rock art is merely a form of adventure. One aspect of my research is a hybrid approach whereby questioning the received wisdom about rock art engenders questions that shape the surveys.

The people behind recent Irish rock art discoveries (Figure 2) include a broad spectrum of women and men, from those for whom rock art is of passing interest through to a small number whose lives have been significantly shaped by their dedication to the subject. Their contribution to the documentation, protection, and promotion of rock art has been influenced, whether directly or indirectly, by the work and ethos of Stan Beckensall, a prolific author and authority on rock art in Britain whose extensive archive has been made freely available to the public. The impact of the recent

Figure 2. The people behind rock art discoveries in Ireland since 2000.

discoveries on the known Irish rock art distribution and the importance of increased public awareness of rock art, a driving force behind many rock art discoveries, are the main themes of this contribution. Within the last five years alone, over 30 individuals across Ireland have identified and reported their rock art discoveries to the responsible authorities – the NMS in the Republic, and the Northern Ireland Sites and Monuments Record (NISMR) for Northern Ireland.

The expanding known distribution of rock art in Ireland

At the time of writing, some form of open-air rock art has been recorded in every county in Ireland with the exceptions of Limerick and Longford. Yet before the year 2000, few, if any, rock art panels had been recorded in half the counties in the Republic, with none at all in counties Cavan, Clare, Leitrim, North Tipperary and Roscommon and only a few isolated examples in counties Dublin, Kildare, Kilkenny, Laois, Mayo, Meath, Offaly, Sligo, Waterford, Westmeath and Wexford.

The greatest concentrations of rock art are found at two extremes of the island, in Co. Donegal in the north-west and along the peninsulas of counties Cork and Kerry in the south-west. Very little rock art is found along the west coast between Donegal and Kerry down through counties Sligo, Mayo, Galway, and Clare, and including western Donegal and north Kerry. Recent discoveries from the north-west of Ireland include a cup-and-ring mark on a probable capstone discovered in 2020 during archaeological excavations in the coastal town of Ballyshannon in Co. Donegal, and, in the same year, cup marks at Cloghcur portal tomb in Co. Sligo (Tamlyn McHugh pers. comm). Off the Mayo coast, the discovery during an archaeological survey on Clare Island (Gosling *et al.* 2007) of a cup mark and lines on an earthfast stone set in a low bank-like rise 1.5m south-east of a cairn brings to five the number of islands on which rock art is found. Until the cup marks on the inner faces of two of the orthostats of the Gleninsheen wedge tomb were spotted by archaeologist, Michael Gibbons (2007), no rock art had been recorded in Co. Clare. A second panel was identified in 2018 by an archaeologist with the forestry service, Melanie McQuade (pers. comm.). A cup-and-ring marked boulder close to the coast at Ballyvorda is said to have been used as a 'mass rock' (essentially an open-air altar) in penal times. It is a rare, but not unique, instance of 'all-over-decoration' in open-air rock art.

The absence of rock art in north Kerry is coincident with extensive land clearances within the last 200 years and the probable resulting destruction of many monuments. Similar patterns can be seen elsewhere in the country, particularly where the land is fertile. A rare hint that rock art may have existed in North Kerry is found in a reference in the School's Collection (National Folklore Commission UCD n.d.) to a stone in Ballyseedy bog near Tralee, under which a box of gold was said to be buried, the surface of the stone bearing a hole as well as 'drawings and writing'. O'Connell (1939) also mentions an 'unusual' cup-marked stone being found near Ballybunion, also in North Kerry.

Until Michael Fortune's discovery of a cup-marked boulder in Atramon graveyard in Co. Wexford, and the observation of cup marks on Knockeen portal tomb in Co. Waterford by Elizabeth Shee Twohig (pers. comm.), no rock art was to be found in the south-east of the country. The panels previously recorded in counties Waterford and Wexford are either *ex situ* (the Mothel stone from Co. Waterford is currently located in the 'Stone Corridor' in UCC) or their current location is unknown.

Tipperary is a large inland county where no rock art was recorded until 2014 when Derek Ryan Bawn discovered an earthfast stone festooned with cup marks less than 30m from a stone pair and a barrow in the townland of Lisheentyrone. This is one of the farthest inland of any rock art sites in Ireland. Actively involved in the promotion of heritage, Ryan Bawn (2014) wrote a paper on his discovery for *Archaeology Ireland*, discovering through his research that cup marks had previously been noted in North Tipperary during the excavation of Baurnadoomeeny wedge tomb (O'Kelly 1960) as well as on one of the kerbstones of a barrow at Borrisnoe. He recently identified a second cup-marked boulder in North Tipperary, this also found in a cultural, albeit more modern, context. It is located in a 'children's burial ground' - unconsecrated ground which was used from the medieval period until the 1960s for the interment of unbaptised children.

A sandstone cist cover with surface and edge picking, which was unearthed during excavations in 2003 at Windmill Hill at Cashel in South Tipperary, was the subject of a paper by O'Sullivan and O'Connor (2009). Neither quintessentially rock art nor passage tomb art, anthropogenic picking of this nature on surfaces that are otherwise devoid of cup marks and cup-and-ring marks has been recorded in Kerry as rock art.

A palimpsest of archaeological monuments has been identified in the extensive surveys conducted in counties Cavan and Fermanagh in 'Burren Marlbank' since 1997 by Burns and Nolan (2007, 2017) (Figure 3). No rock art had previously been recorded in Co. Cavan, but over 40 rock art panels have been identified to date across the whole of the Burren Marlbank. By 2001, Burns and Nolan had mapped 30km of ancient field systems and recorded 150 house sites. Many of the monuments are in heavily wooded areas, with so much debris overlaying the rock art panels, it is

Figure 3. Gaby Burns (left) and Jim Nolan (right) with one of their rock art discoveries in the Cavan Burren.

remarkable they were ever discovered. The rosette, a motif which is otherwise rare, is characteristic of this complex. Towards the north of the complex, four panels are found in open pasture about 140m east of a cairn and a wedge tomb. To the south-west, one rock art panel in a cluster of ten or more other panels is less than 50m from a wedge tomb. Hut sites are peppered between the various monuments, many of which are intervisible. A rare instance of a cup-and-ring mark found in association with a Neolithic monument was first observed on Moneygashel portal tomb in 2009 by Jim Nolan's granddaughter. A phenomenon of previously undocumented rock art which has been observed by Burns and Nolan involves sandstone erratics on limestone pedestals, with either the boulder and/or the pedestal appearing to have been subtly shaped. Kytmannow and colleagues (2008: 99) consider the boulder shaping to be the result of something other than weathering, and 'quite possibly of purposive human activity'.

Intriguing rock art

Some of the recent discoveries in Ireland have implications for the chronology of open-air rock art and its relationship to passage tomb art. Unusual discoveries include an outcrop in the Gap of Dunloe in Kerry and a boulder in a stream in Kilkenny (Figure 4), both of which bear inscriptions including conjoined square rings enclosing a small central cup mark. This rock art is quite unlike any other in the cup-and-ring tradition in Ireland.

In his search for rock art, Pádraig O'Cumasaigh, from Dundalk in Co. Louth has discovered three standing stones as well as folk art dating to the nineteenth century, and been shown the putative burial place of the mythological hero, Cú Chulainn, which is marked by three upright stones. Aware that former deer parks like that at Drumirril can be monumentally rich landscapes, in 2020 O'Cumasaigh chose to survey a deer park near Dundalk. A cup mark-like hollow on an earthfast rock largely overlain with grass caught his attention. He lifted the root-mat to reveal an arc of cup marks partially enclosing a double-coiled spiral (Figure 5). One of its outer coils terminates in a cup mark and, echoing a phenomenon that has been observed in many instances in Kerry, strands of picking through the motif form a faintly discernible V-shape. Double-coiled spirals are rare, the few other examples previously recorded in Ireland being found exclusively in association with passage tombs, among the best-known of which are at Newgrange.

Figure 4. An unusual rock art panel recently discovered in Co. Kilkenny by Larry Kirwan. Photo: Christiaan Corlett.

On the Ards Peninsula in Co. Down, on the east coast of Northern Ireland, rock art has recently been discovered on lichen-encrusted outcrops. It was first observed in suitable light conditions by landowners, one of whose neighbours is an archaeologist with the Historic Environment Department! (Rebecca Enlander pers. comm.). The rock art includes a partial cup-and-three-ring motif truncated by a kidney-shaped cup-and-three-rings motif. Such truncation, characteristic of passage tomb art, occurs only very rarely in open-air rock art.

Rock art on loose boulders is a common occurrence in Ireland but few are small enough to be considered portable. Corlett (2014: 27) describes a cup-and-ring marked pebble found in 2010 at Baltyboys Upper, Co. Wicklow, on the shoreline of the Poulaphuca reservoir, which consists of a stone small enough to be held in the hand, the pecked ring around the central cup mark echoing the natural squarish shape of the stone. This discovery is even more interesting for the context in which it was found, 20m from a Neolithic house dated to *c.* 3600 BC.

Figure 5. A double-coiled spiral initially identified in 2020 by Pádraig O'Cumasaigh. Photo: Pádraig O'Cumasaigh.

Since first recorded alongside cup-and-ring marks on an earthfast rock at Carhoomeengar near Kenmare (Coyne 2001), compass-drawn designs consisting of finely incised rings have been recorded in four more instances on Kerry's Iveragh Peninsula. They are the subject of current research and a survey (still in the very early stages) by this writer with, so far, compass drawn designs similar in form and execution to those in open-air contexts now found in three ecclesiastical and one domestic context in Ireland. A rare form of incised geometric rock art in Ireland is called 'COMBS' (Shee Twohig 2004) after the contexts in which it is found (caves, outcropping, megaliths and boulder shelters). An open-air incised ring on natural rock (Figure 6) discovered by David Myler near COMBS style carvings in Kealanine in Co. Cork is a welcome addition to the record. A well-known rock shelter in the Caherdaniel area was home to a widow and her children after the famine, in *c.* 1860; COMBS style carvings within this shelter were undocumented until recently (Lambe 2021).

Retracing steps

While people surveying for rock art are retracing the steps of those who made and used the rock art, the steps of those who previously surveyed the same landscapes are often (perhaps unwittingly) also followed. The person behind every newly identified panel is the latest addition to a rock art family tree that dates back to the antiquarians. Careful reading of previous documentation can yield references to rock art which have since been forgotten.

The vast Loughcrew passage tomb complex in Co. Meath was first documented in the book *Discovery of the Tomb of Ollamh Fodhla* by Eugene Conwell (1873). The similarity of open-air rock art to passage tomb art, particularly at Loughcrew's Cairn T, has long been observed, e.g., Kinahan (1879: 20). Until 2003, the only rock art panels found in the greater area had been *ex situ*. Shee Twohig and her team (2010) conducted field surveys at the complex over several seasons, starting in 2003, identifying 13 *in situ* rock art panels. Later, Shee Twohig re-read Conwell's book, discovering previously overlooked references to rock art panels – not in the main text but in the appendix. Some of the panels described by Conwell were not re-identified. Observations by Shee Twohig *et al.* (2010) suggesting the reuse of open-air rock art in the passage tombs include weathered cup-and-ring marked panels within the cairns as well as possible quarrying at one of the panels. Graves (1865: 360) had proposed the reuse of rock art panels in passage tombs, hypothesising that they may have been perceived as being already 'endowed with some kind of sanctity fitting them to do honour to a great chieftain's grave'.

In Wexford, a county in which few panels have ever been recorded, Kinahan (1884: 233–235) described and illustrated a granite standing stone at Ballybrennan Castle near Enniscorthy which had distinct cup marks on its south side near the base. Another cup-marked standing stone in Co. Wexford, a little north of Bannow Church, was also depicted and described. These stones are not otherwise documented in the archaeological record. Following investigations by Owen Dunbar,

Figure 6. An open-air incised ring on natural rock discovered by David Myler in 2022. Photo: David Myler.

it appears the Bannow Stone was still *in situ* in living memory and may be still in its original, albeit now overgrown, position.

Helen Roe (1895–1988), an MA graduate from Trinity College Dublin and the first woman to serve as the president of the Royal Society of Antiquaries of Ireland (1965–68), recorded rock art at Sentry Hill in Co. Laois (Roe n.d.). However, the precise location of this panel is unknown, and no other rock art is recorded in the county. At my request, Regina Dunne who is researching Helen Roe, kindly combed through the records, finding the reference to the Sentry Hill stone as well as a reference to a second cup-marked stone in the townland of Offerlane. These cup-marked stones have yet to be re-located.

In Donegal, Angela McLoughlin and her father Liam, both of whom share a keen interest in heritage, are known for their rock art discoveries, Liam especially so. They sometimes survey as a team which includes Bettina Linke and Angela's husband, photographer Adam Rory Porter. Some of the rock art which has been rediscovered by the McLoughlin team was initially identified by Maarten Van Hoek (1987, 1988; Van Hoek & van Hoek 1984), a Dutch geography teacher who documented the rock art he discovered in Donegal. Bauke Roof, a Dutch photographer living in Donegal who was once his student, first learned about his rock art research only after she herself had made rock art discoveries in Donegal. Van Hoek also wrote papers on the typologies and distribution of the spiral (1993), the rosette (1989) and the keyhole (1995), rare motifs occurring in proportionately smaller numbers to cup marks and simple cup-and-ring motifs. He drew all the variations of the above motifs accurately, also providing the relevant panel information for each motif illustrated. Van Hoek's work has not received the recognition it deserves. Typologies of this nature enable variations in motif forms at disparate locations to be readily recognised and further investigated using multi-stranded research approaches. The more subtle nuances in motif form have been largely overlooked in rock art research in the decades since his work was published. Evidently, rock art itself has, on occasion, been considered the least interesting component of rock art research.

Chain reaction

Jack Clarke, who identified most of the rock art on record in counties Louth and Monaghan, set off a chain reaction which would lead to the discovery of the outstanding cluster of rock art panels at Drumirril. Following his discovery of rock art on his own land at Cortial in Co. Louth, he sent a letter along with a photograph of his discovery to the local paper, the *Dundalk Democrat,* where they were published on 16 March 1974. On reading about Clarke's discovery, Patrick Carroll remembered seeing a somewhat similar inscription at Drumirril. He mentioned the fact to Mr Noel Ross, who, in turn, informed Jack Clarke. (Clarke 1982). The rock art at Ballinloughan, first noticed by Mr Patrick Mallon on a visit to the area, came to the attention of Clarke (1982) through its inclusion in Anthony Weir's *Early Ireland - a Field Guide* (1980). In the mid-1980s, prior to its imminent destruction for agricultural purposes, the elaborately inscribed outcrop was recorded, at Clarke's invitation, by Maarten van Hoek (1985).

The exceptional Drumcarbit stone on Malin Head in Co. Donegal (Figure 7), whose largest motif consists of a cup mark enclosed with the greatest number of enclosing rings, ten, of any cup-and-ring mark in Ireland, was originally documented by archaeologist Richard Crumlish (1991). He was told about the rock art by his uncle, Conal Byrne, a local historian resident in Malin and the go-to person in the area for new archaeological discoveries at the time. Finally, in a pattern that is echoed throughout the country, Adam Rory Porter was told of newly discovered rock art by a visitor to his studio in Buncrana who knew of the reputation of his father-in-law, Liam McLoughlin, for discovering rock art.

That discoveries beget further discoveries is to be expected for a monument type that rarely occurs in isolation. At Derrynablaha in Co. Kerry, following the initial identification in *c.* 1960 of rock art by the landowner, Dan 'Green' O'Sullivan, more rock art has been recorded by successive researchers: Emanuel Anati (1963), Finola Finlay (1973), Avril Purcell (1994) who adopted the contextual, landscape-based research framework developed by Bradley (1997), the Archaeological Survey of Iveragh (O'Sullivan and Sheehan 1996), rock art surveys commissioned by the NMS which were conducted by contractors in counties Cork and Kerry from 2016–18, Ken Williams in 2020, as well as around ten panels identified by this writer at various times between 2014 and the present.

Discoveries of significant rock art concentrations

While the rock art of Ireland is part of a greater tradition spanning the European Atlantic fringe (Bradley 1997; Valdez-Tullett 2019), over the last 20 years in Ireland, the discoveries in Kerry (Lambe 2021), and elsewhere in the country, have had significant implications for Irish rock art research. Contrary to previous belief, there is mounting evidence that the tradition had a presence across the greater part of Ireland with some rock art concentrations also having clear associations with other monument classes. Until recently, it was considered a remote possibility that significant concentrations of

Figure 7. Rock art at Drumcarbit, Co. Donegal. Photo: Aoibheann Lambe.

rock art were yet to be discovered unless, as O'Connor (2006: 82) ventured, 'we are willing to believe that . . . entire regions were once literally carpeted with motifs, or that clusters of up to 100 panels lie awaiting future discovery'.

And yet the rock art discovered in Cavan by Burns and Nolan (2007, 2017) had been overlooked prior to their surveys which have revealed an archaeological landscape with potentially many more than the 40 panels currently on record in Burren Marlbank yet to be identified. On Kerry's Iveragh peninsula, the Kealduff Upper and Letter West rock art complex comprises the greatest rock art concentration in Ireland. Within the densest portion of the complex, where four panels had been recorded prior to 2014, over 80 panels have since been recorded in an area amounting to less than 0.5km^2. The complex is composed of many micro-clusters whose individual panels are distinct from one another, some of them among the most elaborate in the country (Figure 8). Many of these panels were discovered during the author's surveys in Kerry since 2014.

Further surveys have yielded discoveries in landscapes previously believed uncharacteristic of the rock art tradition. The propensity for rock art to be found in upland mountainous areas in Kerry may be more attributable to the lack of development in such areas than to any strong preferences by those making the rock art, a point already made in a British context by Stan Beckensall (2002). Targeted surveys in Kerry in low-elevation fertile pasture suitable for settlement have yielded discoveries of *in situ* rock art panels all of which, despite their low elevation, have commanding views over the surrounding landscape. Many of the 16 examples of rock art identified over the course of eight years in low elevation sites on the south of the Iveragh peninsula are incorporated into field-clearance cairns or have resurfaced during recent development works. The most monumental of any panel in the region is a huge outcrop inscribed on six faces (Figure 9). This was saved from potential destruction following concerns about its proximity to electricity poles.

As no rock art was recorded along the main pass north/south through the Iveragh peninsula, this area was targeted for my own survey. The rock art identified is not readily visible from the route currently in use, being located at a slight remove from the track with some inscribed surfaces some 2m or higher above

Figure 8. The 'rosette stone', initially identified by Aoibheann Lambe in 2017. Photo: Aoibheann Lambe.

Figure 9. Rock art at Caherdaniel, initially identified by Aoibheann Lambe in 2014. Photo: Aoibheann Lambe.

Figure 10. A motif that has been described as a cup-and-3 gapped rings in two state surveys is a more complex composition due to superimpositions that modified it into a faintly discernible double-coiled spiral.

current ground level. Rocks whose shapes are echoed in the landscape are of particular interest to me as I have observed through fieldwork that not only do the shapes of many rock art panels, both those newly identified and those previously recorded, echo the horizon (a phenomenon I dub 'mirror landscape'), but visualising such panels in context can serve as a mnemonic for navigating the landscapes in which they are located.

Superimpositions in rock art have been detected in many instances in Kerry, some of which subtly but profoundly alter a motif's form (Figure 10). Styles of carving possibly attributable to individuals have also been identified (Lambe forthcoming). The occurrence of motifs such as the rosette and the keyhole, once thought exclusive to certain townlands in Kerry (Purcell 1994), are more widespread than previously known. Some very singular motif variations such as a miniature rosette within a rosette motif (the former consisting of a ring of (usually five) pick marks around a cup mark), have been recorded 20km apart in two distinct complexes in Kerry.

Raising awareness of rock art

Various interested and enthusiastic people who host websites, blogs or social media groups, have also made rock art discoveries, including Ken Williams ('Shadows and Stone'), David Myler ('Walking with Stones'), George Eliott ('Lesser Spotted Anorak'), Cliodhan Ní Lionáin ('Wicklow's Rock Art Project'), and Derek Ryan Bawn ('the Tipperary Antiquarian'). Finola Finlay has written both a thesis (1973) and (more recently) two journal articles on rock art (Finlay and Harris 2017, 2018). Finola and her husband Robert Harris have mounted rock art exhibitions and have helped to popularise the topic through numerous blog posts which are addressed to the non-specialist. Finola also established the 'Irish Rock Art' Facebook page where she was joined by Ken Williams, Christiaan Corlett and this writer. I now administer both that page and 'Rock Art Kerry' on various social media platforms. Michael Fortune, who has a large social media presence and has discovered rock art in Wexford and Carlow, came to Kerry in August of 2021 to film a children's television program for RTE at the Liss rock art, the first panel to be documented in detail in Ireland (Graves 1873), and which also provided my own introduction to rock art in 2010.

Conclusion

It is an exciting time to be a rock art researcher in Ireland. Many of the recent discoveries challenge current thinking on rock art and raise more questions than they answer. It may be that the rising trend in discoveries is set to continue and, with it, an ever more accurate picture of the original island-wide distribution will emerge. The high incidence of current discoveries on known monuments reflects the recognition of rock art in contexts where it was previously overlooked. Cup marks and cup-and-ring marks have been identified on both Neolithic and Bronze Age funerary monuments, although '. . . at what stage the motifs became part of the monuments is not known. That they are there means that the motifs were clearly regarded as important to whatever rituals were enacted there' (Beckensall 2002).

Despite the growing awareness of rock art, action needs to be taken to demonstrate its importance in Ireland. The Boheh stone in Co. Mayo is the sole rock art panel in state ownership in the Republic. An absence of waymarked rock art trails in the country needs to be remedied. Gaby Burns has already taken

steps towards this by placing unobtrusive signs with QR codes beside the various rock art panels and other monuments in the Cavan Burren. My own long-held dream would be the creation of an open-air/eco rock art museum. Developed in close collaboration with landowners and with minimum intervention in the landscape (avoiding structures, obtrusive signage, and railings), it would allow the panels to be experienced in their natural settings.

Afterword

When embarking on this overview of rock art discovery in Ireland, I did not realise just how many people were actively involved in raising awareness of rock art, and, by reporting their finds, also protecting it. By engaging with the landowners who are the *de facto* caretakers of most of our monuments, these people are also demonstrating that both the monuments and the role of landowners in their protection, are important.

The research undertaken, and publicity generated, beyond Ireland by Stan Beckensall, Kate Sharpe, Richard Bradley, Scotland's Rock Art Project, and George Currie, to name only a few, have done a great service to Irish rock art by raising awareness of the importance of the monument class here in Ireland, and influencing the drive for sharing new discoveries with the public.

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References

Anati, E. 1963. New petroglyphs at Derrynablaha. Co. Kerry. *Journal of the Cork Historical and Archaeological Society* 68: 1–16.

Beckensall, S. 2002. British prehistoric rock-art in the landscape, in G. Nash and C. Chippindale (eds) *European Landscapes of Rock-Art*: 39–70. London: Routledge.

Bradley, R. 1997. *Rock Art and the Prehistory of Atlantic Europe: Signing the Land*. London and New York: Routledge.

Burns, G. & J. Nolan. 2007. Prehistoric rock art in the Burren/Marlbank area. *Archaeology Ireland* 21(2): 26–30.

Burns, G. & Nolan, J. 2017. *Burren-Marlbank. A Prehistoric Monumental Landscape*. Available for download from http://www.cavanburren.ie/145-2/. Accessed 17 March 2022.

Clarke, J.P. 1982. Prehistoric rock inscriptions near Dundalk, County Louth. *Journal of the County Louth Archaeological and Historical Society* 20: 106–116.

Conwell, E.A. 1873. *Discovery of the Tomb of Ollamh Fodhla*. Dublin: McGlashan & Gill.

Corlett, C. 2014. *Inscribing the Landscape: The Rock Art of South Leinster*. Dublin: Wordwell Ltd.

Coyne, F. 2001. Ever-increasing circles: a newly discovered piece of rock art near Kenmare, Co. Kerry. *Archaeology Ireland* 15(3): 16–19.

Crumlish, R. 1991. An example of rock art from Inishowen, County Donegal. *Journal of the Royal Society of Antiquaries of Ireland* 121: 171.

Finlay, F. 1973. The rock art of Cork and Kerry. Unpublished dissertation, University College Cork.

Finlay, F. and R. Harris. 2017. Rock art at Derreenaclogh, Co. Cork. *Journal of the Skibbereen and District Historical Society* 13: 171–184.

Finlay, F.and R. Harris. 2018. Unusual rock art near Bantry, West Cork: The Ballybane Group. *Journal of the Bantry Historical & Archaeological Society* 3: 68–88.

Gibbons, M. 2007. Rock art in County Clare. *Archaeology Ireland* 21: 16–18.

Gosling, P., C. Manning and J. Waddell (eds). 2007. New Survey of Clare Island, Volume 5: Archaeology. Dublin: Royal Irish Academy.

Graves, C. 1873. On a previously undescribed class of monuments. *The Transactions of the Royal Irish Academy* 24: 421–431.

Graves, J. 1865. On a boulder with presumed pagan carvings at Clonfinlough, King's County. *The Journal of the Kilkenny and South-East of Ireland Archaeological Society* 5(2): 354–362.

Kinahan, G.H. 1879. On inscribed stones, County Mayo. *Proceedings of the Royal Irish Academy. Polite Literature and Antiquities* 2: 17–21.

Kinahan, G.H. 1884. Cup-marked and inscribed stones in the counties of Wicklow and Wexford. *The Journal of the Historical and Archaeological Association of Ireland* 4: 222–237.

Kytmannow, T., E. Mens, G. Kerdivel and J. Gunn. 2008. *Creating Sacred and Secular Spaces. A study of the Glacial Erratics and Early Human Settlement in the Cavan Burren Landscape*. A report for Cavan County Council.

Lambe, A. 2021. Recent rock art discoveries in Kerry: an exponential rise in the known numbers of rock art panels. *Kerry Archaeological and Historical Journal Series 2*. 21: 85–102.

Lambe, A. 2021. Apotropaic marks. *Caherdaniel Parish Magazine* 11: 38–39.

Lambe, A. forthcoming. A single panel case study in Kerry – a palimpsest of rock art, in A. Mazel and G. Nash (eds) *Signalling and Performance: Ancient Rock Art in Britain and Ireland.* Oxford: Archaeopress.

National Folklore Collection, UCD, no date, Schools' Manuscripts Collection. 0443: 124, viewed 22 February 2022, <https://www.duchas.ie/en/cbes/4706340/4704193/4783962>

O'Connell, D.B. 1939. *Kerry Archaeological Survey: Publication no. 1: Letters to the Kerryman (Sept. '36 – Dec. '38).* The Kerryman.

O'Connor, B. 2006. Inscribed Landscapes: Contextualising Prehistoric Rock Art in Ireland. Unpublished PhD dissertation, University College Dublin.

O'Kelly, M.J. 1960. A wedge-shaped gallery grave at Baurnadomeeny, Co. Tipperary. With note by M.A. MacConaill. *Journal of the Cork Historical and Archaeological Society* LXV: 85–115.

O'Sullivan, M. and B. O'Connor. 2009. Megalithic art in County Tipperary. *Archaeology Ireland* 23(4): 17–19.

O'Sullivan, A. and J. Sheehan. 1996. *The Iveragh Peninsula: An Archaeological Survey of South Kerry; Suirbhé Seandálaíochta Uíbh Ráthaigh*. Cork: Cork University Press.

Purcell, A. 1994. Carved Landscapes: The Rock Art of the Iveragh Peninsula, County Kerry. Unpublished dissertation, University College Cork.

Ryan Bawn, D. 2014. Rock art in North Tipperary. *Archaeology Ireland* 28(3): 19–20.

Shee Twohig, E. 2004. An enduring tradition: incised rock art in Ireland, in H. Roche, E. Grogan, J. Bradley, J. Coles and B. Raftery (eds) *From Megaliths to Metals: Essays in Honour of George Eogan*: 222–9. Oxford: Oxbow Books.

Shee Twohig. E. 2012. Inside outside: visualising culture at Loughcrew Co. Meath, in A. Cochrane and A.M. Jones (eds) *Visualizing the Neolithic*: 125–139. Oxford: Oxbow Books.

Shee Twohig, E., C. Roughley, C. Shell, C. O'Reilly, P. Clarke and G. Swanton. 2010. Open-air rock art at Loughcrew, Co. Meath. *The Journal of Irish Archaeology* XIX: 1–28.

Van Hoek, M. 1987. The prehistoric rock art of County Donegal (Part I). *Ulster Journal of Archaeology* 50: 23–46.

Van Hoek, M. 1988. The prehistoric rock art of Co. Donegal (Part II). *Ulster Journal of Archaeology* 51: 21–47.

Van Hoek, M. 1989. The rosette in British and Irish rock art. *Glasgow Archaeological Journal* 16: 39–54.

Van Hoek, M. 1993. The spiral in British and Irish Neolithic rock art. *Glasgow Archaeological Journal* 18: 11–32.

Van Hoek, M. 1995. The keyhole pattern in the prehistoric rock art of Ireland and Britain. *Cathair Na Mart* 15: 15–25.

Van Hoek, M. and E. van Hoek. 1984. A new group of cup and ring marked rocks in Inishowen, County Donegal. *Journal of the Royal Society of Antiquaries of Ireland* 114: 144–9.

Valdez-Tullett, J. 2019. *Design and Connectivity. The Case of Atlantic Rock Art.* (British Archaeological Reports International Series 2932). Oxford: BAR Publishing.

4

Digging into the Ronald Morris archive: a Kilmartin Glen case-study

Kenny Brophy

Preamble

There is a rich tradition in the study of prehistoric rock art in the UK of avocational 'collectors', amateurs (in the most positive sense of that word) who dedicate themselves to finding and documenting cup marks and cup-and-ring marks (Beckensall 2007; Boughey 2010). This work was especially important in the second half of the twentieth century when the study of rock art in Britain was largely on the fringes of mainstream prehistoric archaeology. Until the turn of the millennium, few prehistorians knew how to embed it within broader narratives of prehistoric lifeways even if they could be bothered to engage with the sites, and I count myself in these ranks to my shame. So, in a very real sense, it was the avocational collectors and community groups who not only kept rock art studies alive as an active field of practice in archaeology, but found hundreds of sites, offered multiple interpretations, and (for the most part) published their results through their own persistence (and their own finances too in many cases, see Beckensall 2007: 218). 'As such, it is dedicated amateurs, not paid professionals, who have made the significant breakthroughs and the lasting contributions to the study of UK prehistoric rock art and pushed the boundaries of the subject forward' (Boughey 2010: 65).

Rock art studies in the UK, therefore, have greatly benefited from independent researchers such as Stan Beckensall, whose work demonstrates absolute professionalism. Beckensall is not alone, and many others have made important contributions, whether in terms of gathering data, finding sites, recording, allowing volunteering opportunities, or contributing to debates about these ambiguous sites. Boughey (2010) notes the work of Tim Laurie, Barbara and Paul Brown, Graeme Chappell, Anne Haigh, Maarten van Hoek, and Stuart Feather, while Scotland's Rock Art Project (ScRAP) benefitted greatly from the legacy of work by Dorothy Marshall and Marion Campbell, and active collaboration with, and the expertise of, George Currie (Barnett *et al.* 2021: 25). What drives all these researchers is a genuine love of the subject matter. Boughey notes Haigh had an 'untiring and passionate enthusiasm for prehistoric rock art bordering on the obsessional' (2010: 72).

This chapter is a study of the obsession of yet another avocational rock art researcher, Ronald Morris. In this case, I would like to take a slightly different focus to the norm, considering not only results and publications, but also personal archives. To do this, I will consider the legacy of Morris through an exploration of his archival material, which has huge research potential and value, but remains largely unexplored in the storerooms of Historic Environment Scotland (HES) in Edinburgh. Decades of studying rock art and carrying out field visits, reconnaissance, as well as associated correspondence, and research, have left a rich source of information which, I would argue, could add huge value to his many publications and our understanding of the sites that he recorded. The fantastic online resource that was the Beckensall archive (unfortunately unavailable at the time of writing) shows the potential value of taking such material and making it widely available to researchers, and I hope this chapter will act as a call for Morris's archive to get similar, or even better, treatment and thus the attention that it deserves. To demonstrate this, I will take as a case-study Morris's archive material pertaining to Kilmartin Glen, Argyll and Bute, an area for which Beckensall himself has much affection (Beckensall 2005). Before looking at this material, however, we must start with the man himself.

Ronald Morris

There is no doubt that Ronald Morris (Figure 1) is one of the great figures of amateur archaeology in Scotland, forever associated with cup-and-ring motifs due to a series of colourful and seminal publications, notably his regional studies covering Scotland and the Isle of Man (Morris 1977, 1979, 1981). His role in finding and researching these sites in Scotland cannot be over-estimated. The final ScRAP Report (Barnett *et al.* 2021: 24) notes that '... the greatest contribution in the past 70 years has been from independent researchers. Most renowned amongst them is Ronald Morris, a Scottish lawyer who recorded over 400 rock art sites across southern and western Scotland in the 1960s–1980s'. Boughey (2010: 67) called Morris the 'godfather of UK prehistoric rock art studies' while Beckensall (2007: 216–217) was clear that the groundwork for his career and that of others such as van Hoek began with Morris's

Figure 1. Photograph of Ronald Morris at Auchnacraig 1, West Dunbartonshire: date unknown, found in his archive.

own low-tech but persistent approach to discovery and publication.

In his working life, Morris was a lawyer with the Glasgow-based company of MacDonald, Jameson & Morris based in St Vincent Street (information from a letterhead found in his archive). He had to retire prematurely in 1962 due to an accident (Boughey 2010: 67), after which he was in the fortunate position of having the time and resources to pursue his passion: researching, finding, recording, and writing about prehistoric rock art (Beckensall 2007: 216) with his first academic publication following soon after this sudden career change (Morris 1964). This work was not always done from his own means: Morris was also successful at raising grant funding for his fieldwork, from the Leverhulme Trust to a Kodak award which enabled his campaign of visiting and recording every rock art site in northern Britain (and more beyond), with the aim of publishing accessible and affordable guides (Beckensall 2007: 216). His books were geared towards the lay reader and promoted sites that were accessible or easy to get to by car.

By the 1980s, Morris had been accepted into the world of professional archaeology, and as Boughey notes, was instrumental in abstract Neolithic rock art becoming integrated into mainstream prehistory (2010: 67). This derived in part from his willingness to publish, with over a dozen journal articles to his name, including in the *Proceedings of the Society of Antiquaries of Scotland* and the *Proceedings of the Prehistoric Society*, alongside many entries in the journal of fieldwork record in Scotland, *Discovery and Excavation in Scotland*. For a while, he was Vice-President of the Ancient Monuments Society, while an academic conference on rock art was held in his name at the University of Glasgow in the early 1980s (Morris 2010: 67). Perhaps Morris's best-known popular legacy is his published list of 104 possible theories to explain what the motifs meant, each scored out of ten (Morris 1979: 15–28) but, as noted already, of more importance was the role he played in mentoring and inspiring others.

I first came across the work of Morris during my own research and fieldwork at the Cochno Stone and related carved outcrops near Faifley, West Dunbartonshire. I had been researching the story of the Cochno Stone, one of the most extensive rock art sites in Britain, which has a rich modern history of community engagement, antiquarian eccentricity, graffiti, and unorthodox heritage management (Brophy 2018, 2020). In studying the history of this site and a dozen smaller carved outcrops in the same area, Morris was my first port of call, notably his regional review that included the most comprehensive drawing of the Cochno Stone then published, despite his acknowledgement that he did not see the site before its burial in 1965 (Morris 1981: 124–126). Using Morris's valuable book as a roadmap to track down local rock art panels, including orientating myself in the landscape using his photographs, was fun. Some of the sites documented have not been recorded or found again since his fieldwork in the 1960s and 1970s.

To find out more, I booked a slot to look at his archival material held by HES. The scale of the archive and the diligence with which Morris had documented his research and fieldwork stunned me. Just a few hours revealed layers of information that I had not known and that had never been published, including photographs, sketches, newspaper clippings and letters from a local source who sent Morris news of new discoveries and snippets of information. Completely new details came to light, such as the garden context of one site, Auchnacraig 1, photographed by Morris surrounded by a garden lawn in the 1960s (see Figure 1), and the

fact that an unpublished and undocumented modest investigation had taken place at the Cochno Stone a few years before it was buried, with photos included. This treasure trove of information would come to inform my own future excavations and fieldwork, shed light on Morris's working methods, and influence site management. To test this potential further and as a pilot for a potentially more comprehensive project, I recently returned to the archive to investigate another area of Scotland with whose rock art I am familiar, Kilmartin Glen in Argyll and Bute.

The Morris Archive

The Ronald Morris Archive, held by HES (formerly the Royal Commission on the Ancient and Historic Monuments of Scotland (RCAHMS)) and available for public access by appointment in Edinburgh, consists of nine archive boxes of material (Figure 2) deposited by Stan Beckensall after Morris's death in 1992 (Beckensall 2007: 216). Some elementary cataloguing has been carried out although this was an analogue process consisting of organising records by region and alphabetical order (Ian Fraser pers. comm.). The archive is therefore a fascinating but daunting resource due to the sheer quantity of information, with only the most general record of its content.

The bulk of the collection comprises Morris's site files, presumably once in filing cabinets and betraying a legal mind's sense of order. These files consist mostly of A5 record pockets, which serve as record cards and small folders within which ancillary material is held; these are essentially information 'packs' for each site. At least one pack appears to exist for each site visited by Morris (in Scotland and beyond) (Figure 3). The front of each pack has basic information written or typed onto it, including site name, location, descriptions, notes, occasional sketches, and dates of fieldwork (mostly indicating the date of the first visit). A code was used to differentiate styles of markings, with stylised symbols drawn in red pen on most cards (see Figure 9). The information available for each site varies considerably across the archive, some with little more than the written description, but most with all manner of additional information within the pack: photographs, negatives, transparencies, letters, sketches, cuttings from other documents, rubbings (originals, tracings, or photocopies), and anything else considered worthy of record by Morris.

The archival information packs fill five boxes. A huge amount of additional material has not been catalogued but is partially sorted. A collection of annotated maps, clearly used in the field, includes early OS 1:25 000 map sheets with all rock art sites marked with a red ink dot. There are also folders of typed files and notes, extensive collections of slides and photographic prints, rock art rubbings, and considerable quantities of letters. Multiple offprints and hard copies of journals and books with a rock art focus are included, as well as inventories of Scottish archaeology published in the 1970s and 1980s by the Ancient Monuments Board. I have not yet been able to track down field notebooks, although the thousands of original notes, sketches, photos and rubbings across the archive suffice to explain what Morris did when in the field. Manuscripts and marked-up proofs for his publications (and unpublished writing) are also part of the archive.

Figure 2. The Morris Archive in the HES search room.

Figure 3. The Mid-Argyll archive information packs from the Morris archive.

In sum, this is a large archive. It will take considerable work and cost to make it usable for researchers. However, even my brief time with two small samples of material, from West Dunbartonshire and Kilmartin Glen, shows abundant potential for new revelations and research avenues that would reward any attempt to properly catalogue and digitise this resource.

Kilmartin Glen

Record packs for the dozens of rock art sites of Kilmartin Glen are included within the general run of Mid Argyll sites (Figure 3). Perhaps the easiest way to demonstrate the value of this material is to compare the published accounts of some sites, primarily in *The Prehistoric Rock Art of Argyll* (Morris 1977), with the archival material held for them. The book is little more than an illustrated inventory with a short (but helpful) introduction, but it remains one of the most significant books ever published on prehistoric rock art in the UK. Little detail is included in the book regarding Morris's fieldwork methodology, number of visits, or even when the fieldwork was done, and so in this respect the archive is invaluable.

The review below covers a small selection of the best-known rock art sites in Kilmartin Glen; it is intended to be illustrative of the range of material found in the Morris Archive rather than a comprehensive or representative overview. (There are over 250 rock art sites in this area (Jones 2006: 215).) For each site, the following information is given: the preferred name for the site; the Morris site code (ARG numbers, based on Morris 1977); national grid reference; and Canmore ID (the unique identifier for each site in Scotland's online National Record of the Historic Environment). Grid references are taken from Canmore, and sometimes differ slightly from Morris's own calculations.

Kilmichael Glassary 1 (ARG59, NR 8579 9348, Canmore ID 39451)

This site, in the village of Kilmichael Glassary towards the southern end of Kilmartin Glen, is a guardianship site managed by HES, enclosed by a metal fence and with an information board (Figure 4). There are in fact four panels noted here (Kilmichael Glassary 1–4) with panel 1 being by far the largest (RCAHMS 2008: 65). Morris devotes two pages to this site in his Argyll book (1977: 100–101) including a brief description and drawings of the various elements of the large panel.

The archive for this site contains a wealth of additional material that underpins and adds depth to the published account (Figure 5). This includes a very detailed typed record, with annotations in blue pen, and a red cup-and-ring motif sketched in the corner. This card records that Morris first visited in November 1966 with someone with initials 'MLM'. Within the pack are 12 black and white photos, some polaroid instant, each with a handwritten note and date on the back. There is also a faded photo of a man, 'Carl B Compton', standing on the stone leaning on the fence, dated to 24th September 1976. Negatives for the non-instant photos are included, some not developed into prints. A folded A4 page bears a sketch and description

Figure 4. Kilmichael Glassary rock art site in autumn 2020. Photo: K. Brophy.

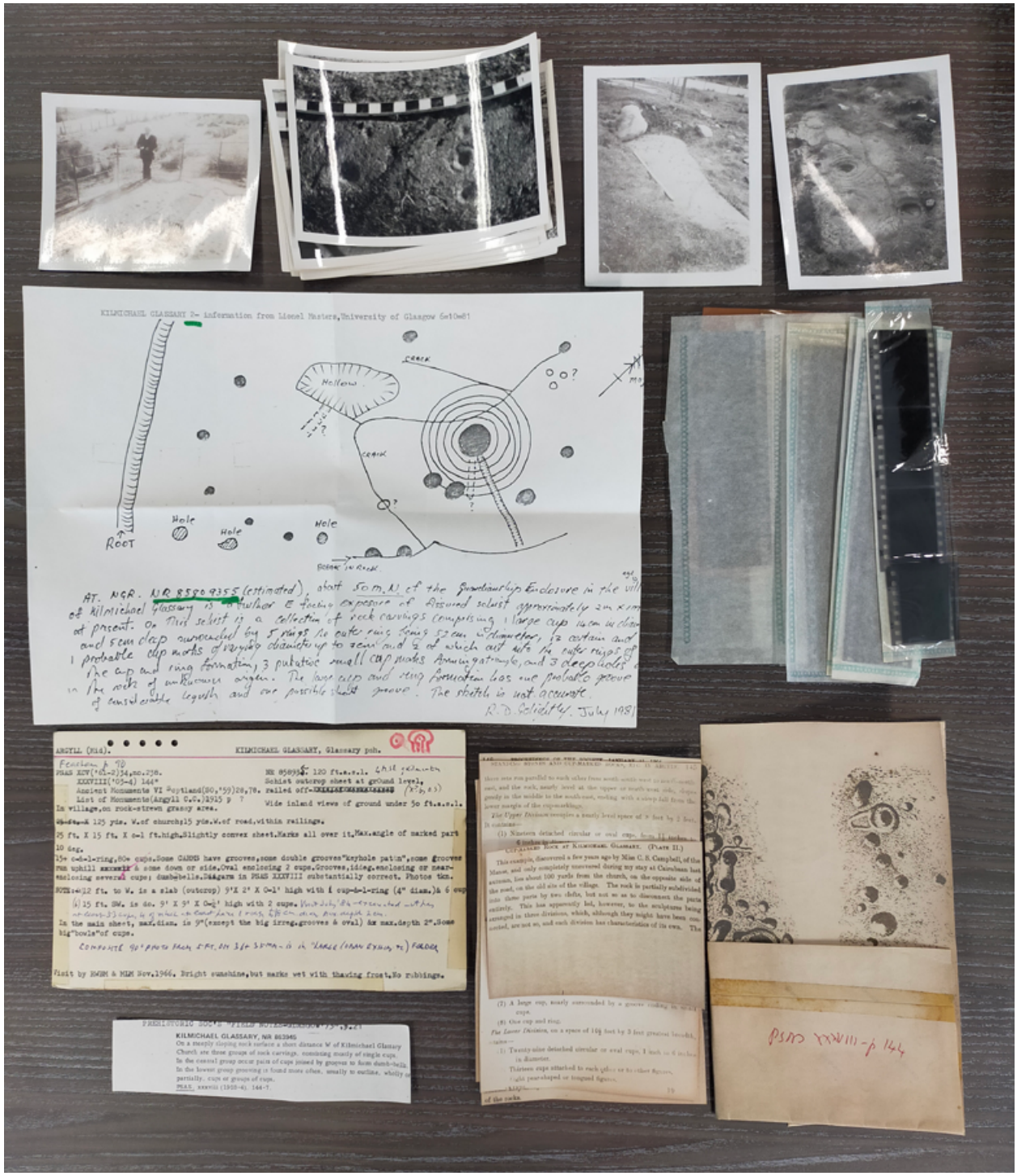

Figure 5. The Morris archival material related to Kilmichael Glassary 1, all of which was contained within the record folder in the bottom left of the image.

of Kilmichael Glassary 2, located near the fenced enclosure, written by 'RD Golightly' dated to July 1981, seemingly sent to Morris by Lionel Masters in October of the same year. There are relevant cuttings from a paper published by David Christison in the *Proceedings of the Society of Antiquaries of Scotland* on Argyll's rock art and standing stones (Christison 1904), a constant source of information for Morris in this region. Finally, there is a photocopied extract from the Field Notes of a Prehistoric Society trip to the area in 1975 pertaining to this site.

Observations can be made from this archival material. The photographs show scales ranging from photographic and survey scale bars to a pair of glasses, and that Morris used chalk to highlight natural cracks and features on the rock. Information on the back of photos is invaluable and includes the time of

day the photo was taken; correct light levels were very important to Morris in terms of extracting the maximum detail from the surface of the rock and he suggested visiting early in the morning, in the evening or in the winter (1981: 4). His photography tends to focus on the detail of the site and motifs rather than wider landscape views. Repeat visits are indicated on the information card and on photos, dated to 1964, 1973, 1982 and 1984. The Compton photo suggests Morris undertook fieldwork while writing his Argyll book, while most of the photos from 1973 indicate this was the main recording fieldtrip, and clearly Morris did not visit alone. Finally, this package of material suggests that he was still actively collecting (or being sent) material as late as 1984 (date of most recent photo), when he was in his 80s; he remained a magnet for information from various sources.

Torbhlaren 1
(ARG78, NR 8635 9452, Canmore ID 39558) and
Torbhlaren 2
(ARG78, NR 8622 9438, Canmore ID 39543)

These spectacular valley-bottom, whaleback schist outcrops lie about 1km upstream from Kilmichael Glassary along the River Add. They are each given one page in Morris's Argyll inventory (1977: 121–122). Both outcrops are described in terms of form and size. For Torbhlaren 1, seven weathered cup-and-ring motifs and 12 cup marks are described briefly, while the other outcrop has more symbols documented. Some local prehistoric information is also documented: an extant standing stone with cup marks, a standing stone removed in the recent past, and several flint scrapers found in the field and in the ownership of the farmer. Five photos accompany these sites in the book, some showing landscape setting, one depicting cup-and-ring marks highlighted in chalk. This site was subject to geophysical survey and excavation between 2004 and 2006, and the presence of rock art, standing stones and lithics as noted in the excavation report suggests this was 'an important complex of monumental activity' (Jones *et al.* 2011: 38). So far as I can tell, the Morris archive was not consulted during the writing up of this fieldwork.

There is potential for confusion regarding these sites, as Morris uses different numbering systems with Torbhlaren 1 in the archive published in the book as Torbhlaren 2. To further this confusion, Jones and his team named these outcrops Tiger and Lion Rock (Jones *et al.* 2011: 38), while Canmore uses the numbering system inconsistently. The ScRAP project adopted the Jones *et al.* nomenclature.

The pack for the site now called Torbhlaren 1/Tiger Rock has brief notes from two visits, in November 1966 and June 1969, the latter in better weather conditions, to view the worn carvings. Six black and white prints, some in quite a poor state, show the site, and are dated to October 1972, August 1974, and (presumably June) 1969. Negatives are also included, and together with the prints these suggest four separate visits over eight years. On the 1969 visit it was noted that the outcrop, 'aligns with Torbhlaren ... [standing stone] as its backsight on a notch in the hills to the NW, part of a midsummer sunset calendar?' To my knowledge, this observation was never published by Morris or discussed in the excavation report, but work by Jones *et al.* (2011) shows that the surrounding landscape was relatively open in the Neolithic period.

There is also information relating to a flint 'knife' found by the farmer, Bruce Thomson, near the outcrop, one of several lithics found at Torbhlaren at this time (Morris and Thomson 1969). The archive record includes notes about its examination by RBK Stevenson of the then National Museum of Antiquities of Scotland (NMAS), its petrology (Campbelltown flint), and a note that it was 'not used to cut these carvings'. Also included is a letter to Morris from Thomson written on September 4th, 1969. It begins, 'Dear Mr Morris, I am sending you the flint knife', this act having been delayed, as his aunt with an interest in archaeology had wanted to borrow it. He continues, 'one of these days I shall have a dig in the area where I found the flints as I have a feeling that there may be a few more relics beneath the soil...'. This is a fascinating insight into the discovery and early analysis of a lithic discovery within the vicinity of a rock art site. That the 'knife' was at one point considered to be a tool used to carve the motifs is interesting, and it is a shame that no photos of it were included. Lithics from the vicinity of these panels found by the current farmer, as well as by Thomson, are given a context by the wide range of stone tools and objects found by the excavation team around the site and jammed into fissures of these outcrops (Jones *et al.* 2011).

The Torbhlaren 2 pack (named Torbhlaren 3 in the archive) contains three black and white photos with negatives, and a simple sketch plan in colour showing the areas of the outcrop that Morris surveyed (Figure 6). There are also cuttings from a photographic print of a detailed drawing of the rock surface, some stuck together with tape; the carvings overlie a regular grid, reminiscent of a grid drawn onto the stone in chalk at Auchnacraig 1 in West Dunbartonshire (Morris 1981: plate 78). Finally, a photocopy of a rubbing of a cup-and-ring mark motif is included. Such tidy copies of rubbings were occasionally published by Morris, e.g., part of the nearby Ormaig panel (Morris 1977: 113) or as a gallery of motifs (Morris 1981: 2). These fragments of larger pieces of work hint at two aspects of Morris's practice: rubbings of motifs and large-scale 'mosaic' style images of rock art panels (see Achnabreck, below).

Figure 6. The archival material related to Torbhlaren 2 (called Torbhlaren 3 in the Morris Archive).

Temple Wood
(ARG77, NR 8263 9782, Canmore ID 39504)

Located further to the north, and part of the 'linear cemetery' (RCAHMS 2008: 8–9; Webb 2012: 24–25), Temple Wood is a complex multi-phased stone circle and cairn. Excavations by Jack Scott between 1974 and 1980 (Scott 1989) suggested that the site was in use from the Early Neolithic period, being converted to a burial monument in the Bronze Age. Two schist uprights in the stone circle have rock art motifs carved onto them as documented by Morris in his page-long focus on this site (1977: 120): a double 'spiral of six convolutions' some 26cm in diameter on two faces of Stone No. 9 (using the Scott nomenclature), and a pair of faint rings (without a cup mark) on Stone No. 11. Scott suggests these motifs were carved between 3000 and 3500 BC and had connection with Irish passage grave rock art (1989: 108). This is a rare instance of Morris dealing with a motif more closely linked to that tradition, but is afforded no special significance in his book, the focus being on description.

The archival material for this site is a rich resource, despite the modest scope and scale of the motifs. There are many photographs and negatives, some showing them very clearly (they are not easy to see in my experience), some photos being in colour, plus a colour transparency, together representing multiple visits. Some show that chalk was used to highlight motifs, including two colour photos where black chalk or charcoal seems to have been used. Four photos showing what are alleged to be axe carvings on the side slabs of a cist, annotated 'Temple Wood axes', date to a visit in 1973; the exact location is not clear, although there is a large open cist in the centre of Temple Wood. Multiple examples of genuine axe carvings on cist slabs in nearby Nether Largie North and Ri Cruin cairns (RCAHMS 2008: 32–35) give credence to the possibility of such carved motifs at Temple Wood. However, Morris seems unsure: on the back of one photograph, he calls these 'very doubtful' but on another he writes 'there <u>is</u> an axe!' (original emphasis). I have been unable to find any published reference to carved axes at Temple Wood, including in Morris's book, Scott's report (1989) or the RCAHMS inventory (2008). A colour photo, seemingly taken by Maarten van Hoek, shows a 'cupmarked slab WSW of Kilmartin' located at 'Slockavullin'; the location of this feature is unclear, this being the name of a small cluster of buildings nearby.

A rubbing of the spiral is included in the pack, in this case on heavy-duty tracing paper and in ink, most likely a tracing over the working rubbing. A very fuzzy photocopy of a rubbing of an 'axe' shape is also included, but this interpretation requires a good deal of faith. Sketches on scraps of paper are also included, one showing both standing stones and motifs, the other a remarkable original sketch by Jack Scott (Figure 7). This shows Stone No. 9 and there are hints of additional sketches in a blue pen overlying the pencil original. There is also an extract from Alexander Thom's 1971 book *Megalithic Lunar Observatories* which uses Temple Wood as a case-study. Typed annotations (presumably added by Morris) note that the next lunar standstill in the north will be in Spring 1987 or 1988 but that it would take 150 years of observations to build the stone circle as such a moon observatory. The underlining of passages in this cutting regarding landscape alignments suggests he checked these out in the field. There is no doubt that Morris was intrigued by the work of Thom in relation to cup-and-ring marks and spirals, rating one of Thom's theories ('right angle triangles') 9 out of 10 in his '104 theories' list (Morris 1989: 21–22); the terminology used in his notes about the backsight observation at Torbhlaren also suggests some openness to Thom's ideas.

Finally, the folder contains a letter from Stan Beckensall to Morris dated to 24th August, 1978 (Figure 7). Reporting on a four-day trip to Kilmartin and some good weather, Beckensall adds, 'Your book was very valuable, and I was able to see a large number of sites with its help'. The letter turns to Temple Wood and Beckensall's interest in what he calls the 'navel stone', describing it as 'like part of a great fat statue!', where rubbings were undertaken during his visit. This refers to a hollow in one exposed cist slab which looks like a huge cup mark. The letter includes a sketch map showing how this stone fits in with the monument complex. Accompanying this was a curious drawing on headed notepaper for the English Speaking Board. Presumably the work of Beckensall, the drawing is entitled *Temple Wood Scale Sketch of the Navel Stone*. Morris seems to have been unconvinced by this identification of a large cup mark, writing on the letter, 'Scott thinks this is an unfinished quern cutting'. Indeed, Scott was dismissive of what he called 'arcane suggestions' to explain this hollow including 'mother goddess and the like'; he suggests several standing stones were removed from the circle to make millstones in the past two centuries (Scott 1989: 92). The RCAHMS inventory confirms that this is not a cup mark, but a 'partly shaped millstone' (2008: 78) although both Scott and RCAHMS note the presence of a few possible small cup marks on stones at this site that were not noticed by Morris or Beckensall.

Cairnbaan 4
(ARG 24, NR 8388 9105, Canmore ID 39575)

This is another guardianship monument, on the north side of the Crinan Canal. The main site, Cairnbaan 1, within a fenced enclosure, consists of three outcrops covered with dozens of cup marks and cup-and-ring

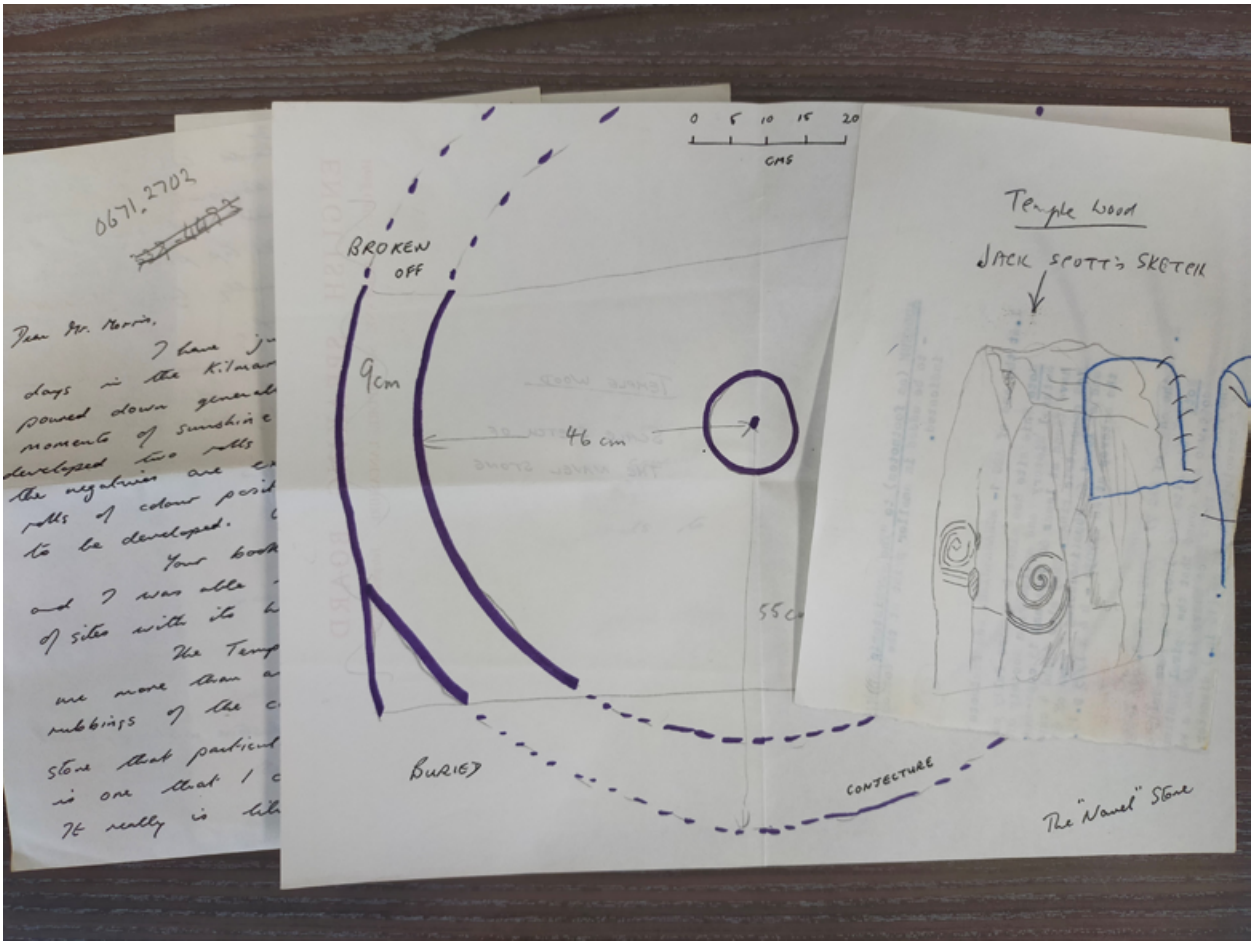

Figure 7. Temple Wood materials. Left to right: letter from Stan Beckensall; Beckensall's sketch of the 'navel stone' cup mark on headed notepaper; Jack Scott's sketch of the spiral on Stone No. 9.

marks, unusual linear grooves and lengthy gutters (RCAHMS 2008: 58). About 100m away is Cairnbaan 4, a site documented by Morris over two pages (Morris 1977: 64–65), although he called this Cairnbaan 2 in his book and archive. (The numbering used now in Canmore derives from ScRAP field recording, with four sites identified in this location.) This is a distinctive horizontal rock, exposed almost as a rectangle, upon which are carved complex cup-and-ring marks and some unusual motifs, such as a cup-and-ring mark with radial lines extending from it (RCAHMS 2008: 58).

The archive pack gives further insight into Morris's recording methodology in the field, which was largely based on good quality photography (Figure 8). The record card notes that this was 'one of the best sites to photograph', presumably because of its flat, well-defined rectangular surface. Black and white photos of this schistose outcrop show chalk liberally used. Motifs and notable cracks in the rock surface are shaded with white chalk and north arrows drawn onto the rock itself, again in chalk. Large scale overlapping photographic prints of the site were cut up and stuck back together, presumably to help with the preparation of final published drawings (Morris 1977: 64). This work was aided by previous drawings of the the carvings by Christison (1904) and of another site by Boyd and Smith (1887), extracts of which were included in the archive; however, it seems these were for use in preparation of drawings and not comparison in the field, as the archive card notes that they were not taken on the visit in November 1966. The chalk work seems to have been done during the fieldwork season of 1973. One photo shows an unnamed woman standing beside this panel; unusually there is no information or date written on the back of this image. This may be the same woman who appears with her back to the camera in a photo of the Achnabreck 3 panel published in the Argyll book (Morris 1977: 43).

Achnabreck 1
(ARG 3, NR 8557 9069, Canmore ID 39552)

Achnabreck is the most extensive rock art site in Britain (Morris 1974: 33; Watson, this volume), with multiple cup-and-ring marks and other related motifs carved across numerous panels on a hillside overlooking Lochgilphead at the southern end of Kilmartin Glen (RCAHMS 2008: 42–52). Part of the complex is a guardianship site surrounded by a Ministry of Works grey fence with boardwalk viewing platform. This was a pivotal site for Morris who

Figure 8. Selection of photos from the archive pack for Cairnbaan 4 (called Cairnbaan 2 in the Morris Archive) including parts of the mosaic for this site, evidence of chalk markings, general view of the site, and an unknown woman standing beside the panel.

published an in-depth paper about his fieldwork here (1974) as well as more modest (but still detailed for that book) entries in his Argyll inventory (1977: 30–33). The profusion of carvings on this stone and their interplay with the natural striations and fissures of the hillside seem to have been irresistible to Morris who spent a considerable time working here.

Despite the scale and complexity of this site, at first glance the archive packs for all three panels are relatively thin. The cover of the pack for Achnabreck 1 is unequivocal however, with the typed words 'THE MOST IMPORTANT SITE SO FAR SEEN' (Figure 9). There is so much detail here that it could not fit on the card so the typed words are crammed in. Unusually, there are sketches on the back of the pack focusing on triple and double spiral motifs. The pack contains cuttings from Christison (1904), more sketches of the spirals, notes from a Prehistoric Society conference in 1954, and a letter to the Ordnance Survey recommending updates to their Argyll map sheets, the latter attesting to Morris's impact of on public accessibility to rock art.

There are no photos of the site in the file but there is a remarkable insight into Morris's obsessive dedication to capture an accurate likeness – two prints from April 1970 show a huge collage of overlapping photos of the rock art surfaces pinned to a wall, in what Morris calls (on the back of one photo) his 'mosaic'; this was one basis for the many drawings he did of this site (Morris 1974, 1977). The raw material—the prints themselves—is stored in two boxes elsewhere in the archive, one entirely dedicated to mosaic photographs (Figure 10); large negatives suggest medium format photography was used, enhancing the level of detail.

The production of these mosaics is discussed in detail in Morris's report on his fieldwork at this site (1974). This was on a completely different scale to previous work, necessitating a team of student helpers and the support of the Inspector of Ancient Monuments. Before recording began, the team cleared the rock surface of all lichen and moss using 'three applications of a non-toxic [weed] killer' (Morris 1974: 38). The details recorded are remarkable.

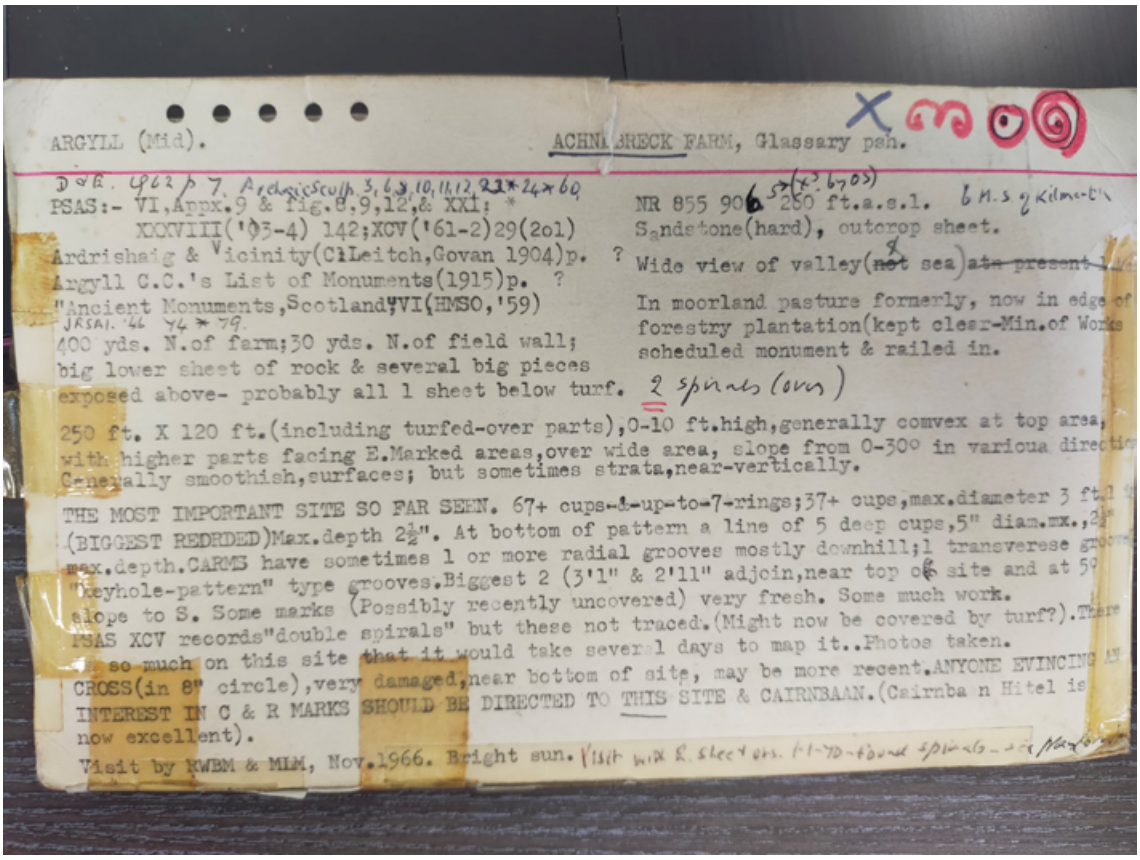

Figure 9. The record card for Achnabreck 1 from the Morris Archive. Note the red motif filing symbol top right.

Figure 10. Two boxes containing additional material in relation to Achnabreck including all of the photographs that form the mosaic for this site.

Work began in spring 1970, before the final moss-killing had been completed, when the writer made a full 'mini-aerial-survey'of the whole area bearing carvings. To achieve this, the site was first gridded and marked in rectangles of 70 × 50cm. White cord was laid in lines, vertically and horizontally, across the centres of each of the rectangles. The gridded rows were numbered from N to S and lettered from E to W. Then, using a wide-angle lens, each rectangle was photographed from a height of three feet, vertically above it, showing its grid number and letter and a scale. The resulting photograph showed the rectangle, with a small overlap all around, at a scale of almost exactly one twenty-fifth, in the 35 × 25mm film. Over 500 such photographs were taken to complete the 'mini-aerial-survey' (Morris 1974: 38).

This work is reminiscent in scale of the painting of the Cochno Stone in oil paints by Ludovic Mann in 1937 (Brophy 2020) but in this case carried out with a more traditional academic outcome in mind and with (presumably) no long-term damage being done to the site. The 500 plus photos are retained in the archive, a wonderful analogue resource. I would argue that published descriptions of this site are enhanced by an understanding of the archival material that underpins it. These show the scale of the labour that went into recording this giant site, but also shed light on Morris's working methods – the mosaic was constructed by overlapping hundreds of photos on the wall, a process aided by the inclusion of the chalk grid and other markers on the ground. His mosaics look rather like the 'crime boards' commonplace in TV police dramas—covered in notes, photos, and pins—and are the secret behind his accurate and clear drawings of so many rock art panels across Scotland.

Within the site packs are photos of team members recording and doing rubbings on the site. One of these photos, published in his inventory (1977: 30), shows three people working on a sloping panel. This relates to a second phase of recording, in June 1970, that followed the photographic survey. The surface of the outcrops was roughly chalked, then rubbings taken using cellophane strips that measured from 0.55m to 3m in length. These were copied and scaled down back at RCAHMS in Edinburgh (Morris 1974: 38). They were compared to earlier rubbings of this site by Romilly Allen and then used as the basis for drawings using the same grid as the earlier photographic survey.

The boxes of photographs contain a further wealth of material on Achnabreck, over and above hundreds of photographs. There is further correspondence, such as a letter from Anna Ritchie, and an annotated bound set of original and annotated images; both appertain to his 1974 paper about this site, the latter in effect being a marked-up proof of the illustrations. As with the Cochno Stone, Morris was the first to produce a comprehensive illustration of this site (Morris 1981), and the fact that he called Achnabreck 'this great rock' (Morris 1977: 33) reflects the length of time he must have spent staring at its surface on his hands and knees.

Discussion

As I returned the material described above, I noted bulging packs for other sites, including Ballymeanoch, while the folder for Brainport Bay on Islay included correspondence from the excavator of that site, Euan MacKie (see Mackie 1981). There is a huge and largely untapped resource here, as indicated by this brief survey of a handful of the many hundreds of sites covered in the archive. There is clearly benefit to be derived from further, more comprehensive work with this archive, starting with cataloguing and digitising the content to allow easier access for researchers. I want to conclude by noting a few immediate areas of research that suggest themselves from the Kilmartin and Cochno archive material that could follow on from this.

Morris in the field

There has been little published detail on Morris's fieldwork methodology or pattern of working beyond that in the Achnabreck report (Morris 1974) which, for various reasons, was atypical. The archive sheds light on the frequency of visits that underpinned his published accounts, what Thom called 'extensive research in the field' (foreword in Morris 1977: 5). This is hinted at elsewhere, too. In his Galloway and Isle of Man inventory, Morris notes, 'every site listed in this book has been visited by me at least once. Many of them have been visited much more often than that – some perhaps a dozen times' (1979: 30). Later, Morris notes, in relation to sites in southern Scotland, 'I have visited some of them at least twenty times to get information and the right weather conditions for diagrams or photographs' (Morris 1981: 15). The archive would therefore allow some detail to be added to these claims in terms of frequency and number of visits, reasons for return trips, and the time of day that recording was most efficacious. Some fieldwork can be related to specific funded projects or publications, although it remains unclear to what extent he was visiting known sites, as opposed to actively seeking new ones.

The creation of Morris's site plans was underpinned by extensive photography in various formats, the liberal use of chalk, and his own rubbing technique, all detailed in his archive. The chalk grids used as a framework to help him accurately record the shape, size and location of motifs rarely make it into his published photography, and this clever idea works very well for what can be

confusing sites to document. The archive allows a unique insight into the form and arrangement of these grids, allowing us to interrogate his drawings more clearly, and demonstrates the diligence and working patterns that led to the creation of the detailed drawings and descriptions that he made throughout his career. The archive contains his 'workings', which can be consulted and checked, and underpin the assertions made in his books and journal articles. This is a material record of knowledge generation and, in some cases, remains the only primary record of these sites ever made.

Correspondence and collaboration

It is clear in the archive than Morris was well connected – letters and supplementary material from archaeologists such as Anna Ritchie, Lionel Masters, Jack Scott, Maarten van Hoek and Stan Beckensall show his level of engagement with professionals and amateurs alike. The letter from the Torbhlaren farmer mentioned above shows another side to this correspondence. I found an equally fascinating document in relation to rock art in West Dunbartonshire: a letter from a local 'informant', a Mr Price with a sketch map of rock art locations and other local landmarks to assist Morris on a visit. Price then visited sites with Morris, and we can see in his photos and field visit notes that he was rarely alone, visiting sites with his wife, friends, local people and other archaeologists. These appear to be convivial and enjoyable trips and he seems to have been on good terms with landowners and knowledgeable local people. He did not work in isolation, nor was his work detached from archaeological realities, and he was not afraid to embrace and learn from the work of others, including David Christison, Romilly Allen, Sir James Simpson, Ludovic Mann, or Mr Thomson the farmer. The evidence from the archive is supported by the collaborative publications that marked Morris's rock art career (listed in full in Boughey 2010: 79).

Erosion and management

The mosaic photographs and negatives in the archive present a good opportunity to combine the analogue approach of Morris with new digital technologies. One of the key aspects of ScRAP was the standardised recording of almost all rock art sites in Scotland through paper and photographic records, and 3D photogrammetry models (Barnett *et al.* 2021). The latter are available to view online, and form a crucial baseline from which all future assessments of site condition and any ongoing erosion can be monitored and quantified. The Morris Archive, I would argue, provides another, historical, baseline for many sites, in the form of medium format or high-quality overlapping photographs. These could be digitised and used to create 3D models of these sites as they were between 1969 or 1973, half a century before ScRAP recording. Understanding erosion and managing this process has become increasingly urgent due to the ongoing climate emergency, with rock art an especially vulnerable heritage resource. 'Worryingly, climate change is destabilising the chemical balance of certain rock types, particularly sandstone, and enhancing their rate of erosion' (Barnett *et al.* 2021: 66). A comparative study of 3D models of the same rock art sites across 50 years would allow an invaluable insight into the early impacts of climate change and inform management strategies in the coming decades.

One final thought. Just like the rock art itself, the Morris archive is fragile, and this will only get worse with time. Almost all the packs and mosaic fragments are held together with sticky tape which is browning and failing. There is a chance that even the most rudimentary browse in the boxes will separate some smaller elements of the archive from packs and cards, detaching some material from its context, perhaps forever. The peculiar size of the files means larger documents are folded to A5 or smaller, another potential source of damage. While storage of the archive boxes themselves by HES will, of course, be exemplary and appropriate, within them there are thousands of photographs and negatives, some of which are fading or starting to stick together. It is imperative that resources are found to organise, digitise and properly manage the materials within the archive, to ensure it remains a coherent and useful legacy of Morris's work for future generations of researchers.

Conclusion

In his 1978 letter to Morris, Stan Beckensall closes with these words:

> I have often thought that with my collection of photographs of Yorkshire and Northumberland and Argyll sites and with all of yours, that you and I could produce a really good, well-illustrated book on carvings in north Britain!

A draft version of a book entitled *Early British Rock Carvings* by Morris is included in the archive as a complete typed and copy-edited manuscript, covering all areas except the Channel Islands and the Isle of Man. This perhaps became the basis for one of his final publications, a paper in the *Proceedings of the Prehistoric Society* entitled 'The prehistoric rock art of Great Britain' (Morris 1989) although I have not yet been able to compare the two pieces of work. Despite never getting round to writing that definitive account together, the published works and archives of Stan and Ronald are testament to their ongoing legacy and impact within and beyond British archaeology.

In his self-published book *Glasgow's Secret Geometry*, Harry Bell (another notable character in the Scottish archaeology scene) wrote about meeting Ronald Morris in the early 1980s at the aforementioned seminar on rock art organised by the University of Glasgow, an event called *Art on the Rocks* (Bell 1994). Bell had a fruitful conversation with the much in-demand guest of honour, Morris himself, who he describes as a 'grey-suited, grey-haired octogenarian'. This seems very much in keeping with the image of this man who is often described as 'lawyer and rock art expert', someone who seems to have dressed in a shirt and tie even as he conducted fieldwork. Anyone I have spoken to who met Morris remembers him as a nice old man. To an extent, he played on this in his own writing, noting in his south Scotland book that 'at my time of life—77 years of age—there does not seem time for me to cover these [cup-marked sites] adequately' (Morris 1981: 4). Yet by the age of 77, he had already completed almost two decades of ground-breaking and important work – work that, crucially, he had documented as perhaps only a lawyer could, with more than due diligence.

References

Barnett, T., J. Valdez-Tullett, L.M. Bierketvedt, F. Alexander, S. Jeffrey, G. Robin and M. Hoole. 2021. *Prehistoric Rock Art in Scotland: Archaeology, Meaning and Engagement.* Edinburgh: Historic Environment Scotland.

Beckensall, S. 2005. *The Prehistoric Rock Art of Kilmartin*. Kilmartin: Kilmartin House Trust.

Beckensall, S. 2007. How the study of rock-art began and developed, in A. Mazel, G. Nash and C. Waddington (eds) *Art as Metaphor: The Prehistoric Rock-Art of Britain*: 205–229. Oxford: Archaeopress.

Bell, H. 1994. *Glasgow's Secret Geometry*. East Kilbride: Leyline Publications.

Boughey, K. 2010. The role of the amateur in the study of UK prehistoric cup-and-ring rock art, in T. Barnett and K. Sharpe (eds) *Carving a Future for British Rock Art. New Directions in Research, Management and Presentation*: 64–80. Oxford: Oxbow Books.

Brophy, K. 2018. 'The finest set of cup and ring marks in existence': the story of the Cochno Stone, West Dunbartonshire. *Scottish Archaeological Journal* 40: 1–23.

Brophy, K. 2020. The Ludovic technique: the painting of the Cochno Stone, West Dunbartonshire. *Scottish Archaeological Journal* 42(2): 85–100.

Christison, D. 1904. On the standing stones and cup-marked rocks, etc., in the valley of the Add and some neighbouring districts of Argyle. *Proceedings of the Society of Antiquaries of Scotland* 38: 123–148.

Boyd, D.A. and J. Smith. 1887. Notice of a rock surface with cup-marks and other sculpturings, at Blackshaws, West Kilbride, Ayrshire. *Proceedings of the Society of Antiquaries of Scotland* 21: 143–151.

Jones, A. 2006. Animated images. Images, agency and landscape in Kilmartin, Argyll, Scotland. *Journal of Material Culture* 11: 211–225.

Jones, A., D. Freeman, B. O'Connor, H. Lamdin-Whymark, R. Tipping and A. Watson. 2011. *An Animate Landscape: Rock Art and the Prehistory of Kilmartin, Argyll, Scotland*. Oxford: Windgather Press.

Mackie, E. 1981. Wise men in antiquity? In C.L.N. Ruggles and A.W.R. Whittle (eds) *Astronomy and Society in Britain During the Period 4000–1500 BC* (British Archaeological Reports British Series 123): 128–137. Oxford: BAR Publishing.

Morris, R.W.B. 1964. Inscribed stones in Dunbartonshire. *Transactions of the Ancient Monuments Society* 14: 77–117.

Morris, R.W.B. 1974. The petroglyphs at Achnabreck, Argyll. *Proceedings of the Society of Antiquaries of Scotland* 103: 33–56.

Morris, R.W.B. 1977. *The Prehistoric Rock Art of Argyll*. Poole: Dolphin Press.

Morris, R.W.B. 1979. *The Prehistoric Rock Art of Galloway and the Isle of Man*. Poole: Blandford Press.

Morris, R.W.B. 1981. *The Prehistoric Rock Art of Scotland (except Argyll and Galloway)*. (British Archaeological Reports British Series 86): Oxford: BAR Publishing.

Morris, R.W.B. 1989. The prehistoric rock art of Great Britain: a survey of all sites bearing motifs more complex than simple cup-marks. *Proceedings of the Prehistoric Society* 55: 45–88.

Morris, R.W.B. and B. Thomson. 1969. Torbhlaren, Kilmichael Glassary: cup-and-ring marked stone: flint scrapers *Discovery and Excavation in Scotland* 1969: 6.

RCAHMS. 2008. *Kilmartin. An Inventory of the Monuments Extracted from Argyll Volume 6*. Edinburgh: HMSO.

Scott, J. 1989. The stone circles at Temple Wood, Kilmartin, Argyll. *Glasgow Archaeological Journal* 15: 53–124.

Thom, A. 1971. *Megalithic Lunar Observatories.* Oxford: Oxford University Press.

Webb, S. 2012. *In the Footsteps of Kings. A New Guide to Walks in and around Kilmartin Glen*. Kilmartin: Kilmartin House Trust.

5

Close encounters: visibility and accessibility of Atlantic rock art in Scotland

Tertia Barnett, Joana Valdez-Tullett and Linda Marie Bjerketvedt

Introduction

Stan Beckensall's dedication to recording and promoting prehistoric rock art in Britain has inspired generations of people, from local communities to students and professional practitioners. In a round-about way, his contribution led to the development of Scotland's Rock Art Project (ScRAP) in 2017. ScRAP was initiated by one of the authors of this article following her experience as Project Officer for the Northumberland and Durham Rock Art Project (NADRAP) in 2004–2006 (Barnett 2010) which, in turn, built on Beckensall's work in this region and the digitisation of his archive by Newcastle University in 2005 (Mazel 2005). Between 2017 and 2021, ScRAP worked with communities across Scotland to record, research and raise awareness of prehistoric rock carvings.

One strand of our research followed the principle of landscape archaeology, introduced to rock art studies by Richard Bradley in the 1990s (e.g., Bradley 1991, 1997). Bradley's collaborations with Beckensall prompted valuable discussions about the relevance of landscape in comprehending Atlantic rock art, the latter frequently drawing on observations from his own extensive fieldwork in Scotland and England (e.g., Beckensall 1999, 2001, 2005, 2009). Landscape approaches offered new perspectives on Atlantic rock art by enabling researchers in Britain and parts of Europe to move away from studying the motifs and their meaning in isolation, and focus on the significance of their location (e.g., Bradley 1991, 1997; Enlander 2013; Johnston 1991; Jones *et al.* 2011; O'Connor 2006; Purcell 1994, 2002; Valdez-Tullett 2019; Waddington 1996, 1998). The emergence of GIS-based analyses, underpinned by landscape theory, positioned Atlantic rock art firmly within mainstream archaeology (e.g., Bradley 1997; Fairén-Jiménez 2007; Freedman 2011; Gaffney *et al.* 1995; O'Connor 2006; Valdez-Tullett 2019).

While our understanding of Atlantic rock art has advanced considerably in the last three decades, there are still many questions to tackle, from the detail of the *chaîne opératoire* in the process of creating rock art to the bigger picture concerning its role in prehistoric society. Although various theoretical standpoints have emerged since the development of landscape studies, a contextual approach remains essential for addressing the significance of open-air rock art. There is also a need to broaden our investigations beyond specific sites or areas in order to identify universal patterns and variances in the character of the carvings (Sharpe 2012).

ScRAP aimed to contribute new insights through analysing prehistoric carvings across Scotland using detailed data co-produced with trained community teams. Situating our analysis within a national scale of research enabled us to revisit and test certain notions of landscape setting that have become entrenched in our narrative of rock art. As part of our wider study, analysis of visibility and mobility produced results that both challenge and refine previous views. In considering these issues, we explored a series of related queries from the perspective of someone moving through the landscape. To what extent was rock art visible, and from where? Was rock art situated on or close to natural routeways? Were other contemporaneous monuments more, or less, accessible than rock art? This article discusses our preliminary results and their implications for appreciating how rock art was encountered within the prehistoric landscape.

Research approach

One of the key objectives of ScRAP was to compile a consistent database for addressing specific research questions through comparative analysis of rock art from the entire country. Working alongside twelve trained community teams, we investigated 1630 'panels' (carved outcrops and boulders), representing over half the known rock art in Scotland (Figure 1). A standardised methodology was used to capture detailed information and 3D models for 1110 panels located and verified as rock art (Barnett *et al.* in press). The database is publicly accessible for future research, management and general interest on the ScRAP website (www.rockart.scot) and Canmore (the online record for Scotland's Historic Environment: www.canmore.org.uk).

We adopted a multi-scalar approach for analysing this large dataset. This afforded a better understanding of

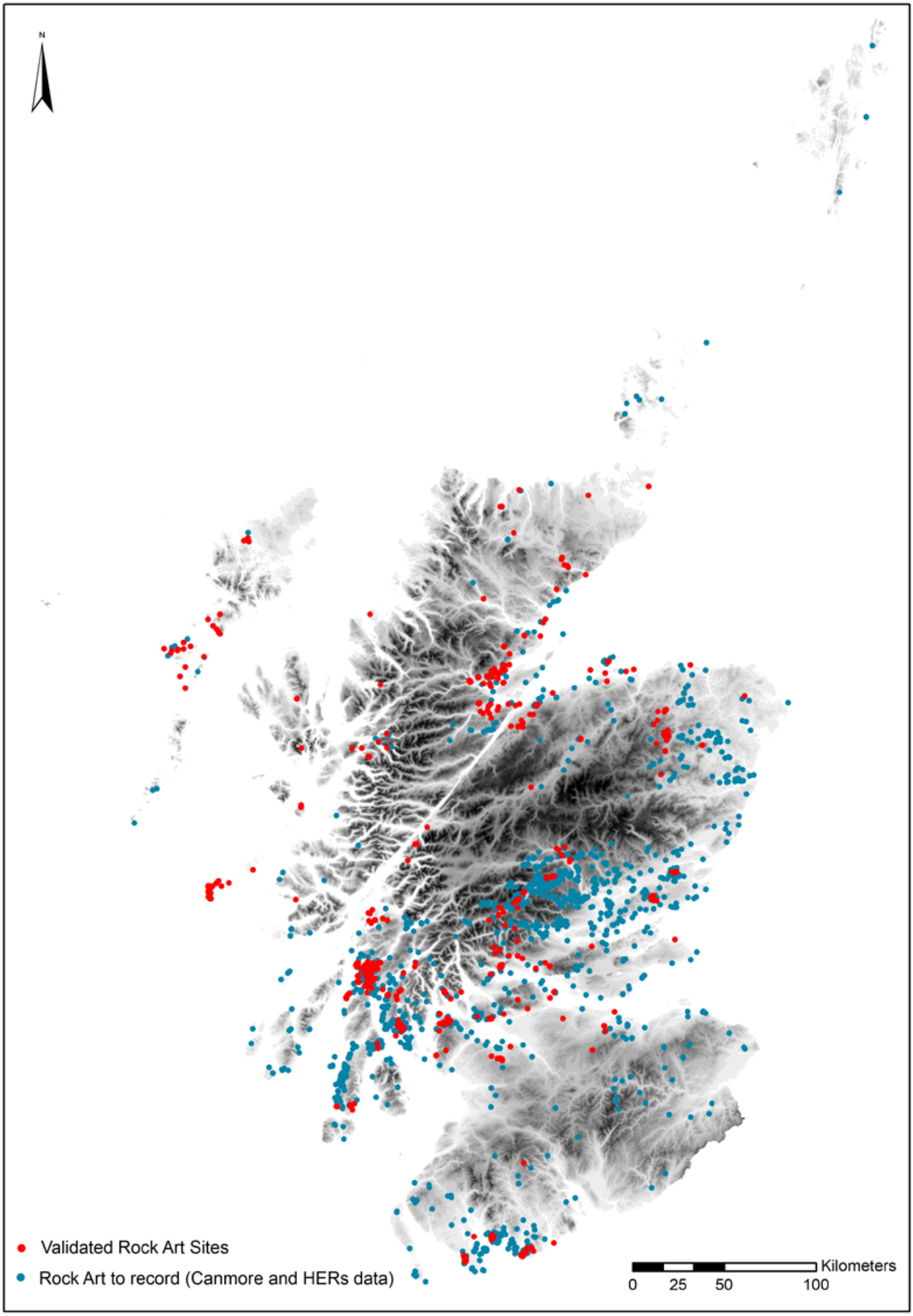

Figure 1. Distribution of prehistoric rock art in Scotland, differentiating between panels investigated and not investigated by ScRAP.

regional similarities and variabilities which, in turn, allowed us to revisit certain established ideas. Small- and medium-scale analyses were used to interrogate 3D models of all recorded rock art panels. Details of motif types, their variations, compositions and range, carving techniques, and the nature of the rock on which they are carved were extracted and assessed according to a categorical system specifically developed for Atlantic rock art (Valdez-Tullett 2019; Valdez-Tullett *et al.* forthcoming). The large-scale analysis focused on the contexts of panels in 16 case study areas from different parts of the country, selected on the basis of their geomorphological diversity, concentration of rock art and geographical spread (Figure 2, Table 1). The panels in each area were explored in relation to 18 variables, ranging from physical characteristics (such as soil, geology, slope and aspect) to cultural attributes (including land use and spatial relationship with different types of prehistoric monuments), as well as landscape experienced through visibility and movement (Bjerketvedt *et al.* forthcoming). We applied a suite of spatial and computational tools, including Agent-Based Modelling (ABM) for determining mobility, and assessed the veracity of our results using significance testing methods (in this case, Kolmogorov-Smirnov (K-S) test). Finally, we developed Multiple Component Analysis (MCA) and Multiple Response Permutation Procedure (MRPP) analyses to identify groupings and key patterns of characteristics across the dataset, revealing differences and similarities of rock art across Scotland.

Space does not permit a complete overview of our research, and this article focuses only on our findings for visibility and mobility in relation to how rock art may have been encountered in prehistory. We acknowledge that isolating these specific variables from the wider analysis is not a true reflection of the more holistic study that we undertook. We are also aware that privileging these variables without addressing the character of the carvings or other sensory and material dimensions of rock art production and use provides an incomplete picture (e.g., O'Connor 2006). Nevertheless, we consider that the results discussed here open new lines of enquiry and provide a fresh view of rock art by situating it within the experienced landscape for Scotland as a whole. Fuller accounts of all our methods, results and interpretations, including the work discussed here, are set out in Bjerketvedt *et al.* forthcoming and Valdez-Tullett *et al.* forthcoming.

Table 1. Number of panels validated and used in the large-scale analysis for each case study area.

Case study area	Total validated panels	*In situ* panels analysed	In monument	Moved/relocated	Natural features	Not found/destroyed	Other
Faifley	25	13	0	0	2	10	0
Port of Menteith	83	46	0	1	13	21	2
Tiree	32	20	0	0	4	7	1
Kilmartin North	112	68	5	3	0	31	5
Kilmartin South	44	23	1	0	1	14	5
Kirkcudbright	139	83	0	0	8	47	1
Cairnholy	43	26	2	8	0	4	3
Machars	79	65	0	0	2	5	7
Bute	128	55	3	22	2	44	2
Strath Tay	42	34	1	0	2	4	1
North Loch Tay	40	22	0	0	6	10	2
Mid Loch Tay	53	45	0	2	3	0	3
South Loch Tay	40	25	1	1	3	0	10
Inverness North	112	71	2	25	8	6	0
Inverness South	80	28	21	10	4	13	4
Western Isles	28	7	1	0	4	5	11
TOTAL	1080	631	37	72	62	221	57

Visual encounters

Visibility and intervisibility have long been recognised as important in understanding how past landscapes were organised and experienced (e.g., Gillings 2015; Wheatley and Gillings 2000, 2002). Visibility has been integral to Atlantic rock art research since Bradley's pioneering work in the 1990s, building on the premise that rock art is not randomly located but carefully structured within the landscape, and panels are visually interconnected with areas or features of significance (Bradley 1997; Bradley *et al.* 1993). Identifying key patterns and trends in this visual network has potential for understanding how rock art was used and perceived in the past.

Various techniques, including GIS modelling, *in situ* observation and map-based analyses, have been applied to investigate the visual relationship between rock art and landscape. In Britain, research has focused on specific areas with concentrations of rock art, principally Northumberland, Ilkley Moor, Dumfries and Galloway, and Kilmartin (e.g., Bradley 1991, 1996, 1997; Bradley *et al.* 1993; Fairén-Jiménez 2007; Gaffney *et al.* 1995; Jones *et al.* 2011; Valdez-Tullett 2019; Waddington 1996, 1998; Winterbottom and Long 2006), while comparable approaches have been applied in

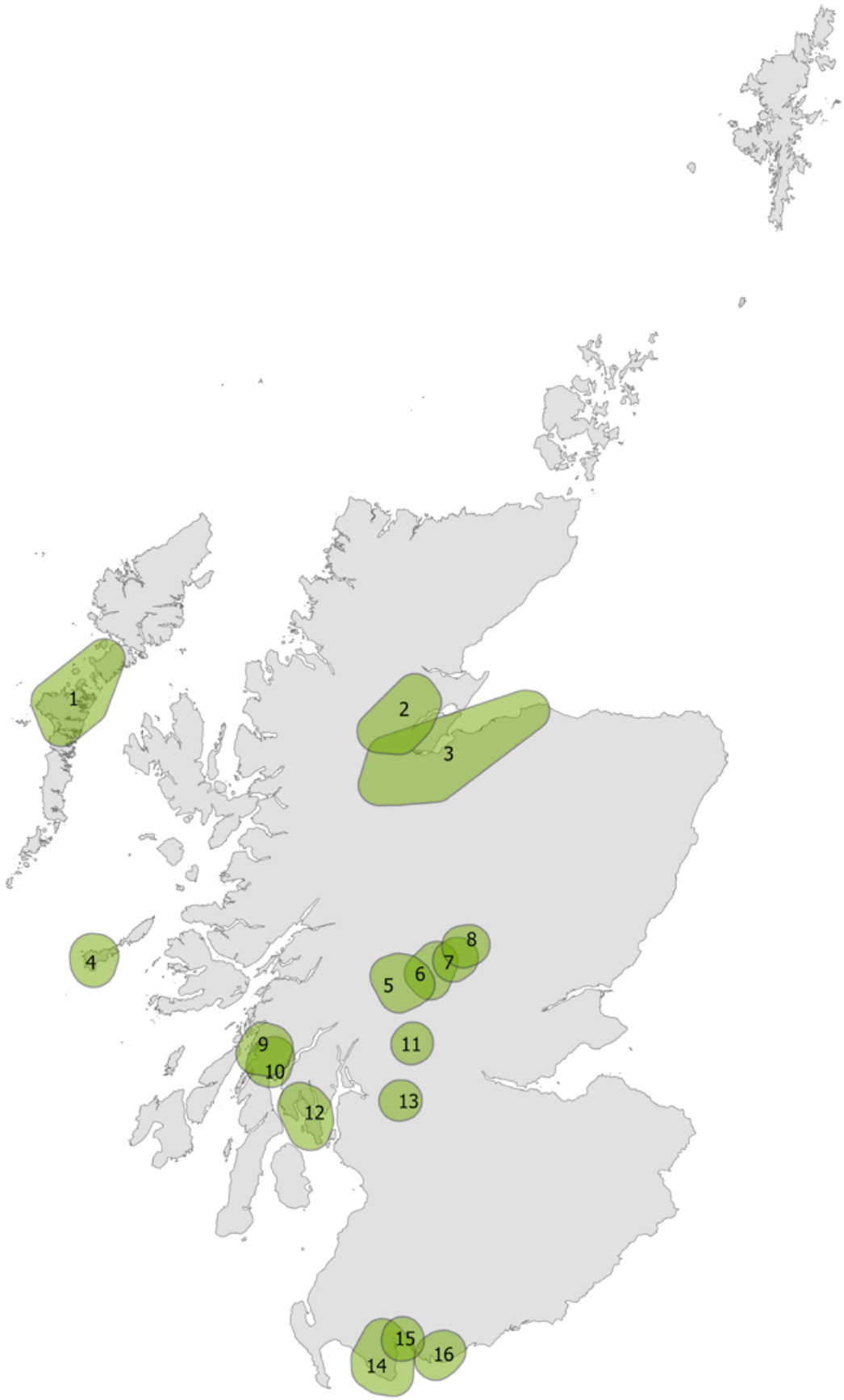

Figure 2. ScRAP case study areas used in the large-scale analysis: 1. Western Isles, 2. Inverness North, 3. Inverness South, 4. Tiree, 5. South Loch Tay, 6. Mid Loch Tay, 7. North Loch Tay, 8. Strath Tay, 9. Kilmartin North, 10. Kilmartin South, 11. Port of Menteith, 12. Bute, 13. Faifley, 14. Machars, 15. Cairnholy, 16. Kirkcudbright.

Ireland, Portugal and Galicia (e.g., Bradley and Valcarce 1998; Bradley *et al.* 1994; O'Connor 2006; Purcell 1994; Valdez-Tullett 2019). Studies have investigated views from panels towards natural and cultural features, views from panels in relation to human and animal mobility, intervisibility of panels and other features within the landscape, and visibility of rock art within the surrounding terrain.

Most of these studies have drawn similar conclusions. Many propose that the visual relationship between rock art, landscape features, and movement was meaningful and deliberate (e.g., Bradley 1997; Bradley *et al.* 1993; Fairén-Jiménez 2007; Jones *et al.* 2011; Waddington 1998). Specifically, panels appear to overlook and define fertile areas, natural routeways, and other significant features or locations. Some authors suggest that rock art marks important nodes, and demarcates thresholds between contrasting landscapes (Bradley 1991, 1997; Bradley *et al.* 1993). Rather than acting as way-markers signposting routes through the landscape, the carvings are viewed as a mechanism for controlling mobility, communicating information, and altering the perceptions and experiences of people moving through the terrain. Bradley argues that rock art creates a 'pattern of land tenure based on paths, places and viewpoints' (Bradley 1997: 7), while carved rocks are also considered to have been focal points for people travelling through the landscape within the context of seasonal mobility (e.g., Bradley 1997; Waddington 1996). Bradley's (1997) proposal that more complex carvings are situated at major entrance and exit points within the landscape and along routes leading towards them is supported by pioneering visibility studies in Kilmartin (Gaffney *et al.* 1995; Jones *et al.* 2011). Jones *et al.* (2011) also argue for a hierarchy of visibility defined by different categories of panels. In their study, complex panels (featuring motifs with three or more rings), for example, seem to have lower visibility and occupy more hidden locations. Certain outcrops displaying outstanding complexity and frequency of motifs—notably at Ormaig and Achnabreck— are considered as nodal sites directed outwards to a wider audience approaching Kilmartin, in contrast to less elaborately carved rocks that form a focus for recurrent ritual activities (Jones *et al.* 2011). While these studies primarily centre on the directionality and extent of views commanded from panels, the notion that rock art was intended to be encountered and engaged with as part of a dynamic network of movement, visibility and activity is implicit.

Our research aimed to test and refine these assertions through statistical, spatial and computational analyses of rock art from different regions and landscapes within Scotland. Part of our study investigated visibility from panels across the landscape using viewshed and cumulative viewshed analyses. In this article, however, we focus on views *towards* the panels, and their visibility in relation to the local terrain and human movement. We discuss trends in the physical characteristics of the panels, their visibility from different distances, their spatial relationship to patterns of mobility, and the implications of the slope and aspect of the terrain in which they are located.

This approach is not without limitations, not least the inherent biases in rock art survival and discovery (Barnett *et al.* in press). Rock art survives preferentially in more marginal areas with less intensive land improvement and development, for example, and 66% of all panels recorded during ScRAP are currently situated in rough grazing or moorland. Many panels are obscured by vegetation and woodland, while systematic survey has been limited in certain areas of the country, particular north-western Scotland. While acknowledging these biases, we aimed to minimise further inaccuracies by only analysing rock art on outcrops fixed in their original location to ensure that their spatial data are unchanged since prehistory. Although this applies to just 45% of recorded rock art in Scotland, our research still incorporated 631 panels—a statistically significant sample and the largest ever analysed for Atlantic rock art.

Furthermore, visibility and movement are fundamentally structured by the physical characteristics of the terrain but can also be strongly affected by emotive and ephemeral agents, such as shifting light and weather conditions, seasonal vegetation changes, as well as cultural traditions, local customs and knowledge, individual experiences, and memories. Although these present considerable challenges to reconstructing past perceptions of rock art, studying visibility and mobility networks can nevertheless provide a broad insight into how visual engagement may have been shaped in prehistory.

Inconspicuous panels

A characteristic of Atlantic rock art is that carved rocks and stones are rarely prominent features in the landscape (Bradley 1997). The trend for rock art across Scotland conforms to the wider pattern elsewhere in Britain and Europe. Panels are predominately low-lying or flush with the ground, with flat or gently sloping carved surfaces (Table 2, Figure 3). The notable exception is the island of Tiree where carvings—almost exclusively cup marks—tend to be located on large, upstanding gneiss outcrops ('cnocs') visible from some distance in the relatively flat landscape (Figure 4). There are other anomalies scattered across the country. In Kilmartin, for example, Lion Rock at Torbhlaren is a 3.9m-high schist outcrop forming a distinctive feature

Table 2. Height and carved surface incline of all validated rock art panels in Scotland (n=1110).

Maximum height above current ground level				Carved surface incline	
0–0.3m	0.3–0.7m	0.8–1.1m	>1.1m	0–20°	>20°
49%	28%	12%	11%	87%	13%

Figure 3. Carved outcropping rock at Balmacnaughton, Perthshire. The panels are flush with the ground and only visible when close-by. Photo: ScRAP © HES.

Figure 4. Carved gneiss outcrop at Cadruim, Tiree forming a prominent landscape feature, in contrast to most rock art panels in Scotland. Photo: ScRAP © HES.

in the flat valley bottom (Jones *et al.* 2011). This is also one of the most extensively carved panels in the area. There is no consistent relationship between physical prominence and quantity or complexity of carvings, however. With the exception of Achnabreck, all other extensively carved panels around Kilmartin are low features, rising no more than 0.6m above current ground level. Similarly, elsewhere in Scotland elaborately carved panels are generally inconspicuous, whereas obvious panels tend not to be extensively decorated, although the anomalies need to be scrutinised, both in terms of the extent and character of the carvings, and their contextual relationships within the immediate and wider landscape.

Far from being conspicuous landmarks, most panels in Scotland are unobtrusive and only visible when viewed from close-by, even though their general location may have been evident from some distance, depending on the local terrain and vegetation. As most areas in Scotland with rock art contain upstanding, obvious outcrops or boulders, the selection of relatively indistinct surfaces for carving seems deliberate. This has other implications for their visibility as turf and vegetation can quickly obscure panels that are low or flush with the ground. Regular clearing is often necessary to keep the carvings exposed, raising questions about whether panels were curated to maintain visual access, or revealed at particular times through more substantial turf and vegetation removal, or indeed whether the initial act of carving was more important than recurrent visual access (e.g., Jones 2012; Jones *et al.* 2011).

Simulating visibility and intervisibility

During ScRAP, visibility and intervisibility were investigated for 18 case study areas using a range of computational approaches. Intervisibility modelling establishes the visual connection between panels by identifying how many times a panel is 'seen' from another panel, taking into account the nature of the terrain, height of the observer, and distance (e.g., Wheatley and Gillings 2002). Intervisibility has implications for understanding the extent to which panels, or activities taking place on and around them, were connected through a visual network, offering insights into how the rock art was used and encountered. Reverse viewshed modelling, on the other hand, determines how visible a panel is from anywhere in the landscape with regard to the terrain, the height of the panel, and the distance from which it is being viewed (e.g., Alberti 2017; Fábrega-Álvarez & Parcero-Oubiña 2019; Fisher 1994; Ogburn 2006). This allows us to evaluate the visual prominence of specific panels and clusters of rock art within a particular landscape. It also provides a more dynamic appreciation of visibility by considering potential directions of approach and the point at which panels become evident, thus situating rock art within a web of movement and visual perception.

Intervisibility and reverse viewsheds were calculated in QGIS using a 5m Digital Terrain Model and the Visibility Analysis plugin (Čučković 2016). Five distance intervals were applied in both studies: 0–50m, 50–100m, 100–500m, 500m–1km, and >1km from the panel (Higuchi 1983). At the smallest interval (within 50m) an observer can potentially distinguish the panel, and possibly the motifs, whereas the greatest interval (>1km) is beyond the range of easy identification of the panel or its location in the landscape. Using different ranges allowed us to explore how perception changes with distance. Although visual perception is affected by light, weather and vegetation (and eyesight), these intervals enabled us to investigate the concept of visual decay in human perception (Valdez-Tullett 2019: 129).

One of the main outcomes of this study was the variation in visibility patterns identified between the case study areas. Some areas did not show any particular trends whereas others had far more targeted and focused visual characteristics. The intervisibility analysis demonstrated that, at most, only pairs or small clusters of panels were visually connected, regardless of distance. This suggests that intervisibility may not have been significant, either in the choice of location for prehistoric rock art in Scotland or in how rock art was encountered, and supports similar conclusions from previous studies in Dumfries and Galloway (Valdez-Tullett 2019), Kilmartin (Jones *et al.* 2011), and Northumberland (Fairén-Jiménez 2007).

The reverse viewshed analysis was more illuminating. This indicated that most panels become visible only when approached from specific directions or places in the landscape, and many were not evident until 100m or closer. The effect of the terrain is particularly marked in rugged and hilly regions like Loch Tay, but also apparent in more undulating landscapes, such as Port of Menteith. Visibility also varies with distance. For example, at closer distances the elaborately carved panels at Ormaig near Kilmartin are more visible from inland rather than coastal locations but become evident from the sea when approached from further away (>1km) (Figures 5 and 6). The analysis also demonstrated that panels are best observed from hillsides leading into valleys, often becoming more perceptible when looking down the slope. While this may be simply a reflection of the low-lying outcrops and gradient of the land, we can speculate on how this effect may have been employed. For instance, at Carnasserie at the north end of Kilmartin Glen, a sequence of panels leads down the hillside. Apart from

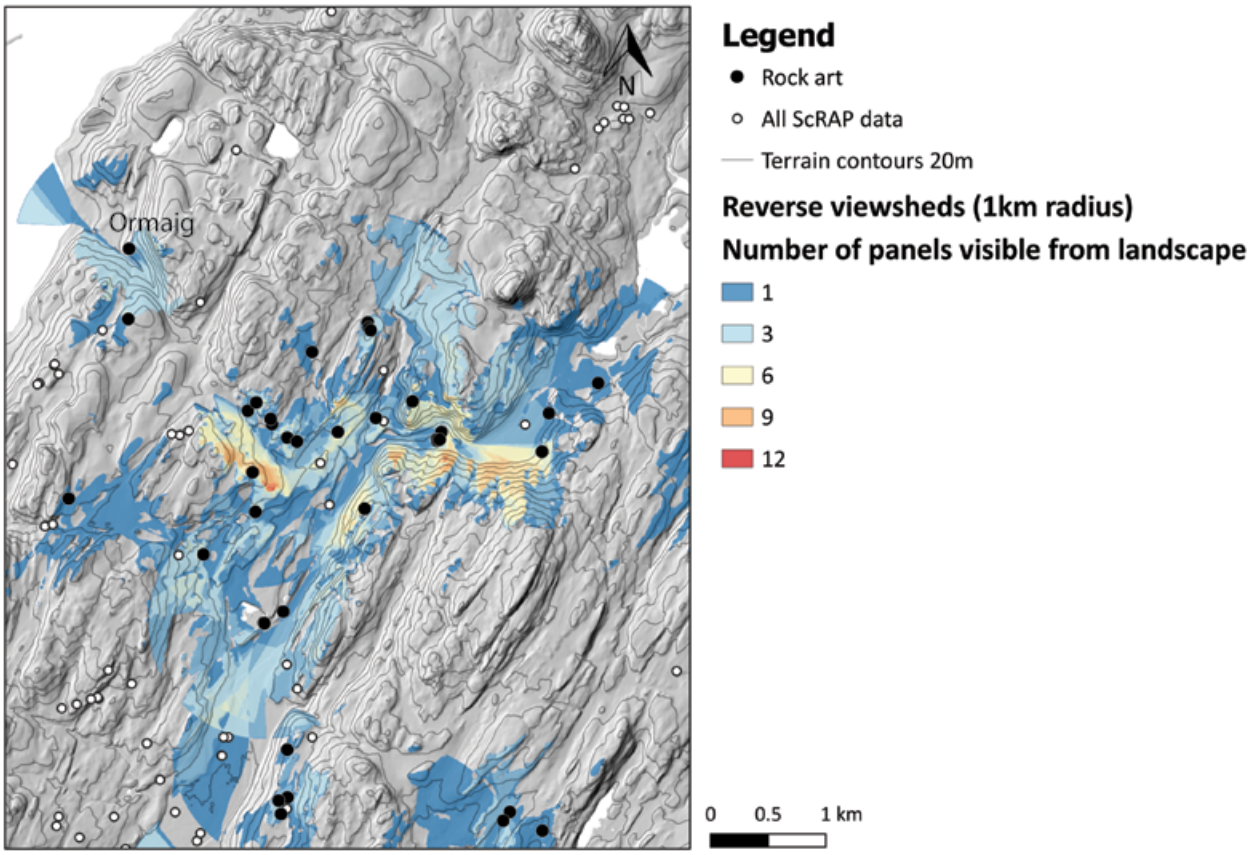

Figure 5. Reverse viewshed simulation of views from 1km away towards panels in north Kilmartin, showing that sloping hillsides are the best places to observe the rock art.

Figure 6. The location of elaborately carved panels at Ormaig, Kilmartin, is visible from at least 1km away when approaching from the sea, but only visible from the land at closer range when approaching from the north-northeast and south-southeast. Photo: Karen McCurry.

the uppermost panel, all are relatively flush with the ground, partly obscured by turf and vegetation, and have limited visual prominence in the landscape. The panels also become larger and more intensively carved as one travels down the slope. Way-markers are intuitively more useful when moving uphill as our cone of vision is relatively limited looking upslope but in this instance, consecutive panels become visible when approaching from above and moving downhill. If visibility was significant in shaping direction of movement, then these panels could provide a visual 'corridor' leading inland from the coast and the Ormaig carvings, into the northern end of Kilmartin Glen. This is an isolated example, and further detailed study of individual groupings across Scotland is needed to determine whether there is a pattern in the interplay of visual corridors and directional movement.

Physical encounters

The importance of considering movement in the study of prehistoric societies has long been acknowledged (e.g., Whittle 1997), and has been explored typically through GIS simulation of least cost paths and networks (e.g., Harris 2000). Our mobility analysis investigated the relationship between rock art and movement through the landscape in prehistory. The idea that rock art dominates important routeways and significant places along them rests on the assertion that panels were positioned where people were likely to pass (Bradley 1997). To test this supposition, we explored the spatial proximity of panels to computer-generated pathways, and assessed whether a consistent pattern existed across all our case study areas.

In order to create a network of paths indicating the travel probability of the landscape in each case study area, we applied a From-Everywhere-to-Everywhere (FETE) approach in the statistical software R with the 'leastcostpath' package (Lewis 2021; White and Barber 2012). This only focused on terrestrial travel due to the methodological complexities associated with modelling movement through water (e.g., Blankshein 2021; Verhagen *et al.* 2019). We are aware that this introduces a bias since lakes, rivers and sea may have facilitated travel in prehistory, and sea-level changes have altered the coastline in certain case study areas (notably Bute, Tiree, Kilmartin, Inverness and the Western Isles). Nevertheless, this study provides a foundation for further research, which should ideally combine terrestrial and aquatic movement.

Our analysis revealed an inconsistent relationship between randomly generated pathways and the position of rock art panels across Scotland. To establish the veracity of these findings, we tested their significance against results obtained from 1000 random points and repeated this procedure 10 times. The significance testing produced a similar pattern, again showing variation across the case study areas. In seven areas (Cairnholy and Kirkcudbright in Dumfries and Galloway, Bute, Tiree, Inverness South, Kilmartin North, and Kilmartin South), the rock art is positioned randomly, rather than consistently in places where people are most likely to pass. In two case studies (Machars and Strath Tay) panels are located well away from pathways. It is only in North Loch Tay and South Loch Tay that panels appear to be significantly associated with areas of mobility. The remaining case study areas (Faifley, Inverness North, Mid Loch Tay and Port of Menteith) fall somewhere in between and lack marked significance.

We also explored mobility from the perspective of Agent-Based Modelling (ABM) with the software NetLogo (Wilensky 1999). ABM allows us to understand how patterns arise through the 'actions and interactions of individual agents' (Romanowska *et al.* 2021: 7). The model offered a more dynamic insight into mobility by mimicking human behaviour and decision-making when choosing the best route through a landscape in relation to various factors that influence the formation of path networks. Given the time constraints on the project, we restricted the technique to one pilot case study area, Kilmartin, selected because of its size, volume of rock art (92 fixed panels), and potential for extending the modelling to include other types of prehistoric monument. We used 16 random points to generate pathways and ran multiple simulations. We also experimented with the parameters, including optimisation mode (how the agent chooses a path), visibility threshold (how obstructed the agent's vision is in mountainous areas), and 'fitness' of the agent. In order to test whether rock art followed a different or similar pattern to other prehistoric features, we compared the results generated for rock art with those for contemporary burial monuments and standing stones. We also investigated the relationship between simulated pathways and 1000 random points.

Our results showed that Kilmartin rock art is randomly distributed and has no significant relationship with areas of predicted high mobility. Conversely, funerary monuments were clearly associated with pathways through the landscape (Figure 7). Standing stones similarly showed a clear relationship with pathways, although this was less significant than for funerary monuments (Figure 8). Testing these results against randomly generated points confirmed our observations that rock art has a random distribution in relation to mobility networks in Kilmartin, whereas funerary monuments and standing stones do not.

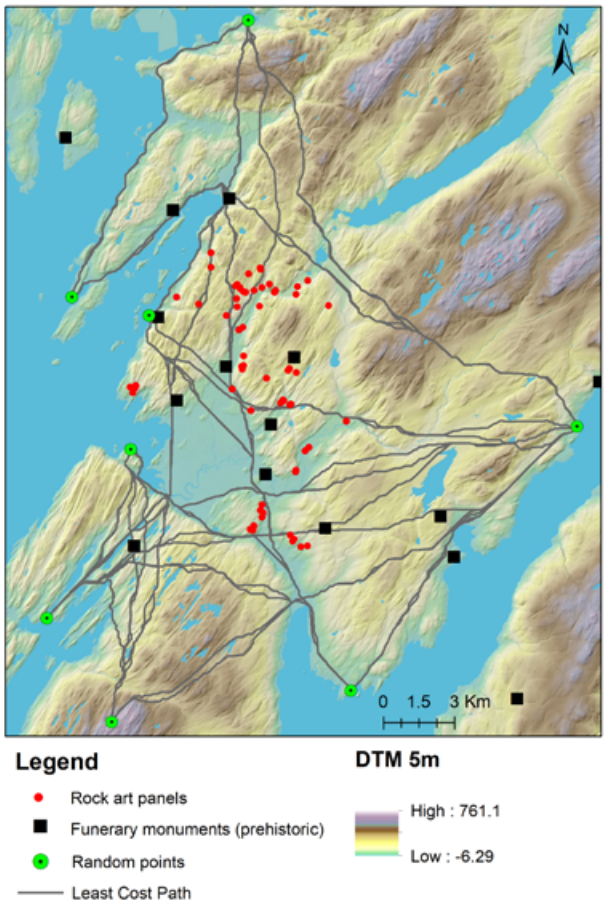

Figure 7. 'Least cost paths' around Kilmartin in relation to rock art and contemporaneous funerary monuments. Rock art is generally situated away from probable routes through the landscape whereas funerary monuments tend to be in close proximity.

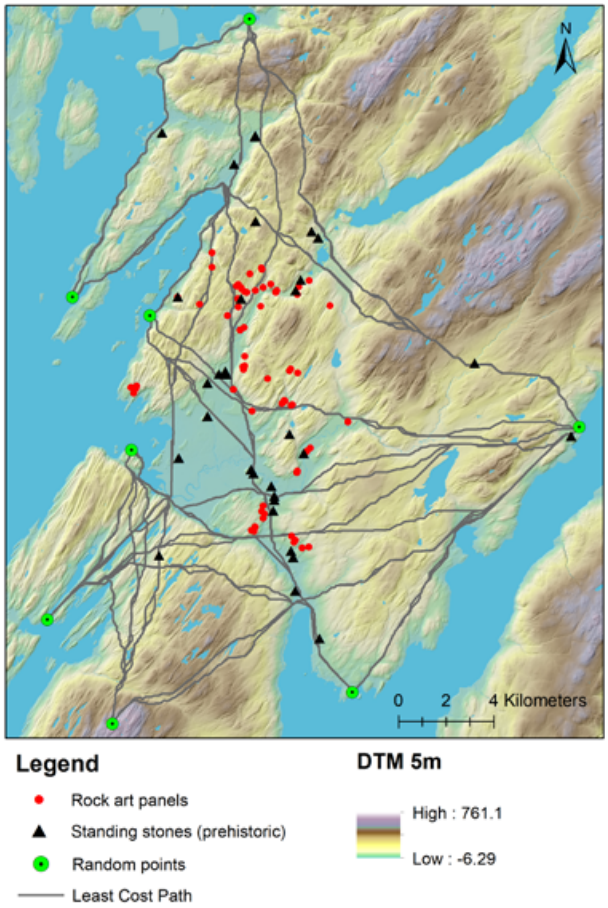

Figure 8. 'Least cost paths' around Kilmartin in relation to rock art and prehistoric standing stones. Standing stones demonstrate a closer spatial relationship to probable routeways compared to rock art.

In sum, the different approaches to mobility analysis in Kilmartin produced similar results. There are slight changes in paths depending on whether the model was constructed choosing the shortest route, the quickest route, or exploration, which may be due to the nature of the terrain. The clear variances in all outputs between rock art, funerary monuments and standing stones could potentially relate to different modes of perception. The differing popularity of these monuments in relation to the simulated mobility network may reflect a specific structuring of the landscape. Funerary monuments were perhaps intended to be encountered more frequently, whereas rock art may have been deliberately 'hidden' by placing it away from obvious routeways.

The wider landscape

There are other landscape attributes that impact on how rock art is encountered. Elevation, slope and aspect, for instance, have long been considered relevant in the placement of rock art, and have implications for its accessibility and visibility (e.g., Bradley *et al.* 1993; Fairén-Jiménez 2007). Previous studies show that panels in Britain are generally situated at medium elevations above valley floors and below hill tops where they are visible from specific directions and relatively accessible (e.g., Bradley 1991, 1997; Fairén-Jiménez 2007; Gaffney *et al.* 1995). Our study confirmed this trend for rock art across Scotland. Panels are predominately located at mid-slope level in all case study areas, although slope altitude varies in line with the local geomorphology, ranging from 0–100m asl in coastal regions to 150–300m asl in more mountainous areas. Significance testing clearly demonstrated panel elevation to be a deliberate choice rather than a reflection of the landscape character.

Aspect and slope of the terrain were analysed from elevation data in GIS for each case study area. The incline of the land was classified according to five intervals of slope following Butzer (1982) (see also Fairén-Jiménez 2004; Valdez-Tullett 2019). Degree of slope has a bearing on potential for human activities in the landscape surrounding rock art. For instance, arable farming areas are typically located on land inclined between 0% and 12%, whereas slopes greater than 20% are more appropriate for grazing and forestry activities (Butzer 1982). Steepness would also impact

on mobility, accessibility to panels and potential for collective activities around them (Valdez-Tullett 2019). Results varied across Scotland, but the majority of assessed panels are easily accessible on gentle slopes ranging between 5% and 15% of incline. Testing with the K-S method showed this to be significant for most case study areas.

There is also an overwhelming preference for slopes facing south, with slight variations towards the south-east or south-west, but rarely to the north (Figure 9). Conversely, there is no clear pattern in the orientation of the carved panel surfaces, suggesting that the aspect of the land, rather than the rock surface, was important in determining the location of the carvings. Southwards-facing slopes may have been selected because they are preferred for settlement and subsistence activities, particularly in Scotland where winter sunlight and warmth are important concerns. Slope orientation can also privilege visibility by affecting the quality and direction of sunlight on the motifs (e.g., Fairén-Jiménez 2004; Jones 2012; Valdez-Tullett 2019). Carvings on relatively flat, low-lying outcrops are difficult to see clearly without special lighting conditions but are dramatically enhanced by early morning and late evening light (Figure 10). Placing the carvings on south-east to south-west facing slopes harnesses the effect of oblique sunlight, especially during winter months when north-facing slopes remain constantly in shadow. Jones (2012) suggests that natural light was deliberately manipulated in order to animate carvings during their creation. The same lighting effects would have affected visibility and perception long after the rock art was made, as it does today, raising questions about whether the motifs, or motifs on particular panels, were intended to be encountered at certain times of day or year, and whether this aligned with other seasonal practices or beliefs.

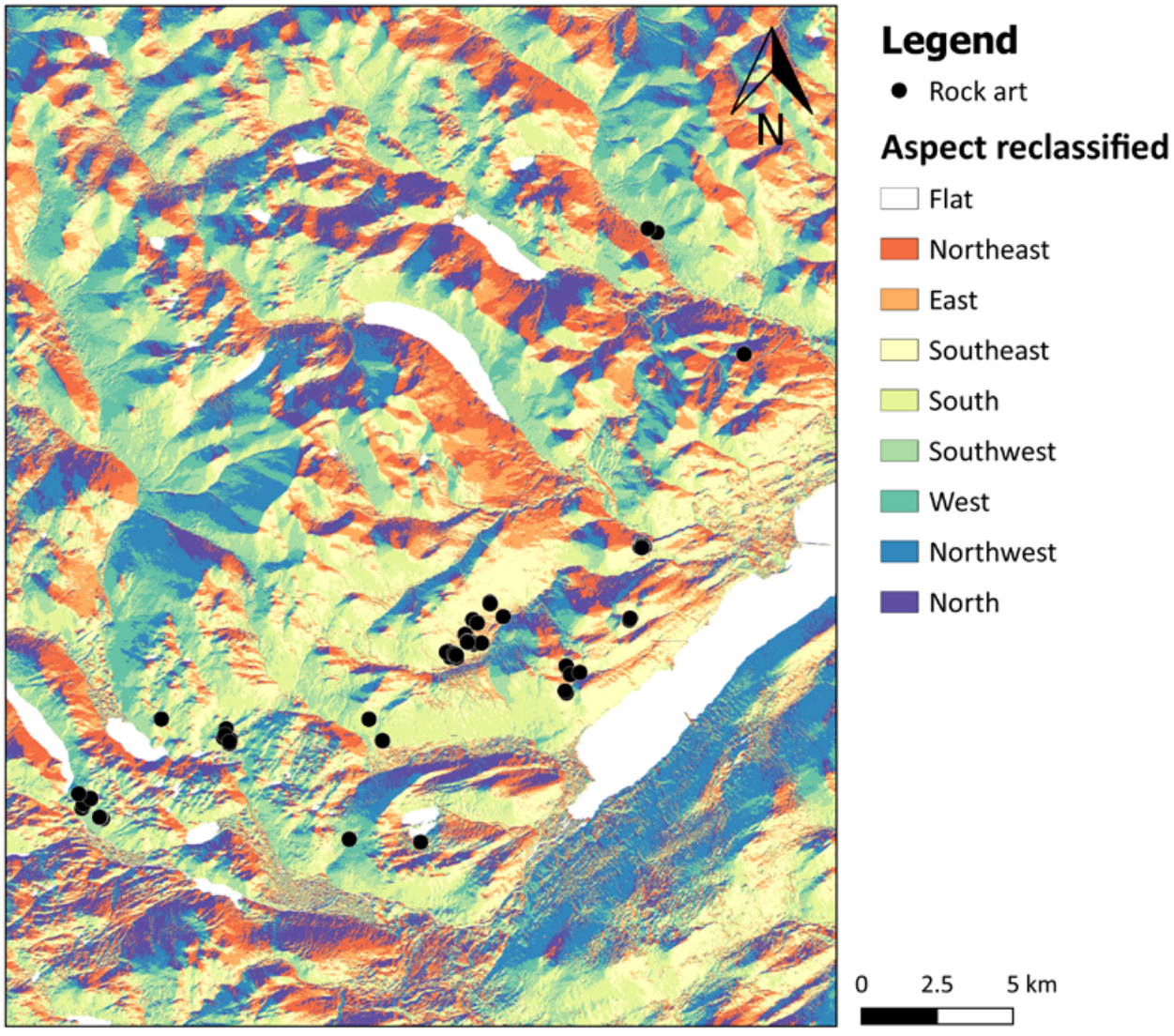

Figure 9. Rock art in relation to slope orientation in the Inverness north case study area.

Figure 10. A carved motif at Cloanlawers, Loch Tay, Perthshire, is dramatically enhanced by particular lighting and weather conditions. Photo: ScRAP © HES.

Conclusion

For several decades, Stan Beckensall has been a keen advocate of landscape approaches to rock art (Beckensall 1999, 2001, 2005, 2009). In his volume on Kilmartin rock art, for example, he proposes a series of questions and approaches for enriching our understanding of the relationship between rock art and its surroundings (Beckensall 2005: 125–126). Many of these have been investigated for Scotland's rock art during ScRAP. In this article we have focused on two aspects of our contextual analysis—the study of visibility and mobility—in order to re-visit aspects of the experienced rock art landscape, and to consider how people encountered the panels in prehistory.

Our study shows how the unchanging physical characteristics of the panel and local terrain affect visibility at different distances. Most rock art appears to be hidden by the topography until viewed from relatively close-by, and specific directions of approach were frequently favoured. Panels tend to be located in relatively accessible areas where movement is not affected by the slope of the terrain and where people could gather. They inhabit places most likely to be associated with human activity, forming an integral part of the everyday, lived-in landscapes. Yet, in many parts of Scotland, panels are situated away from obvious routes through the terrain, suggesting they were unlikely to be encountered through normal patterns of movement.

These results support the view that, for most rock art, the act and memory of making carvings were privileged over recurrent access (Jones 2012; Jones *et al.* 2011). While knowledge of their location may have been preserved within the community after their creation, the carvings themselves would have faded into the landscape and were possibly encountered only irregularly or by chance. The juxtaposition of concealed rock art within landscapes of activity may have enhanced the impact of these engagements. The experience of encountering rock art would have been further augmented by the interplay of natural phenomena with the carved rock surface, and the orientation of the land may have been harnessed to deliberately exploit these effects.

Visibility has been linked to the transformative potential of monuments and is considered to differentiate places of commemoration from places of change (e.g., Sommer 2017: 57). Sommer draws a distinction, for example, between the locations of highly visible monuments, such passage tombs, designed as permanent memorials, and other monuments, such as portal dolmens, occupying hidden places and intended for closure after fulfilling their function. From this perspective, 'hidden'

rock art could be viewed as an agent of change with the ability to facilitate transformation.

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We would like to thank the Arts and Humanities Research Council for funding Scotland's Rock Art Project, and to Historic Environment Scotland for hosting it. We are grateful to our Co-Investigators, Dr Guillaume Robin from Edinburgh University and Professor Stuart Jeffrey from Glasgow School of Art, our Digital Archivist, Frederick Alexander, and our project partners, Kilmartin Museum, Archaeology Scotland and North of Scotland Archaeological Society. We are indebted to our community team members for their dedication and enthusiasm, and to all those who contributed to ScRAP. Finally we would like to thank the editors of this volume for inviting us to write this chapter and, most importantly, to Stan Beckensall for his inspiration and legacy.

References

Alberti, G., 2017, Fuzzy Viewshed ArcGIS toolbox, viewed May-July 2021, <https://www.researchgate.net/publication/320490670_Fuzzy_Viewshed_ArcGIS_toolbox>

Barnett, T. 2010. Putting people in the picture: community involvement in rock art recording, in T. Barnett and K. Sharpe (eds) *Carving a Future for British Rock Art: New Directions for Research, Management and Presentation*: 25–36. Oxford: Oxbow Books.

Barnett, T., J. Valdez-Tullett, S. Jeffrey, G. Robin, M. Hoole, L.M. Bjerketvedt and F. Alexander, in press. The past, present and future of rock art research in Scotland, in A. Mazel and G. Nash (eds) *Signalling and Performance: Ancient Rock Art in Britain and Ireland*. Oxford: Archaeopress.

Beckensall, S. 1999. *British Prehistoric Rock Art*. Stroud: Tempus.

Beckensall, S. 2001. *Prehistoric Rock Art in Northumberland.* Stroud: Tempus.

Beckensall, S. 2005. *The Prehistoric Rock Art of Kilmartin*. Argyll: Kilmartin House Museum.

Beckensall, S. 2009. *Prehistoric Rock Art in Britain.* Stroud: Amberley Publishing Limited.

Bjerketvedt, L.M., J. Valdez-Tullett, T. Barnett, F. Alexander, M. Hoole, S. Jeffrey, G. Robin and A. McLean, forthcoming. Scratching the surface of Scotland's prehistoric rock art: a multi-scalar, holistic analysis of context and design.

Blankshein, S.L. 2021. (Sea)ways of Perception: an integrated maritime-terrestrial approach to modelling prehistoric seafaring. *Journal of Archaeological Method and Theory.* doi.org/10.1007/s10816-021-09536-4.

Bradley, R. 1991. Rock art and the perception of the landscape. *Cambridge Archaeological Journal* 1(1): 77–101.

Bradley, R. 1996. Learning from places – topographical analysis of northern British rock art. *Northern Archaeology* 13/14: 87–99.

Bradley, R. 1997. *Rock Art and the Prehistory of Atlantic Europe: Signing the land*. London and New York: Routledge.

Bradley, R., J. Harding, S. Rippon and M. Mathews. 1993. A field method for investigating the distribution of rock art. *Oxford Journal of Archaeology* 12(2): 129–143.

Bradley, R., F. Criado-Boado and R.F. Valcarce. 1994. Rock art research as landscape archaeology: A pilot study in Galicia, north-west Spain. *World Archaeology* 25: 374–390 doi.org/10.1080/00438243.1994.9980252.

Bradley, R. and R.F. Valcarce 1998. Crossing the border: contrasting styles of rock art in the prehistory of north-west Iberia. *Oxford Journal of Archaeology* 17(3): 287–308.

Butzer, K.W. 1982. *Archaeology as Human Ecology*. Cambridge: Cambridge University Press.

Čučković, Z. 2016 Advanced viewshed analysis: a Quantum GIS plug-in for the analysis of visual landscapes. *The Journal of Open Source Software* 4(1): doi:10.21105/joss.00032.

Enlander, R. 2013. Prehistoric Art and the Cultural Landscapes of North of Ireland: a Contextual and Interpretative Study. Unpublished PhD dissertation, Queen's University Belfast.

Fábrega-Álvarez, P. and C. Parcero-Oubiña. 2019. Now you see me. An assessment of the visual recognition and control of individuals in archaeological landscapes. *Journal of Archaeological Science* 104: 56–74.

Fairén-Jiménez, S. 2004. Arte Rupestre y Territorio. El paisaje de las primeras counidades productoras en las comarcas centro-meridionales Valencianas. Unpublished PhD dissertation, Universidade de Alicante.

Fairén-Jiménez, S. 2007. British Neolithic rock art in its landscape. *Journal of Field Archaeology* 32(3): 283–295.

Fisher, P.F. 1994. Probable and fuzzy models of the viewshed operation, in M.F. Worboys (ed.) *Innovation in GIS: Selected Papers from the First National Conference on GIS Research UK:* 161–175. London: Taylor & Francis.

Freedman, D. 2011. Kilmartin in context I: Kilmartin and the rock art of prehistoric Scotland, in A.M. Jones, D. Freedman, B. O'Connor and H. Lamdin-Whymark (eds) *An Animate Landscape: Rock Art and the Prehistory of Kilmartin*: 282–311. Oxford: Windgather Press.

Gaffney, V., Z. Stančič and H. Watson 1995. Moving from catchments to cognition: tentative steps towards a larger archaeological context for GIS. *Scottish Archaeological Review* 9/10: 41–64.

Gillings, M. 2015. Mapping invisibility: GIS approaches to the analysis of hiding and seclusion. *Journal of Archaeological Science* 62: 1–14.

Harris, T.M. 2000. Moving GIS: exploring movement within prehistoric cultural landscapes using GIS, in G. Lock and Z. Harris (eds) *Archaeology and Geographical Information Systems. A European Perspective:* 116–23. London: Taylor & Francis.

Higuchi, T. 1983. *Visual and Spatial Structure of Landscape*. Cambridge: MIT Press.

Johnston, S. 1991. Distributional aspects of prehistoric Irish petroglyphs, in P.G. Bahn (ed.) *Rock Art and Prehistory*: 257–259. Oxford: Oxbow Books.

Jones, A.M. 2012. Living rocks: animacy, performance and the rock art of the Kilmartin region, Argyll, Scotland, in A. Cochrane and A.M. Jones (eds) *Visualising the Neolithic: Abstraction, Figuration, Performance, Representation* (Neolithic Studies Group Seminar Papers 13): 79–88. Oxford and Oakville: Oxbow Books.

Jones, A.M., D. Freedman, B. O'Connor and H. Lamdin-Whymark. 2011. *An Animate Landscape: Rock Art and the Prehistory of Kilmartin*. Oxford: Windgather Press.

Lewis, J, 2021, *Leastcostpath: modelling pathways and movement potential within a landscape (Version 1.8.0). R package version 1.8.0*, viewed May-July 2021, <https://CRAN.R-project.org/package=leastcostpath>.

Mazel, A.D. 2005. Virtual access to the Beckensall Northumberland rock art archive. *International Newsletter on Rock Art* 42: 24–27.

O'Connor, B. 2006. Inscribed Landscapes: Contextualising Prehistoric Rock Art in Ireland. Unpublished PhD dissertation, University College Dublin.

Ogburn, D.E. 2006. Assessing the level of visibility of cultural objects in past landscapes. *Journal of Archaeological Science* 33(3): 405–413.

Purcell, A. 1994. Carved Landscapes: The Rock Art of the Iveragh Peninsula. Unpublished MA dissertation, University College Cork.

Purcell, A. 2002. The rock-art landscape of the Iveragh Peninsula, County Kerry, south-west Ireland, in G. Nash and C. Chippindale (eds) *European Landscapes of Rock Art:* 71–92. London and New York: Routledge.

Romanowska, I., C.D. Wren and S.A. Crabtree. 2021. *Agent-Based Modeling for Archaeology: Simulating the Complexity of Societies.* Santa Fe: Santa Fe Institute Press.

Sharpe, K.E. 2012. Reading between the grooves: Regional variations in the style and deployment of 'cup and ring' marked stones, in A. Cochrane and A.M. Jones (eds) *Visualising the Neolithic: Abstraction, Figuration, Performance, Representation* (Neolithic Studies Group Seminar Papers 13): 47–63. Oxford and Oakville: Oxbow Books.

Sommer, U. 2017. The appropriation or the destruction of memory? Bell Beaker 're-use' of older sites, in K.P. Hofmann, R. Bernbeck and U.Sommer (eds) *Between Memory Sites and Memory Networks. New Archaeological and Historical Perspectives* (Berlin Studies of the Ancient World 45): 33–70. Berlin: Edition Topoi.

Valdez-Tullett, J. 2019. *Design and Connectivity: The Case of Atlantic Rock Art* (British Archaeological Reports International Series 2932). Oxford: BAR Publishing.

Valdez-Tullett, J., T. Barnett, L.M. Bjerketvedt, F. Alexander, S. Jeffrey, M. Hoole and G. Robin, forthcoming. Characterising Scotland's rock art.

Verhagen P., L. Nuninger and M.R. Groenhuijzen. 2019. Modelling of pathways and movement networks in archaeology: an overview of current approaches, in P. Verhagen, J. Joyce and M. Groenhuijzen (eds) *Finding the Limits of the Limes. Modelling Demography, Economy and Transport on the Edge of the Roman Empire:* 217–249. Cham: Springer.

Waddington, C. 1996. Putting rock art to use: a model of early Neolithic transhumance in North Northumberland. *Northern Archaeology* 13/14: 147–77.

Waddington, C. 1998. Cup and ring marks in context. *Cambridge Archaeological Journal* 1: 29–54.

Wheatley, D. and M. Gillings. 2000. Vision, perception and GIS: developing enriched approaches to the study of archaeological visibility, in G. Lock (ed.) *Beyond the Map. Archaeology and Spatial Technologies:* 1–27. Amsterdam: IOS Press.

Wheatley, D. and M. Gillings. 2002. *Spatial Technology and Archaeology: The Archaeological Applications of GIS*. London: Taylor and Francis.

White, D.A. and S.B. Barber. 2012. Geospatial modeling of pedestrian transportation networks: a case study from precolumbian Oaxaca, Mexico. *Journal of Archaeological Science* 39(8): 2684–2696.

Whittle, A. 1997. Moving on and moving around: Neolithic settlement mobility, in P. Topping (ed.) *Neolithic Landscapes:* 15–22. Oxford: Oxbow Books.

Wilensky, U, 1999, *NetLogo.* Center for Connected Learning and Computer-Based Modeling. Northwestern University, Evanston, IL, viewed May-July 2021 <http://ccl.northwestern.edu/netlogo/>.

Winterbottom, S.J. and D. Long. 2006. From abstract digital models to rich virtual environments: landscape contexts in Kilmartin Glen, Scotland. *Journal of Archaeological Science* 33(10): 1356–3567.

6

Experiencing Achnabreck: a rock art site in Kilmartin Glen, Scotland

Aaron Watson

My first encounter with prehistoric rock art was in the early 1990s. As an archaeology student at the University of Reading, I volunteered to participate in a field survey to investigate the relationship between cup-and-ring markings and the Northumberland landscape (Bradley *et al.* 1993). This was also the first time I encountered Stan Beckensall, who supported the project with his legendary energy and enthusiasm. There could not have been a more inspiring introduction to the wonders and enigmas of prehistoric rock art, which has since become a focus of my own research.

This chapter is about Achnabreck, an exceptional rock art site set within a rich archaeological landscape that has long been a focus for Stan's exploration and writing; Kilmartin Glen on the west coast of Scotland (Figure 1). I will present new evidence for unrecorded carvings and suggest that the unique array of symbols it displays reflect changing ideas and practices across Neolithic Britain and Ireland between 3300 and 2900 BC.

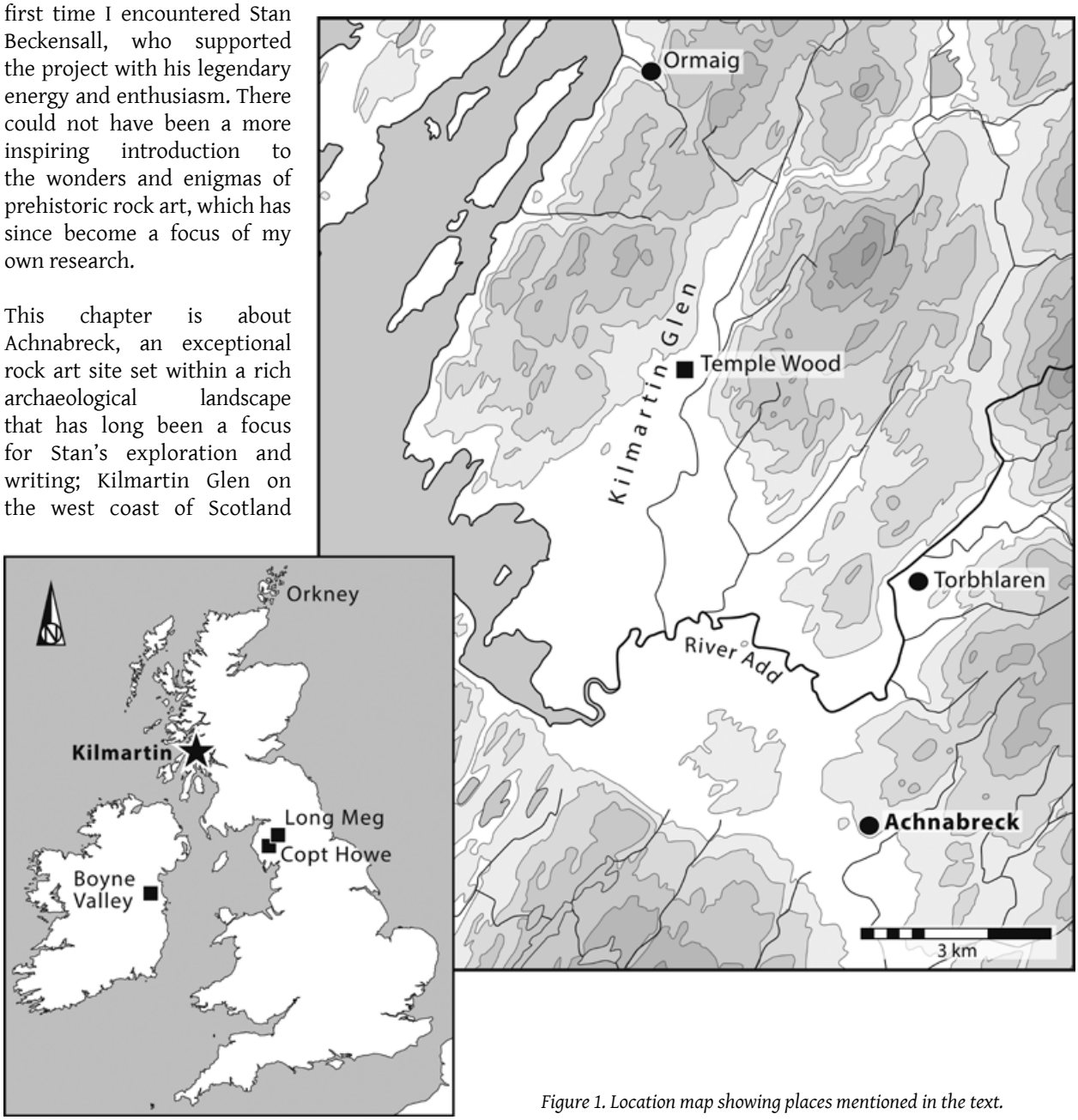

Figure 1. Location map showing places mentioned in the text.

Introducing Achnabreck

I first visited Achnabreck over twenty years ago and was stunned by its scale and complexity (Figure 2). Rock carvings extend across several discrete outcrops, and here I will focus upon the largest, Achnabreck 1 (RCAHMS 1988; 1999). This glacially shaped dome of epidiorite displays one of the most extensive groups of open-air prehistoric carvings anywhere in Britain and Ireland. It features the single largest motif in Scotland *and* the most concentric rings around a cup mark (Morris 1971). Although it is known as Achnabreac in Gaelic, I will use the anglicised spelling to maintain consistency with prior publications. Achnabreck is allied to a complex of Neolithic and Bronze Age monuments centred upon Kilmartin Glen in Mid Argyll, including a timber cursus, chambered cairns, stone circles, and a Bronze Age linear cemetery. The area is one of western Europe's principal rock art landscapes (Beckensall 2005; Sheridan 2012).

Most of the carvings at Achnabreck are cup-and-ring markings, which are part of a wider phenomenon that extends along the Atlantic coast of Europe (Bradley 1997; 2020; Valdez-Tullett 2019). The Upper North Panel also displays symbols that are rare in open-air rock art. A double horned spiral was illustrated over a century ago (Allen 1903), and surveys in the 1970s and 1980s revealed further examples alongside concentric rings without central cup marks (Morris 1971; RCAHMS 1988; 1999). Both motifs are unusual in the landscape and are sometimes described as 'megalithic art' because of their association with monuments. Rings occur at passage tombs in Ireland, including Newgrange and Knowth (Eogan and Cleary 2017; O'Kelly 1982). Horned spirals rarely occur in Ireland and have their best parallels at the passage tombs of Eday Manse and Pierowall Quarry in Orkney (Davidson and Henshall 1989; Sharples 1984; Thomas 2016).

It has long been suggested that the megalithic art at Achnabreck was superseded by the Atlantic cup-and-ring tradition (Beckensall 2005; Frodsham 1996: 115; RCAHMS 1988; 1999). The ephemeral character of the rings and horned spirals could indicate that they have weathered for longer than the cup-and-ring motifs, although Stan has noted that an outlying double horned spiral is just as well-defined as the cups and rings (Beckensall 1999: 106). Unless this motif was differentially exposed to the elements or reworked, the sequence might be more complicated. A closer examination was required to clarify the relationships between the carvings.

Analysing Achnabreck

I used photogrammetry to record fine details on the rock surface. A handheld 24-megapixel camera captured a mosaic of photographs which were

Figure 2. The Achnabreck 1 outcrop, showing its domed profile. Carvings on the Upper North Panel are visible in the foreground. Photo: Aaron Watson/Kilmartin Museum.

processed using an established methodology (Gil-Docampo *et al.* 2020). Point clouds and polygons were generated using Agisoft Metashape. The resulting three-dimensional digital models were viewed using MeshLab (Cignoni *et al.* 2008) and enhanced by applying digital lighting, textures, and shaders (Vergne 2010). This pilot study revealed a series of unrecorded arcs and circles, and I was able to ground-truth several partial motifs by illuminating them using artificial light (Figure 3). Some of the most ephemeral appear to truncate one another; further surveys are required to unpick this sequence. The results contribute to our understanding of Achnabreck in three ways. First, they reinforce the presence of a cluster of unusual motifs on the Upper North Panel. Second, the appearance and design of these motifs contrast markedly with the cup-and-ring markings on the same panel, which are deeply carved and coherently organised by comparison. Finally, the discoveries emphasise that the cup-and-ring marks cut across some of the fainter markings, supporting the idea that there are at least two distinct episodes of carving at Achnabreck. Evidence for superimposition is highly unusual in open-air rock art, where motifs are ordinarily juxtaposed or conjoined in ways that respect one another (Cochrane *et al.* 2015: 5; Jones and Díaz-Guardamino 2019: 169–70; Valdez-Tullett 2019;). How might this unique palimpsest of motifs be understood?

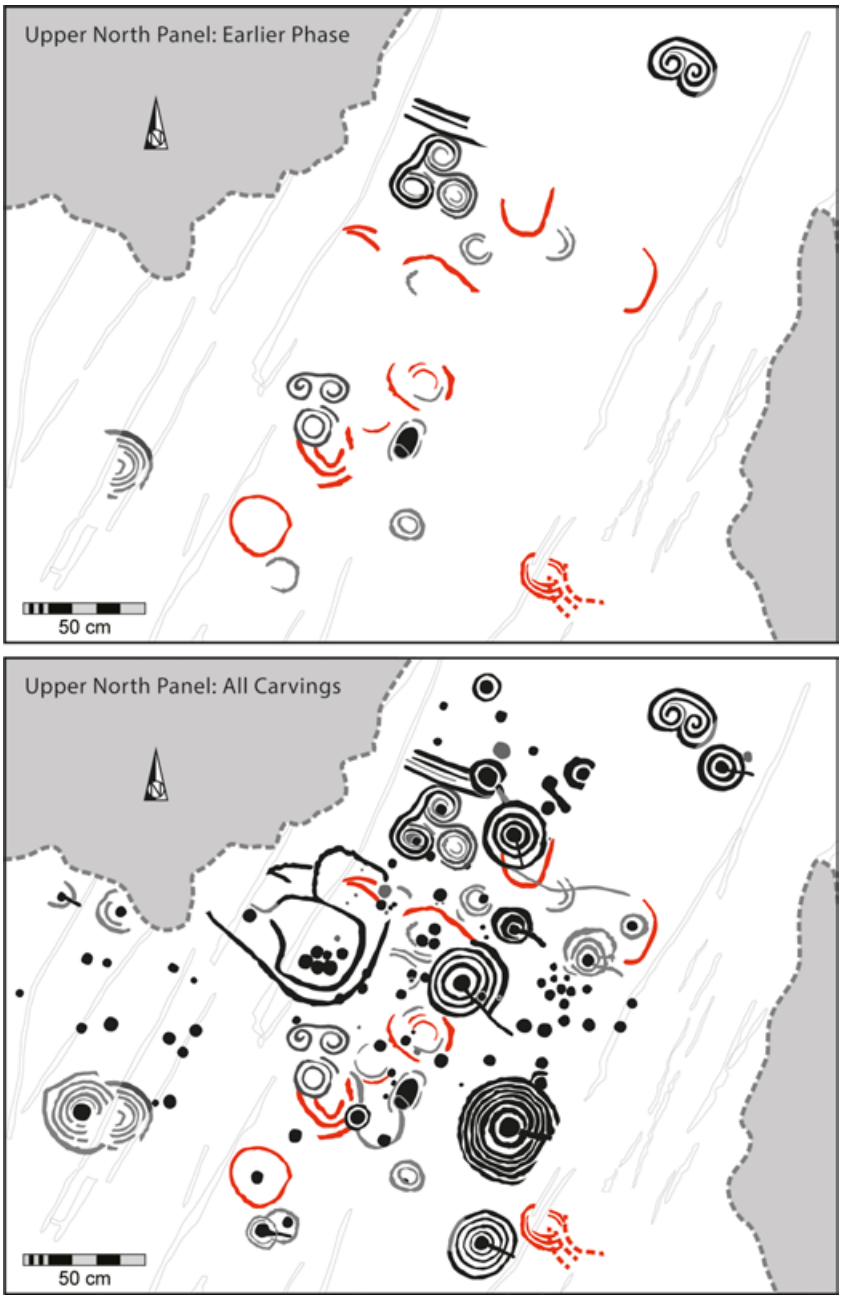

Figure 3. The suggested earlier and later phases on the Upper North Panel at Achnabreck 1. Motifs recorded by photogrammetry, and confirmed using oblique light, are indicated in red.

Analogies with Achnabreck

While rare in the open air, superimposition is a hallmark of megalithic art at Newgrange, Knowth and Dowth in the Boyne Valley (Eogan and Cleary 2017; Jones 2004; O'Kelly 1982). Many curvilinear designs within these tombs were created using fine pecked lines characterised as the 'depictive' style. Rather like the images on the Upper North Panel at Achnabreck, these markings appear sketchy and display seemingly haphazard relationships to one another. They were sometimes cut across by carvings made in the 'plastic' style, which includes bolder designs with a more sculptural finish (O'Sullivan 1986). A different technique was required to produce the deeper carvings, reminiscent of how cup-and-ring marks in the landscape were made (Bradley 1997: 63). Could the contrasting styles on Achnabreck's Upper North Panel be an echo of practices in the Boyne Valley? The parallel is not exact. The rings and arcs on the Upper North Panel represent only a subset of the variety of depictive designs, and horned spirals point to references outside of Ireland. On the other hand, superimposition within the Boyne Valley tombs offers a parallel for Achnabreck (Jones *et al.* 2011: 31–32). It

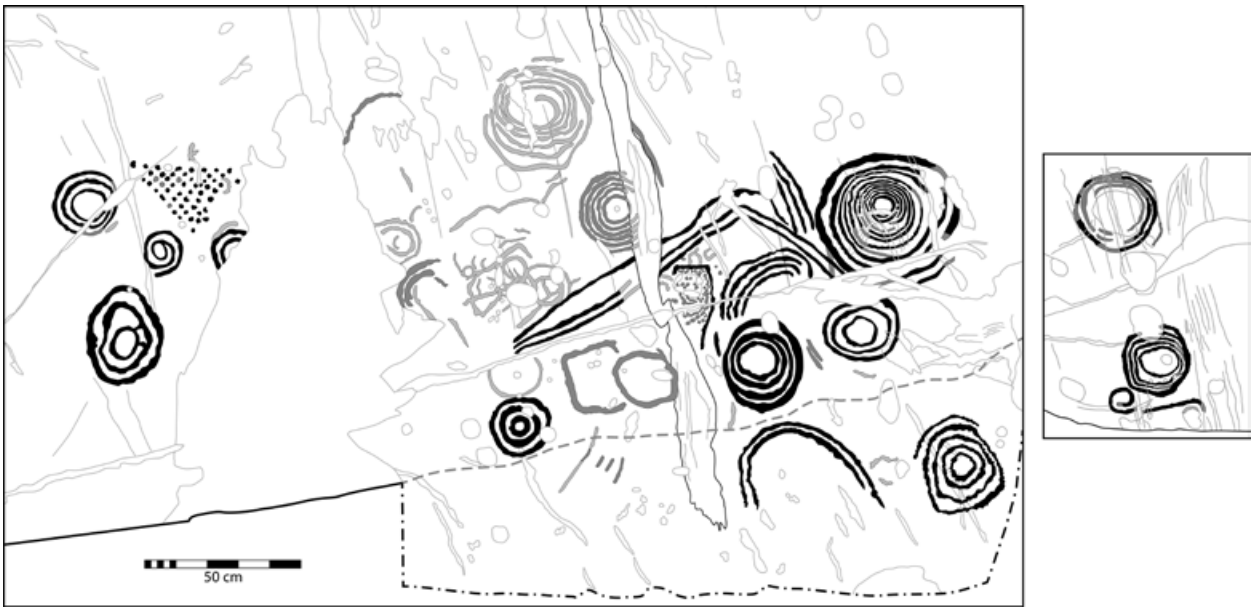

Figure 4. The principal carvings at Copt Howe.

might even help date the megalithic art on the Upper North Panel, since the zenith of passage tomb art was between 3300 and 2900 BC (Eogan and Cleary 2017; O'Kelly 1982).

Finding architecture at Achnabreck

In 2018, I helped excavate a rock art site in north-west England that also displays affinities with megalithic art. Copt Howe is a glacial formation of enormous boulders set into a glacial mound. One of the largest displays a frieze of carvings, including rings, arcs, spirals, and a triangle. Like the Upper North Panel, these carvings were pecked using a shallow technique to produce a sketchy, irregular appearance reminiscent of the depictive style (Figure 4). The creation of Copt Howe's carvings must have referenced the construction and use of Newgrange and Knowth in the centuries around 3000 BC (Sharpe and Watson 2010: 59–60; Bradley *et al.* 2019: 187).

Copt Howe might have been embellished with megalithic art because it resembles passage tombs. The two largest boulders flank a natural passageway, and observers facing the main panel of carvings can witness the midsummer sunset framed by this portal. Today, we attribute the formation of Copt Howe to geological processes, but this division between nature and culture would not have been shared by people in prehistory. Instead, we might describe this place as *found* architecture (Bradley and Watson 2019; Sharpe 2007).

Approached from every direction except the north, Achnabreck 1's domed outcrop resembles a large oval mound or cairn (Figure 5). The exposure has a south-west trending axis, reinforced by prominent linear cracks, and is aligned upon the winter solstice sunset. Like Copt Howe, Achnabreck 1 has natural origins, but it is imbued with monumental qualities. Was it embellished with megalithic art because these natural features evoked the properties of a passage tomb?

The sloping sides of Achnabreck's outcrop reproduce the spatial thresholds which divide 'public' and 'private' domains in prehistoric architecture (Bradley 1997: 108; Thomas 1990). Indeed, the most unusual motifs can only be viewed by those who venture onto the top of the outcrop. The rings, arcs and horned spirals are restricted to the highest surface and are concealed from lower ground. While it is unusual for megalithic art to be applied to a horizontal surface, could this focus upon a liminal panel have echoed the separation effected by built chambers? We may never know for certain, but the cup-and-ring markings extended widely, and those which embellish the South Panel are displayed to best effect by viewers at the periphery of the outcrop. From this perspective, anyone standing upon the top of the rock is silhouetted against the sky.

This pattern extends to an extraordinary group of designs on the Middle Panel, including some of the largest motifs anywhere in Britain and Ireland (RCAHMS 1999: 46–47). Widely spaced rings emerge from fine parallel cracks that, combined with radial grooves, create an illusion of tunnels descending through the rock's surface. This might not have been their only meaning, but similar connotations have been suggested for the symbolism of rings and spirals at Irish passage tombs (Dronfield 1996). Richard Bradley has noted that the design of circular motifs changes according to their context. Concentric circles applied to natural boulders or outcrops that have no means of access to their interiors (in direct contrast to passage tombs) were supplemented with one or more

Figure 5. Two views of Achnabreck 1 from the east (top) and south show how the outcrop emerges steeply from the landscape. Photos: Aaron Watson/Kilmartin Museum.

radial lines suggestive of pathways leading through the rock's surface (Bradley 1997: 55, 2020: 26). The interior of Achnabreck 1 was never physically accessible like a chambered cairn, but these exaggerated markings might signal that people in prehistory *believed* the stone to be permeable (Lewis-Williams and Dowson 1990).

Achnabreck, Temple Wood and the wider Neolithic world

Eight kilometres from Achnabreck is Temple Wood, a complex multiphase site that played a pivotal role in the development of the Kilmartin landscape. The site began as a circle of posts, but these were replaced by standing stones and a second stone circle built nearby. Several monoliths survive today, and it is possible to discern carvings on two of them in strong light. Stone 11 displays a pair of concentric circles, and Stone 9 is embellished with a finely crafted composite horned spiral (Figure 6) that the site's excavator, Jack Scott, compared with symbols on the Knowth macehead, which had only recently been discovered (Scott 1989: 74–76). He noted that this macehead also shares a symbol with Achnabreck; the spirals on its sides connect with double rings around the haft-hole, closely mirroring a double horned spiral linked via an S-spiral to a double ring on the Upper North Panel (Scott 1989:

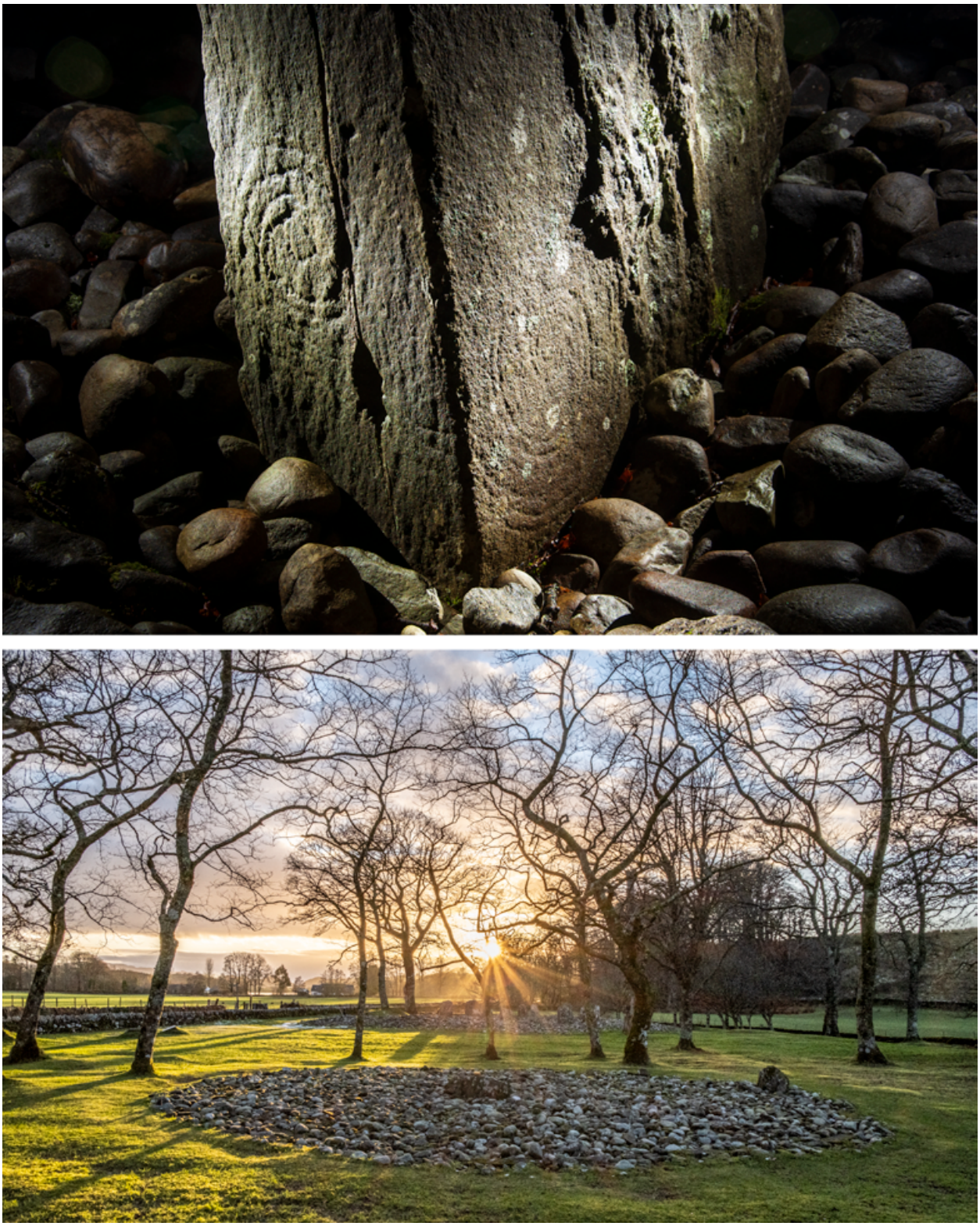

Figure 6. The Temple Wood stone circles. The finely carved triple spiral on the outer face of Stone 9, visible to the right, may have been extended in the Bronze Age (top). The midwinter sunset at Temple Wood, looking south-west along the axis between the northern circle in the foreground and the southern circle beyond. Photos: Aaron Watson/Kilmartin Museum.

77) (Figure 7). There is another similarity between the artefact and the outcrop. The macehead's 'face' displays a horned spiral that has been compared with the carvings at the Eday Manse and Pierowall Quarry passage tombs in Orkney (Frodsham 1996; Loveday *et al.* 2007: 389; Simpson 1996: 67). Yet it bears an even closer resemblance to the two outlying spirals linked by a C-shaped curve on Achnabreck's Upper North Panel

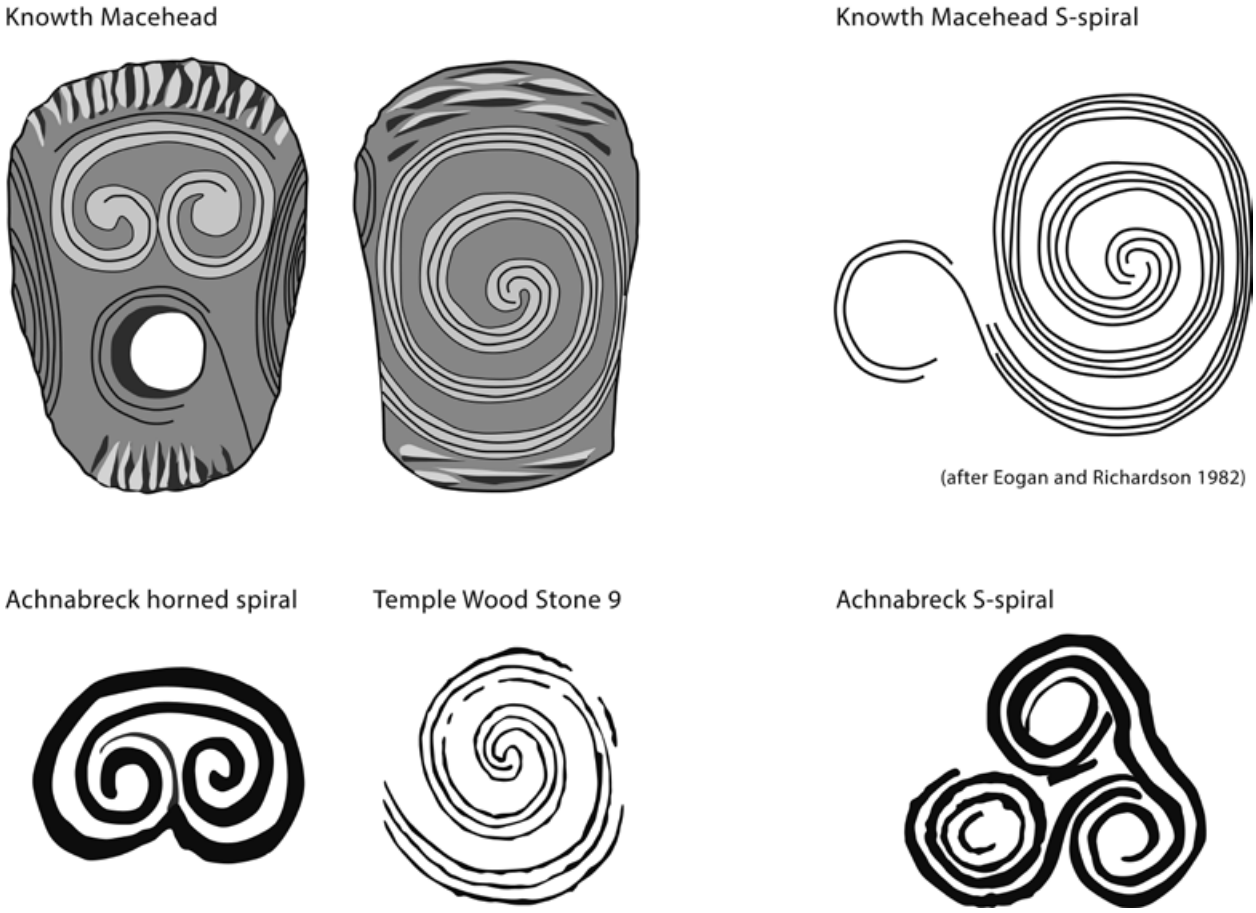

Figure 7. Similarities between spiral motifs at Achnabreck, Temple Wood and the Knowth macehead.

(Figure 7; Beckensall 1999: 106; Eogan and Richardson 1982: 135–136). These ideas must have been circulating by the end of the fourth millennium BC, since this extraordinary artefact became sealed within the largest passage tomb at Knowth before 3100 BC (Eogan and Cleary 2017: ch. 6).

The synergy between the Knowth macehead, Temple Wood and Achnabreck epitomises the emergence of shared practices of mark-making across large areas of Britain and Ireland (Jones and Díaz-Guardamino 2019). Scott noted this with reference to the carvings at Temple Wood. While they display affinities with Irish megalithic art, there are no passage tombs in the Kilmartin area – the Early Neolithic Clyde Cairns there belong to a quite different tradition. Indeed, no other standing monument in Scotland displays comparable designs, and Scott suggested the closest parallels were in north-west England (Scott 1989: 73–77). Copt Howe had not been discovered when Scott was writing, but Long Meg and her Daughters stone circle, the Little Meg kerb cairn and Old Parks feature megalithic art (Beckensall 2002). Mayburgh, also in the Vale of Eden, replicates the form of an Irish henge (Watson and Bradley 2009). Radiocarbon dating suggests that the construction of the stone circle at Long Meg and her Daughters took place in the closing centuries of the fourth millennium BC (Frodsham 2021). In the Later Neolithic, people in Cumbria and Kilmartin Glen were assimilating influential ideas from Ireland and Orkney, although they did not build passage tombs of their own (Bradley 2019: 123–124). Akin to Calanais and Machrie Moor, Temple Wood was built in the image of the archetypal Stones of Stenness in Orkney, placing its initial construction around 3000 BC (Griffiths and Richards 2013; Sheridan 2012). Grooved Ware pottery, a style that originated in Orkney around 3200 BC, was also adopted across Scotland and Ireland (Carlin 2017; Richards *et al.* 2016; Schulting *et al.* 2010; Sheridan 2004). The earliest evidence for Grooved Ware on the west coast of Scotland comes from Machrie Moor Site 1 on Arran around 3000 BC (Copper *et al.* 2018; 2019). In Kilmartin Glen, Grooved Ware found at Upper Largie can also be associated with this early wave of adoption (Copper *et al.* 2021: 96; Ellis 2017: 56).

Temple Wood fuses together different monument 'types'. It displays passage tomb art, and yet its architecture encompasses panoramic views of the landscape and the sky. The axis linking the centres of the two circles points towards the midwinter sunset (Scott 2010), a celestial alignment also shared by Long Meg and her Daughters, Maeshowe passage tomb in Orkney, and Achnabreck (Figure 6). Decorated kerbs were a

late development at the Boyne Valley passage tombs, and the perimeters of monuments in both regions were increasingly emphasised by the construction of stone settings and platforms. Perhaps Temple Wood reflected a wider process by which the meaning of the passage tomb was, quite literally, being turned 'inside out' (Bradley 1998: ch. 7; 2019: ch. 3). Indeed, the ongoing importance of its decorated perimeter is supported by Scott's suggestion that the spiral on Stone 9 was extended in the Bronze Age so that it remained visible when the standing stones were embedded in cairn material (Figure 6; Scott 1989: 77). Might these developments help explain why Copt Howe and Achnabreck followed different trajectories? Carving at Copt Howe may have ceased when a bank of rubble was built against the decorated surface. Megalithic art on Achnabreck's Upper North Panel was superseded by cup-and-ring markings that extended to the outcrop's margins.

Copt Howe's glacial boulders are most reminiscent of the *internal* architecture of a passage tomb; the carvings there were created exclusively on vertical faces just as they appear upon orthostats within the fabric of the monuments. There are wider parallels where megalithic art occurs upon steep cliffs such as Morwick Mill, Ballochmyle and Hawthornden (Bradley, this volume). These locations were not embellished with Atlantic-style imagery, and where cups with rings are present, they often lack the radial lines which characterise most of their counterparts in the open-air. Achnabreck 1 is very different. There are no sheer surfaces or other natural features suggestive of a passageway. Given that increasing significance was invested in the *external* appearance of chambered monuments into the later Neolithic, perhaps its likeness to a large circular mound or cairn became increasingly important. Something similar might have happened at Roughting Linn, the largest and most extensively carved rock in Northumberland, which also resembles a cairn with a decorated kerb (Bradley 1997: 105).

Around 3000 BC, it seems that the style of carving at Achnabreck became aligned with rock art sites that were being created across the wider Kilmartin landscape. Only 4km away, excavations at Torbhlaren produced dates placing the creation of cup-and-ring markings between 2920 and 2860 BC, and in at least two later episodes (Jones *et al.* 2011: 253). This site also produced remarkable evidence for how the rock carvings were made.

Experiencing Achnabreck

At Torbhlaren, cup-and-ring marks were predominantly pecked into the rock using quartz hammerstones. Experimental reproduction by Hugo Anderson-Whymark showed that quartz tends to fracture, coating the rock surface with sparkling crystal fragments (Jones *et al.* 2011: ch. 6). Quartz crystal also displays numinous qualities, emitting a glowing light when bashed or abraded (Reynolds 2009). Combined with the percussive sound produced by pecking, the act of making rock art must have been a dynamic and engaging multisensory performance (Jones *et al.* 2011: 196–199). The most prominent outcrop at Torbhlaren, Lion Rock, has a natural shelf that offers the optimum location to watch the carvings being made. At Tiger Rock nearby, compressed ground adjacent to the main panel of complex motifs may indicate where an audience was gathered (Jones *et al.* 2011: Appendix B). Some of the decorated surfaces might have been reminiscent of a stage in a theatre.

Ancient rock carvings might be set in stone, but their appearance responds to changes in the ambient environment and whether the stone is wet or dry. To appreciate this variability, it is essential to experience rock art through the seasons and at different times of the day and night (Watson 2021). I worked on the excavations at Torbhlaren over several summers and yet rarely saw the carvings there because the sun was high in the sky. Indeed, I could only photograph the motifs at night using artificial light. Like Achnabreck, Torbhlaren's outcrops align upon the midwinter sunset. While witnessing this spectacle, I noticed that the more complex carvings were illuminated to best effect by the oblique sunlight (Figure 8). Many monuments in the area reflect the wider grain of Kilmartin's topography along a north-east/south-west axis. Witnessed from Temple Wood, the passage of the low winter sun is symmetrically framed by the hills which define Kilmartin Glen, and the high ground enclosing Torbhlaren lends a similar effect. Achnabreck 1 has views across Loch Gilp, and between dawn and dusk, the sun frames the mountainous profile of the Isle of Arran (Figure 9). These relationships must have bestowed a cosmological significance upon Kilmartin's landscape in prehistory (Sheridan 2012: 164–165). While many monuments align upon the sunset, could this event have been the finale to an extended interaction with light itself?

I don't think it a coincidence that Achnabreck's Upper North Panel is the best placed on the outcrop to catch the raking light of the setting midwinter sun. As afternoon becomes evening, the deeper cup-and-ring markings are the first to be emphasised as their grooves darken. But as the sun descends towards the horizon, the fainter spirals and rings also begin to catch the light. Eventually, even the most ephemeral designs are magically revealed. In the intense light of the shortest days of the year, Achnabreck reveals the history of its own creation in an animated performance of light and

Figure 8. The two largest outcrops at Torbhlaren. The main panel of carvings at Tiger Rock is weathered and difficult to see today but is illuminated to best effect by winter sunlight (top). The lower image shows the alignment of the decorated spine of Lion Rock upon the solstice sunset, with a natural terrace on the right. Photos: Aaron Watson/Kilmartin Museum.

Figure 9. A photographic montage revealing the sun's movement across the winter sky as seen from Achnabreck, framing the view towards Loch Gilp and the Isle of Arran. Photo: Aaron Watson/Kilmartin Museum.

shadow. At the end of this sequence, only one carving remains lit by the sun; the double horned spiral that Stan noted to be especially prominent. It was skilfully sculpted and is transformed by the oblique light so that it appears *raised above* the surface of the rock (Figure 10). Only the macehead from the eastern chamber at

Figure 10. The winter solstice sunset illuminates the Upper North Panel at Achnabreck, with the double horned spiral appearing in shallow relief. Photo: Aaron Watson/Kilmartin Museum.

Knowth also displays this symbol in shallow relief, but we may never know for certain whether there was a connection between them.

Rock art is one of the most enigmatic legacies of prehistory. In my mind, this has never been more apparent than at the winter sunset at Achnabreck. For less than an hour, this remarkable place materialises connections between monuments, landscape, and artefacts. Finally, shadow obscures all the carvings, and night descends.

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References

Allen, J.R. 1903. *The Early Christian Monuments of Scotland*. Edinburgh: Society of Antiquaries of Scotland.

Beckensall, S. 1999. *British Prehistoric Rock Art*. Stroud: Tempus Publishing Ltd.

Beckensall, S. 2002. *Prehistoric Rock Art in Cumbria*. Stroud: Tempus.

Beckensall, S. 2005. *The Prehistoric Rock Art of Kilmartin*. Kilmartin: Kilmartin House Trust.

Bradley, R. 1997. *Rock Art and the Prehistory of Atlantic Europe*. London: Routledge.

Bradley, R. 1998. *The Significance of Monuments*. London: Routledge.

Bradley, R. 2019. *The Prehistory of Britain and Ireland*. Cambridge: Cambridge University Press.

Bradley, R. 2020. *A Comparative Study of Rock Art in Later Prehistoric Europe*. Cambridge: Cambridge University Press.

Bradley, R., J. Harding, S. Rippon and M. Mathews. 1993. A field method for investigating the distribution of rock art. *Oxford Journal of Archaeology* 12(2): 129–143.

Bradley, R. and A. Watson. 2019. Found architecture: interpreting a cup-marked outcrop in the southern Highlands of Scotland, *Time and Mind* 12(1): 3–31.

Bradley, R., A. Watson and P. Style. 2019. After the axes? The rock art at Copt Howe, North-west England, and the Neolithic sequence at Great Langdale, *Proceedings of the Prehistoric Society* 85: 177–192.

Carlin, N. 2017. Getting into the groove: exploring the relationship between Grooved Ware and developed passage tombs in Ireland c. 3000–2700 cal BC. *Proceedings of the Prehistoric Society 83*: 155–188.

Cignoni, P., M. Callieri, M. Corsini, M. Dellepiane, F. Ganovelli and G. Ranzuglia. 2008. *MeshLab: an open-source mesh processing tool*. Sixth Eurographics Italian Chapter Conference: 129–136.

Cochrane, A., A. Meirion Jones and K. Sognnes. 2015. Rock art and the rock surface: Neolithic rock art traditions of Britain, Ireland, and northernmost Europe, in C. Fowler, J. Harding and D. Hofmann (eds) *The Oxford Handbook of Neolithic Europe*: 871–894. Oxford: Oxford University Press.

Copper, M., J.A. Sheridan, A. Gibson, B. Tripney, D. Hamilton and G. Cook. 2018. Radiocarbon dates for Grooved Ware pottery from mainland Scotland arising from the project Tracing the Lines: Uncovering Grooved Ware Trajectories in Neolithic Scotland. *Discovery and Excavation in Scotland* 19: 214–217.

Copper, M., J.A. Sheridan, A. Gibson, B. Tripney, D. Hamilton and G. Cook. 2019. Further radiocarbon dates for Grooved Ware pottery from mainland Scotland arising from the project Tracing the Lines: Uncovering Grooved Ware Trajectories in Neolithic Scotland. *Discovery and Excavation in Scotland* 21: 232–234.

Copper, M., D. Hamilton and A. Gibson. 2021. Tracing the lines: Scottish Grooved Ware trajectories beyond Orkney. *Proceedings of the Society of Antiquaries of Scotland* 150: 81–117.

Davidson, J.L. and A.S. Henshall. 1989. *The Chambered Cairns of Orkney*. Edinburgh: Edinburgh University Press.

Dronfield, J. 1996. Entering alternative realities: cognition, art and architecture in Irish passage-tombs. *Cambridge Archaeological Journal* 6: 37–72.

Ellis, C. 2017. Upper Largie Quarry watching brief and excavation. *Discovery and Excavation Scotland* 18: 56.

Eogan, G. and K. Cleary. 2017. *Excavations at Knowth 6*. Dublin: Royal Irish Academy.

Eogan, G. and H. Richardson. 1982. Two maceheads from Knowth, County Meath. *The Journal of the Royal Society of Antiquaries of Ireland* 112: 123–138.

Frodsham, P. 1996. Spirals in time: Morwick Mill and the spiral motif in the British Neolithic, in P. Frodsham (ed.) Neolithic Studies in No-Man's Land: Papers on the Neolithic of Northern England from the Trent to the Tweed: 101–138. *Northern Archaeology* (Special Edition).

Frodsham, P. 2021. 'A most noble work', at the heart of Neolithic Britain. Some thoughts on the Long Meg complex in the light of recent fieldwork, in G. Hey and P. Frodsham (eds) *New Light on the Neolithic of Northern England*: 147–175. Oxford: Oxbow.

Gil-Docampo, M., S. Peña-Villasenín and J. Ortiz-Sanz. 2020. An accessible, agile and low-cost workflow for 3D virtual analysis and automatic vector tracing of engravings: Atlantic rock art analysis. *Archaeological Prospection* 27: 153–168.

Griffiths, S. and C. Richards. 2013. A time for stone circles, a time for new people, in C. Richards (ed.) *Building the Great Stone Circles of the North*: 281–291. Oxford: Windgather Press.

Jones, A.M. 2004. By way of illustration: art, memory and materiality in the Irish Sea and Beyond, in V.

Cummings and C. Fowler (eds) *The Neolithic of the Irish Sea: Materiality and Traditions of Practice*: 202–213. Oxford: Oxbow Books.

Jones, A.M. and M. Díaz-Guardamino. 2019. *Making a Mark: Image and Process in Neolithic Britain and Ireland*. Oxford: Oxbow.

Jones, A.M., D. Freedman, B. O'Connor, H. Lamdin-Whymark, R. Tipping and A. Watson. 2011. *An Animate Landscape: Rock Art and the Prehistory of Kilmartin, Argyll, Scotland.* Oxford: Windgather Press.

Lewis-Williams, D. and T. Dowson. 1990. Through the veil. San rock paintings and the rock face. *South African Archaeological Bulletin* 45: 5–16.

Loveday, R., A. Gibson, P.D. Marshall, A. Bayliss, C. Bronk Ramsey and H. van der Plicht. 2007. The antler maceheads dating project. *Proceedings of the Prehistoric Society* 73: 381–392.

Morris, R. 1971. The petroglyphs at Achnabreck, Argyll. *Proceedings of the Society of Antiquaries of Scotland* 103: 33–56.

O'Kelly, M. 1982. *Newgrange. Archaeology, Art and Legend*. London: Thames & Hudson.

O'Sullivan, M. 1986. Approaches to passage tomb art. *The Journal of the Royal Society of Antiquaries of Ireland* 116: 68–83.

RCAHMS. 1988. *Argyll, Volume 6, Mid Argyll and Cowal, Prehistoric and Early Historic Monuments*. Edinburgh: HMSO.

RCAHMS. 1999. *Kilmartin: Prehistoric and Early Historic Monuments. An Inventory of the Monuments Extracted from Argyll, Volume 6*. Edinburgh: HMSO.

Reynolds, F. 2009. Regenerating substances: quartz as an animistic agent. *Time and Mind* 2(2): 153–166.

Richards, C., A.M. Jones, A. MacSween, J.A. Sheridan, E. Dunbar, P. Reimer, A. Bayliss, S. Griffiths and A. Whittle. 2016. Settlement duration and materiality: formal chronological models for the development of Barnhouse, a Grooved Ware settlement in Orkney. *Proceedings of the Prehistoric Society* 81: 283–310.

Sheridan, A. 2012. Contextualising Kilmartin: building a narrative for developments in western Scotland and beyond, from the Early Neolithic to the Late Bronze Age, in A.M. Jones, J. Pollard, M. Allen and J. Gardiner (eds) *Image, Memory and Monumentality*: 163–183. Oxford: Oxbow.

Schulting, R., A. Sheridan, R. Crozier and E. Murphy. 2010. Revisiting Quanterness: new AMS dates and stable isotope data from an Orcadian chamber tomb. *Proceedings of the Society of Antiquaries of Scotland* 140: 1–50.

Scott, D. 2010. Recent astronomical observations at Kilmartin Glen, Argyll, Scotland. *Antiquity* 84, Project Gallery, viewed 15 February 2022, <http://www.antiquity.ac.uk/projgall/scott324/>

Scott, J.G. 1989. The stone circles at Temple Wood, Kilmartin, Argyll. *Glasgow Archaeological Journal* 15: 53–124.

Sharpe, K. 2007. Rock-art and rough-outs: exploring the sacred and social dimensions of prehistoric carvings at Copt Howe, in A. Mazel, G. Nash and C. Waddington (eds) *Art as Metaphor: The Prehistoric Rock-Art of Britain*: 151–174. Oxford: Archaeopress.

Sharpe, K. and A. Watson. 2010. Moving images: interpreting the Copt Howe petroglyphs, in T. Barnett and K. Sharpe (eds) *Carving a Future for British Rock Art. New Directions for Research, Management and Presentation*: 57–64. Oxford: Oxbow Books.

Sharples, N.M. 1984. Excavations at Pierowall Quarry, Westray, Orkney. *Proceedings of the Society of Antiquaries of Scotland* 114: 75–125.

Sheridan, A. 2004. Going round in circles? Understanding the Irish Grooved Ware 'complex' in its wider context, in H. Roche, E. Grogan, J. Bradley, J. Coles and B. Raftery (eds) *From Megaliths to Metals: Essays in Honour of George Eogan*: 26–37. Oxford: Oxbow.

Simpson, D.D.A. 1996. Irish perforated stone implements in context. *The Journal of Irish Archaeology* 7: 65–76.

Thomas, A. 2016. *Art and Architecture in Neolithic Orkney: Process, Temporality and Context.* Oxford: Archaeopress.

Thomas, J. 1990. Monuments from the inside: the case of the Irish megalithic tombs. *World Archaeology* 22: 168–178.

Valdez-Tullett, J. 2019. *Design and Connectivity: The Case of Atlantic Rock Art* (British Archaeological Reports International Series 2932). Oxford: BAR Publishing.

Watson, A. 2021. Different perspectives, in T. Barnett, M. Ritchie and K. Sharpe, *A Song in Stone: Exploring Scotland's Rock Art*. Forestry and Land Scotland.

Watson, A. and R. Bradley. 2009. On the edge of England: Cumbria as a Neolithic region, in K. Brophy and G. Barclay (eds) *Defining a Regional Neolithic: The Evidence from Britain and Ireland* (Neolithic Studies Group Seminar Papers 9): 65–77. Oxford: Oxbow Books.

Vergne, R., R. Pacanowski, P. Barla, X. Granier and C. Schlick. 2010. Radiance scaling for versatile surface enhancement. *Proceedings of the 2010 ACM SIGGRAPH Symposium on Interactive 3D Graphics and Games*: 143–150. New York: Association for Computing Machinery.

7

Solar panels

Richard Bradley

Phoebus arise
And paint the sable skies
With azure, white and red ...
Give light to the dark world which lieth dead.

William Drummond of Hawthornden
(1585–1649)

Stan Beckensall visited two projects where I was excavating prehistoric rock art. The first was on the Ben Lawers estate overlooking Loch Tay (Bradley *et al.* 2013), and the second at the entrance of Great Langdale in Cumbria (Bradley *et al.* 2019). Those places could not have been more different from one another. In Perthshire, the images were scattered across boulders and outcrops in open country. At Copt Howe, on the other hand, the pecked designs were on vertical surfaces on both sides of a natural portal. This paper suggests that the main connection between them is that they were directed towards the sun. Like other examples considered in this article, they were 'solar' panels.

Ben Lawers and Loch Tay

Such ideas were not apparent when work on Ben Lawers began, and the wider associations of the decorated surfaces only became apparent as the team spent time in the field. The project set out with modest aims. It considered the dating of the decorated surfaces, their environmental setting, and their place in the pattern of settlement (Bradley *et al.* 2013). It also looked for evidence of structures and artefacts associated with the panels. Not all these objectives could be met—there was no real dating evidence—but small-scale excavation showed that the decorated surfaces were associated with concentrations of worked quartz, including broken hammerstones. More artefacts had been deposited in hollows or fissures in the surface of the rock. A boggy area beside one of the decorated outcrops was consolidated by a layer of cobbles, and the stratigraphic sequence was investigated by pollen analysis which showed that the images had been made in an open landscape.

Figure 1. A recently investigated rock carving on the Ben Lawers Estate, looking north-east along Loch Tay. Photo: Aaron Watson.

One reason for the project was to assess the idea that rock art is located at viewpoints (Figure 1). The environmental evidence supported this idea, suggesting that the excavated sites were in places where an observer could see along the lake. But as the work proceeded it became clear that much more was involved. Each cluster of petroglyphs is associated with a shallow basin that provides some shelter from strong winds. At the same time the distribution of these motifs favours the northern shore of Loch Tay and emphasises the section that extends from north-east to south-west – beyond that length there are fewer examples. In the course of the project, we realised that the decorated surfaces command a view of the sun as it moves along the southern horizon. Just as important, the high ground on the opposite shoreline is reflected in the water below, giving the impression of a strange, inverted world.

It soon became apparent that the same axis had influenced the forms of local monuments, some of which share an emphasis on the north-east and south-west; these are the directions of the midsummer sunrise and midwinter sunset respectively. Such structures include the Early Bronze Age ring cairn at Sketewan (Mercer and Midgely 1998), and the stone circle of Croftmoraig which incorporates a decorated stone (Bradley 2016a). Similar relationships are apparent at a more general level, for most petroglyphs in Britain face the sky, and nearly all the images are directed towards the solar arc. Few of them have views between north-west and north-east (Marshall 2021: 348–379).

The decorated surfaces on Ben Lawers share this characteristic, and the sites may have been visited by people who came from other places. They overlook a long-distance route connecting the east of Scotland with the Irish Sea. The mountain has always been a focus for human activity and excavations have recovered pieces of pitchstone brought from the island of Arran (Bradley *et al.* 2013: 49; Atkinson 2016: 26–27). Not far away there was a stone axe quarry at Killin which saw two phases of activity between 2900 and 2300 BC (Edmonds *et al.* 1992). It is clear that open-air rock art was being made during the same period, although its history might have been considerably longer.

Copt Howe and Great Langdale

Stan also visited this excavation which took place near another source of stone axes, on the Langdale Pikes in the central Lake District (Bradley *et al.* 2019). In this case, the pecked motifs are on both sides of a natural passage leading between two rocks known as the 'Langdale Boulders' at Copt Howe. They include 'cups' of geological origin, and these features may have attracted attention in the first place. Their distribution extends to the upper surface of the rock, but the petroglyphs are confined to three vertical panels on either side of

Figure 2. The principal panel at Copt Howe highlighted by the sun. Photo: Aaron Watson.

the portal. There are two decorated panels to the south (Figure 2), and a much smaller one to the north. Other parts of these boulders were left undecorated, although large flakes were detached from them and buried in a rubble platform below the main panel of rock art.

The pecked motifs at Copt Howe have a distinctive character. The curvilinear designs include concentric circles and spirals, but they lack artificial cups and are supplemented by nested arcs, angular designs, and a triangular motif formed by numerous pick marks. These elements make use of the natural vesicles in the rock, and the basic layout of the two main panels is organised around the cracks, fissures and mineral veins visible in the rock surface. There are indications that the designs developed over time, and two motifs located at the base of the rock were masked by the construction of the platform. This was directly linked to two decorated friezes and contained a group of stone artefacts that could have made some of the images. This idea is supported by experimental replication.

The location of Copt Howe is very striking. The rocks are a prominent landmark at the opening of the valley dominated by the Langdale Pikes. These mountains are where stone axes were made during the Early to

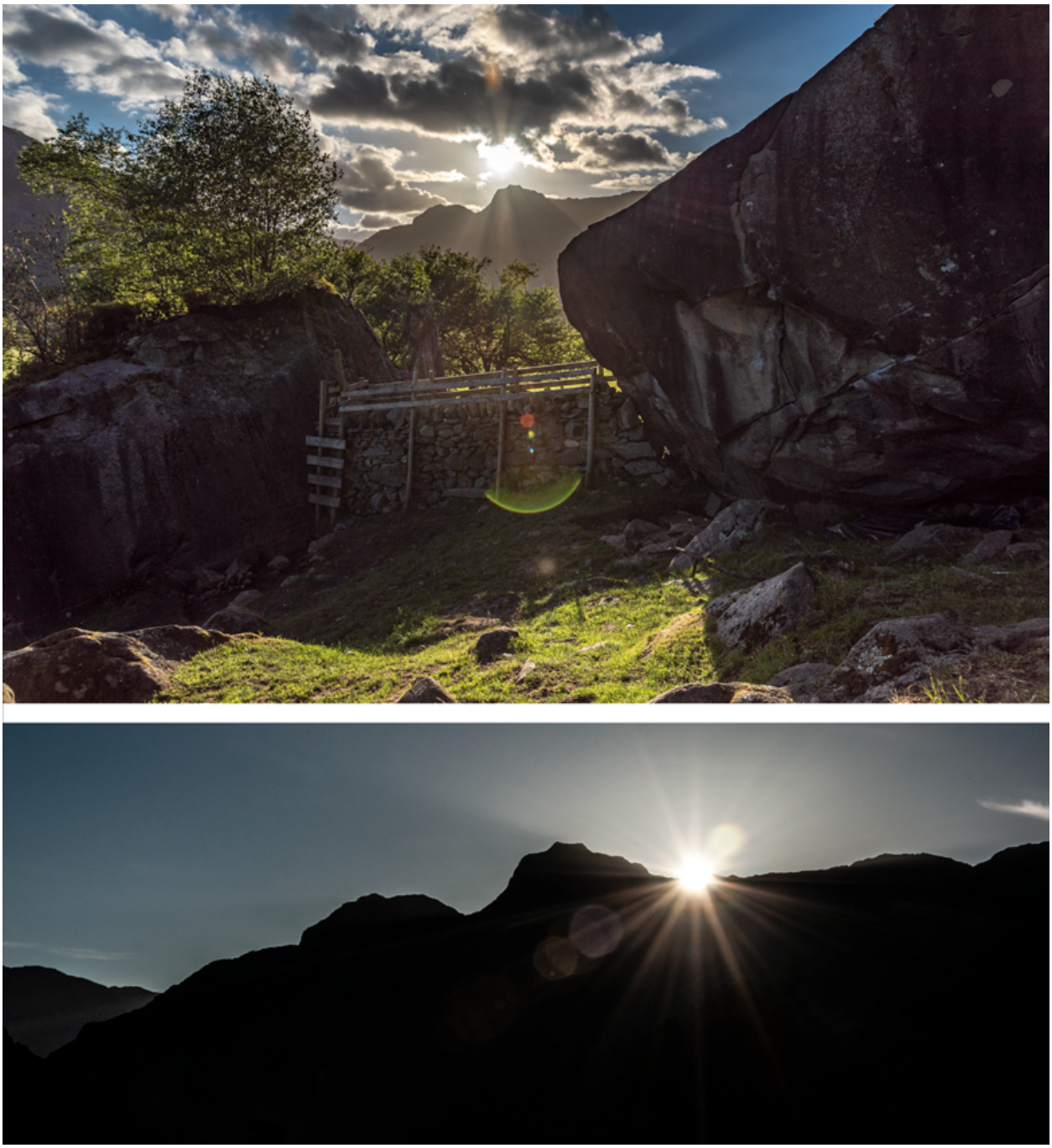

Figure 3. Two views of the midsummer sunset at Great Langdale, viewed through the natural portal at Copt Howe. Photos: Aaron Watson.

Middle Neolithic period (Bradley and Watson 2021). These artefacts were distributed across large parts of Britain and Ireland. They were taken to the edge of the Lake District before their distribution extended across the high ground towards the North Sea. Others may have been carried to the south coast of Cumbria 20km away where some of them were exported. The Irish connection is reflected in the rock art. The circles, spirals and angular designs at Copt Howe resemble those at passage tombs at Loughcrew and especially those in the Boyne Valley which date from the period when the production of stone axes was coming to an end (Shee Twohig 1981: 93–121). Most of the same elements feature in the art of the Eden Valley, in between the Cumbrian mountains and routes leading across the Pennines (Beckensall 2002: 59–70 and 79–99).

At the same time, the position of Copt Howe is directly related to the interpretation of these images. As was the case on Ben Lawers, the position of the sun has a special significance. Once the designs lost their original colour, they would have been difficult to recognise unless they were illuminated by raking light. During our excavation in June 2018 this process created a dramatic effect for about an hour in the middle of the day (Figure 2). All but one of the images are on the south side of the portal leading between the rocks, and the passage itself is in line with the position of the midsummer sun as it crosses the sky behind the summit of Harrison Stickle and sets on the horizon at one of the axe production sites (Sharpe 2007) (Figure 3). Even if artefacts were no longer being made there, the Langdale Pikes must have retained their significance.

Ballochmyle and the Ayr Gorge

Like Copt Howe, the decorated cliff at Ballochmyle (Ritchie n.d.; Stevenson 1993) is readily accessible from the west coast of Britain. It is located above a minor tributary of the River Ayr which runs through a spectacular gorge just over 20km from the sea. Part of the area has been quarried and recent fieldwork has identified further motifs where these watercourses meet. The decorated panels share a striking feature

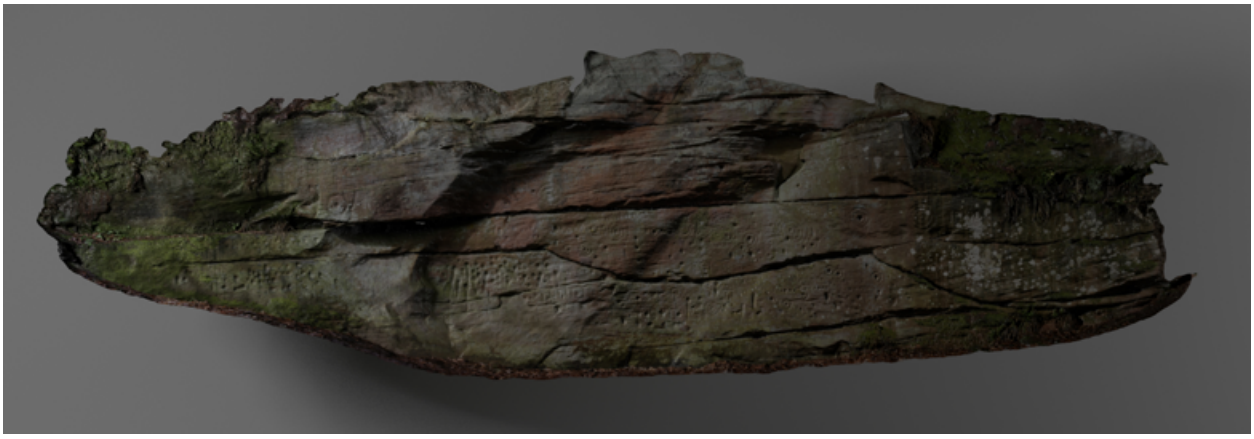

Figure 4. Digital model (created by AOC Archaeology) of the decorated cliff at Ballochmyle. Image: Forestry and Land Scotland.

Figure 5. Digital model (created by AOC Archaeology) of one of the panels on the decorated cliff at Ballochmyle. Image: Forestry and Land Scotland.

with Copt Howe. Again, they occupy vertical surfaces, unlike the horizontal exposures on Ben Lawers. They have other features in common, for again the layout of the images is influenced by natural fractures in the stone which frame the separate motifs. When the site was first discovered, the base of the decorated surface was concealed by later sediments, but photographs taken as it was cleared show that there was a natural ledge about 50cm below the zone of pecked motifs. This could have been equivalent to the platform constructed against the rock face at Langdale, but in this case no artefacts were found.

There are three decorated surfaces at Ballochmyle. Two are very extensive and follow the same alignment (Figures 4 and 5). Each is formed of red sandstone. They are separated from one another by a projecting section of rock which is also decorated. The principal panels are covered with conspicuous motifs which probably developed over a significant period, as some may be superimposed and there are obvious differences in the weathering of these designs. It is not clear that their full extent has been revealed. By contrast, the section of rock between them is more irregular and is decorated in a different style. In fact, there are contrasts between all three of the panels. To the north-east, the cliff is dominated by cups enclosed by concentric rings; there are also lines of cup marks. Although most of the motifs are in rows, few of these elements are directly linked to one another. Instead, their configuration is determined by fissures in the rock.

Less can said about the other main panel. To some extent it offers a contrast. Again, circular motifs are important but in this case, cup marks play a more conspicuous role. Some have tails extending down the rock, and others are joined in pairs. A few examples are enclosed by unusual square designs. It is possible that this panel had a longer history, and it may include elements dating from the historical period. In contrast to Copt Howe, there are no spirals anywhere on the site, but a distinctive feature is the presence of 'ringed stars'. They are found towards the edge of the north-eastern panel and on the projecting section of rock between the main groups of petroglyphs.

The rock art is exceptional for yet another reason. For the most part the decorated cliff extends from north-east to south-west, and it was in those particular sections that the most prominent designs were made. The few motifs in between them are rarer and poorly executed. The use of red sandstone creates a different impression from the weathered tuff at Copt Howe, and today it is hard to imagine this site in its original setting. Close to Ballochmyle the River Ayr is spanned by the oldest railway viaduct in Scotland and the original topography is completely obscured. Figure 6 provides a digital reconstruction of the southern skyline and suggests one reason why this length of cliff was decorated rather than the gorge. The main panels are directed towards a valley on the far horizon into which the sun sets at the winter solstice. Comparison with the Cumbrian site suggests that this place was not selected by chance. Again, a striking natural phenomenon must have been recognised before any rock art was made.

Morwick Mill and the River Coquet

The site at Morwick Mill in Northumberland was investigated by Stan, who discovered some of the images and is responsible for a detailed record of the petroglyphs (Beckensall 2001: 111–116). This was no easy task as they are on a sandstone cliff above the River Coquet (Figure 7). Some were reached by a ladder wedged in the riverbed.

In some respects, the images compare with those at Ballochmyle. They are displayed on a red sandstone cliff but here they extend across more surfaces – there as many as thirteen, divided into four separate groups. In this case none forms an extensive frieze. Instead, there are a series of smaller 'vignettes', each of which deploys the same repertoire of pecked designs. It is possible

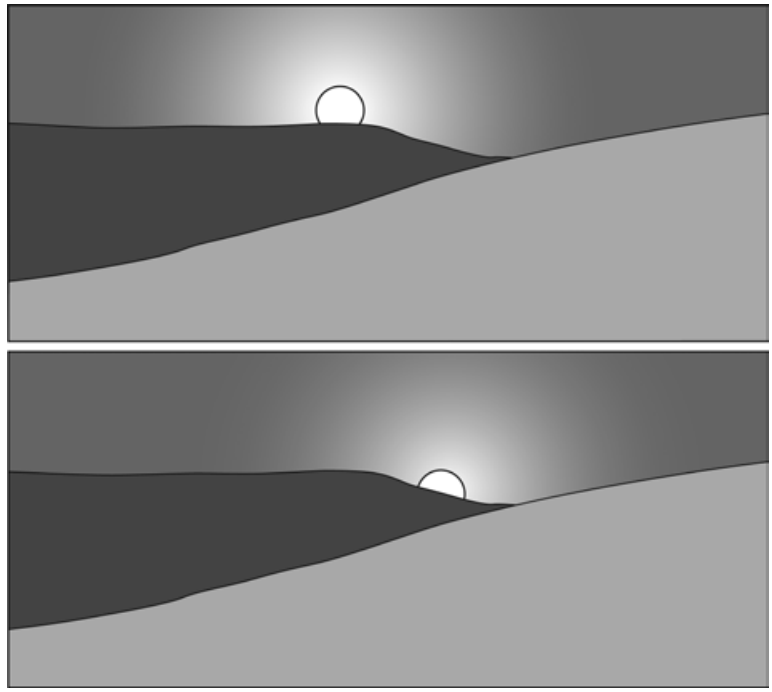

Figure 6. A digital reconstruction of the setting midwinter sun in relation to the skyline viewed from Ballochmyle. Analysis and image by Aaron Watson.

Figure 7. A general view of the decorated cliff at Morwick Mill. Photo: England's Rock Art database.

that some decoration has been lost to rock falls, and individual panels could have been eroded by the river.

There are certain contrasts with Copt Howe and Ballochmyle. The motifs at Morwick were not created at an even height above the bottom of the cliff. Much would depend on the level of the water at the time when they were made, and it seems unlikely that there was any kind of platform where people could gather to inspect them. Stan observed that the site is located near a ford. The decorated surfaces are unusual in yet another way, as they face north.

The dominant motifs at Morwick have little in common with examples in the wider landscape. There is an emphasis on spirals, some of them combined to form more complex patterns (Figure 8). According to Stan's account, the site features 'single, S-shaped, horned and triple spirals, as well as a unique design of three spirals linked to concentric circles, and a spiral surrounded by a ring of cups' (Beckensall 2001: 111). Comparable designs are uncommon (Frodsham 1996). Their closest parallels are in northern and western Britain, but in Ireland they are rare. Similar motifs occur on portable artefacts in the north of Scotland and on decorated surfaces and megalithic monuments close to the sea between Kilmartin and Anglesey. As Stan recognised in his discussion of the site, there are more striking parallels at decorated passage graves in Orkney. That is not surprising as Morwick Mill is so near the east coast. It may have belonged to a different network from the sites around the Irish Sea.

Figure 8. Detail of one group of images at Morwick Mill. Photo: England's Rock Art database.

The decorated cliff at Morwick does not conform to a solar alignment, but its relationship with the Coquet might have been significant. Like the natural portal defined by decorated boulders at Copt Howe, perhaps the ford marked an important threshold for people travelling through this landscape. At the same time the course of the river could have been equally relevant. Although it rises in the Cheviots and extends roughly eastwards towards the sea, its lower reaches have a different configuration. For the 10km leading to its mouth at Amble it runs from south-west to north-east. That does not apply to the short section with the petroglyphs, but those directions might have had a special meaning. Perhaps the direction in which the water flowed influenced the selection of this site.

Hawthornden: rock art and the Romantic Movement

The rock carvings below Gorton House near Hawthornden pose more problems, although they are usually thought to date from the prehistoric period. The basic elements are clearly defined, but the site is very difficult to visit and had not been documented in detail before the work of the Scottish Rock Art Project (Canmore n.d.). It is located on the bank of the North Esk at the base of a red sandstone cliff in Rosslyn Glen. The pecked motifs cover the walls and floor of a natural rock shelter (Figure 9).

Figure 9. Detail of the decorated rock shelter at Hawthornden / Gorton House. Photo: Scottish Rock Art Project.

There are three groups of images with different distributions, but most discussions have focused on just two motifs at this site. One is a prominent spiral, and the other consists of two smaller spirals which are linked together. Both occupy the wall of the shelter together with four ovals or concentric circles; there are no cup marks. In 1939, Childe and Taylor compared the spirals with those in Irish megalithic art, but the recent survey observed that the designs were suspiciously 'fresh-looking'.

A second group of images is confined to a narrow band of rock extending along a side wall of the shelter where they overlap with some of the circular motifs. They resemble crude hieroglyphs and are unlike any other rock art in Britain. For that reason, they are seldom discussed. The third element is more distinctive and consists of a series of circles cut into the floor. With only one exception, they consist of single rings.

The unusual form and condition of these designs raises doubts concerning their antiquity. Rosslyn Glen was celebrated from the time of the seventeenth century poet William Drummond, a friend of Ben Jonson. Drummond lived at Hawthornden Castle on the edge of the gorge. The local topography underwent considerable modification over the following years. Its landscape became famous among enthusiasts for the Sublime and attracted Romantic artists and writers like Turner, Byron and Wordsworth. Trees were planted, walks were laid out through the gorge, and at some stage caves and passages were excavated into the sandstone cliffs (Coles 1911). It is not known when most were made, but they seem to have been established by the eighteenth century. One of them, Wallace's Cave, close to the decorated rock shelter, was reached by a flight of steps. The newly quarried rock face was embellished with a design composed of three spirals like one discovered in 1699 inside the chamber of Newgrange – a structure which was initially described as a 'cave' (O'Kelly 1982: 24). This raises the possibility that the motifs studied by Childe and Taylor (1939) are also of recent origin. Perhaps they were made when the Glen became a tourist attraction.

Even now there is uncertainty. It is tempting to suggest that the spirals on the wall of the rock shelter were inspired by recent discoveries in Ireland, and it is true that some of the other motifs lack any parallels, but the circular motifs in the floor do raise a problem. They are not as striking as the other images and are remarkably like those on two adjacent kerbstones at the Irish passage grave at Dowth which was not recorded until the middle of the nineteenth century (O'Kelly *et al.* 1983: fig. 17). There are other parallels in Irish tombs (Robin 2009: fig. 55). The resemblance between them may be fortuitous, but in some respects Hawthornden shares elements with Morwick and Ballochmyle. All three sites

feature red sandstone cliffs, and the decorated surface is beside a river running from south-west to north-east. Nor do the similarities end there. The rock shelter in Rosslyn Glen is only about 15km upriver from the Firth of Forth, while Ballochmyle is little further from the west coast of Scotland. In the circumstances it is wise to be cautious.

Azure, white and red

Drummond's poem addresses the rising sun and might have described the view from his castle at Hawthornden. But rock art also celebrates the sunset. The images on Ben Lawers conform to both axes, while those at Copt Howe and Ballochmyle are directed towards the setting sun at midsummer and midwinter respectively. The same alignments influenced the orientation of Neolithic and later monuments, including passage graves, stone circles, and henges (Bradley 2016b).

Those structures share other characteristics. Some contain pecked motifs, from the abstract images associated with megalithic tombs to the depictions of axes and daggers at Stonehenge. Several designs share features with the sites considered here. More importantly, they contrast with the normal repertoire of rock art. Certain elements stand out. Concentric rings abound, but those on the sides of cliffs are not provided with tails. Spirals of different kinds are widely distributed. At Copt Howe they are associated with angular designs which are uncommon on decorated outcrops.

Like those images, most of the decoration associated with stone-built monuments is found on vertical surfaces, including the kerbstones, passages, lintels and chamber walls of megalithic tombs (Shee Twohig 1981: 93–121). A few sites conform to solstitial alignments and are directed towards the rising or setting sun. The clearest evidence comes from Ireland where it applies to 16% of the well-preserved passage graves (Prendergast *et al.* 2017). There is comparable evidence from a smaller number of stone settings which emphasise the north-east and south-west (Bradley 2016b).

The sites considered here share many of these features. At the same time, they are different from other decorated surfaces (which are generally horizontal). At Copt Howe, Ballochmyle and Morwick Mill, the pecked motifs are on the sides of conspicuous rocks: cliffs or huge glacial boulders. Unlike chambered tombs, they cannot be considered as buildings. Rather, they were a kind of 'found architecture' (Bradley and Watson 2019; Sharpe, this volume) and attracted attention because of the natural elements associated with them. They included geological features such as fissures, cups and veins. People could also observe their relationship with the sun. The decorated panels at Copt Howe and Ballochmyle were aligned on the solstices. These elements played an equally important part in prehistoric monuments and such places were treated in similar ways.

One such monument is Long Meg and her Daughters, Cumbria. Long Meg, a giant red sandstone monolith decorated on one face with spirals and concentric rings, stands outside the stone circle of her Daughters in line with the midwinter setting sun (Frodsham 2021). It is quite possible that Long Meg herself was quarried from an already decorated river cliff above the Eden, along a stretch of the river that flows roughly south-west to north-east. However, no evidence of further carvings on these cliffs has ever been noted, and the exact of source of Long Meg remains uncertain, so, although potentially relevant, the site is not considered in any detail here.

Particular kinds of art were shared between ancient structures and natural rock formations. The images vary between the sites, but some refer to wider connections. Perhaps the closest links are between those at Copt Howe and the megalithic art of the Boyne Valley which also combines curvilinear and angular designs. Spirals and concentric rings make an important contribution (Shee Twohig 1981: 98–101). Horned spirals feature prominently at Morwick, but there is also one at Copt Howe. They are related to designs inside the passage tombs of Anglesey and Orkney. Again, there is the same connection between an open-air site and megalithic art, but in this case it takes a different form. It is wrong to treat all the spirals as a single group.

Ballochmyle shares features with Copt Howe. In both cases the designs were on vertical surfaces, but different motifs are employed. Although concentric rings feature prominently at both sites, there are no spirals at Ballochmyle, nor are there any angular designs. Instead, there is another unusual image on the decorated cliff: a 'ringed star'. This appears towards the limits of the most conspicuous panel between the two main groups of petroglyphs. It also occurs in Irish passage tombs and is a particular feature of those at Loughcrew (Shee Twohig 1981: 205–220). It does not appear at Copt Howe or Morwick Mill, nor is it among the controversial motifs at Hawthornden.

Occasional details add weight to these comparisons. Apart from Ben Lawers, all the places discussed in this chapter are close to the North Sea or the Irish Sea and none is much more than 20km (a day's travel) from the coast. They were accessible from far-off regions, and that helps to account for the wider references expressed by their distinctive rock art. The argument extends to the seemingly exotic motifs found on other

Figure 10. Triple circles or spirals at Ballochmyle, Newgrange and Morwick. Image: Aaron Watson.

sites, like those in Kilmartin Glen and the Eden Valley. It also applies to the distribution of occasional angular motifs in northern Britain, most of which are near the sea (Vyner 2011: 19–20).

A second link concerns the organisation of some of the designs (Figure 10). Circles and/or spirals can be linked together to form a single design. This applies to at least three groups of images at Morwick and a triangular setting of concentric circles in one of the panels at Ballochmyle. They may have developed incrementally, but the end results are strikingly similar. The same configuration is more common in megalithic art than it is in the open landscape. The best-known example occurs in the chamber at Newgrange (O'Kelly 1982: fig. 47) and it is ironic that it was copied at Hawthornden where it is associated with a staircase cut into the rock during the post-medieval period.

Lastly, the distribution of rock art at Copt Howe suggests another connection with megaliths. It is known that Irish tombs place a special emphasis on the right-hand side of the entrance passage (Robin 2009: 239–251). This is where most decoration is found, and where the side chambers are larger and contain more artefacts. These conventions could be related to the movement of sunlight into the structure. The same may be true at Copt Howe where the rays of the setting sun travel through a natural portal embellished in a style best documented in the Boyne Valley. Viewed from the direction of the Langdale Pikes, nearly all the motifs are in the equivalent position to those in the Irish monuments. In a sense the 'Langdale Boulders' were treated like a chambered tomb.

Some of these ideas will be more plausible than others, and I accept that few of my suggestions can ever be proved. But they are by no means fanciful, as most depend on repeated observations on the ground, and on detailed records of the kind that Stan has compiled over the years. Such records will stand the test of time while interpretations of rock art can easily change. To echo his fellow poet, Drummond of Hawthornden, Stan's writings shed new light on what once seemed a darker world.

Acknowledgments

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References

Atkinson, J. 2016. *An Archaeological Landscape in Time. Results from the Ben Lawers Historical Landscape Project.* Scottish Archaeological Internet Report 62.

Beckensall, S. 2001. *Prehistoric Rock Art in Northumberland*. Stroud: Tempus.

Beckensall, S. 2002. *Prehistoric Rock Art in Cumbria: Landscapes and Monuments*. Stroud: Tempus.

Bradley, R. 2016a. Croftmoraig: the anatomy of a stone circle, in R. Bradley and C. Nimura (eds) *The Use and Reuse of Stone Circles. Fieldwork at Five Scottish Monuments and its Implications*: 141–151. Oxford: Oxbow.

Bradley, R. 2016b. The dark side of the sky. The orientations of earlier prehistoric monuments in Ireland and Britain, in M. Dowd and R. Hensey (eds), *The Archaeology of Darkness*: 51–61. Oxford: Oxbow.

Bradley, R. and A. Watson, 2019. Found architecture: Interpreting a cup-marked outcrop in the Southern Highlands of Scotland. *Time and Mind* 12: 3–31.

Bradley, R., and A. Watson 2021. Langdale and the Northern Neolithic, in G. Hey and P. Frodsham (eds.), *New Light on the Neolithic of Northern England*: 7–16. Oxford: Oxbow.

Bradley, R., A. Watson and H. Anderson-Whymark. 2013. Excavations at four prehistoric rock carvings on the Ben Lawers Estate, Perth and Kinross, 2007–2010. *Proceedings of the Society of Antiquaries of Scotland* 142: 27–61.

Bradley, R., A. Watson and P. Style. 2019. After the axes? The rock art at Copt Howe, north-west England, and the Neolithic sequence at Great Langdale. *Proceedings of the Prehistoric Society* 85: 177–192.

Canmore n.d. Gorton House, viewed 10 January 2022, <https://canmore.org.uk/site/51807/gorton-house>

Childe, V.G. and J. Taylor. 1939. Rock-scribings at Hawthornden, Midlothian. *Proceedings of the Society of Antiquaries of Scotland* 73: 316–18.

Coles, F. 1911. Notices of rock-hewn caves in the valley of the Esk and other parts of Scotland. *Proceedings of the Society of Antiquaries of Scotland* 45: 265–301.

Edmonds, M., A. Sheridan and R. Tipping. 1992. Survey and excavation at Creag na Caillich, Perthshire. *Proceedings of the Society of Antiquaries of Scotland* 122: 77–112.

Frodsham, P. 1996. Spirals in time: Morwick Mill and the spiral motif in the British Neolithic, in P. Frodsham (ed.) Neolithic Studies in No-Man's Land: Papers on the Neolithic of Northern England from the Trent to the Tweed: 101–138. *Northern Archaeology* (Special Edition).

Frodsham, P. 2021. 'A most noble work', at the heart of Neolithic Britain. Some thoughts on the Long Meg complex in the light of recent fieldwork, in G. Hey and P. Frodsham (eds) *New Light on the Neolithic of Northern England*: 147–175. Oxford: Oxbow.

Marshall, A. 2021. *Orientations of Prehistoric Monuments in Britain: A Reassessment.* Oxford: Archaeopress.

Mercer, R. and M. Midgely. 1998. The Early Bronze Age cairn at Sketewan, Perth and Kinross. *Proceedings of the Society of Antiquaries of Scotland* 127: 281–338.

O'Kelly, M. 1982. *Newgrange. Archaeology. Art and Legend*. London: Thames and Hudson.

O'Kelly, M., C. O'Kelly, R. O'Sullivan and R. Firth. 1983. The tumulus of Dowth, Co. Meath. *Proceedings of the Royal Irish Academy* 83C: 135–190.

Prendergast, F., M. O'Sullivan, K. Williams and G. Cooney. 2017. Facing the sun. *Archaeology Ireland* 31(4): 10–17.

Ritchie, M. n.d. Case study 24: creative archaeological visualization of the rock art at Ballochmyle, in S. Foster, K. Forsyth, S. Buckham and S. Jeffrey (eds) *Future Thinking on Carved Stones in Scotland*, viewed 10 January 2022, <https://scarf.scot/thematic/future-thinking-on-carved-stones-in-scotland/future-thinking-on-carved-stones-in-scotland-case-studies/case-study-creative-archaeological-visualization-of-the-rock-art-at-ballochmyle/>

Robin, G 2009. *L'Architecture des Signes.* Rennes: Press Universitaires de Rennes.

Sharpe, K. 2007. Rock-art and rough-outs: exploring the sacred and social dimensions of prehistoric carvings at Copt Howe, in A. Mazel, G. Nash and C. Waddington (eds), *Art as Metaphor: The Prehistoric Rock-Art of Britain*: 151–174. Oxford: Archaeopress.

Shee Twohig, E. 1981. *The Megalithic Art of Western Europe.* Oxford: Clarendon Press.

Stevenson, J. 1993. Cup-and-ring markings at Ballochmyle, Ayrshire. *Glasgow Archaeological Journa*l 18: 33–40.

Vyner, B. 2011. A new context for rock art: a Late Neolithic or Early Bronze Age ritual monument at Fylingdales, North Yorkshire. *Proceedings of the Prehistoric Society* 77: 1–23.

8

Cup-marked stones in Bronze Age cairns. Excavations on Fawdon Hill (Redesdale) and other sites in north-east England

Richard Carlton

When a small stone bearing opposing cup marks was found during excavations at Harehaugh Iron Age hillfort in Coquetdale in 2002 (Carlton 2012), Stan Beckensall was called over from another trench to give his expert opinion. His view, that this was an incipient mace-head derived from an earlier episode of occupation, was one of a range of ritual and secular interpretations suggested for the object. The fact that a range of hypotheses was possible and that most of them were plausible, reflects the current state of knowledge and understanding in the branch of rock art studies concerned with such portable cup-marked stones.

Whilst most commonly found in Bronze Age cairns and interpreted as ceremonial or symbolic, it is important to acknowledge that cup-marked stones have also been found in Iron Age and medieval contexts where they are more likely to be assigned utilitarian functions such as mortars and door or window sockets. That said, by far the greatest concentrations of such finds in the northern uplands have been made in Bronze Age funerary or other presumed ritual-ceremonial contexts, a phenomenon Stan Beckensall himself was one of the first to explore in his investigations at Fowberry Moor, Northumberland. These investigations, along with his wider descriptive and interpretive work on rock art in general, provide inspiration for the following descriptions and discussion which focus on cup-marked stones found in the context of a Bronze Age cairn in Redesdale, undertaken as part of the Revitalising Redesdale landscape partnership scheme, funded by the National Lottery Heritage Fund and hosted by the Northumberland National Park Authority.

Fawdon Hill: survey

The origins of the fieldwork findings discussed here lie in the early 1960s when R.H. Walton included in his analytical account of the Battle of Otterburn (delivered to the Berwickshire Naturalists Club) a note on some possible medieval burial mounds found on Fawdon Hill.

Figure 1. Aerial view over Fawdon Hill, from the south-east, with excavations in progress towards the bottom-left corner of the image.

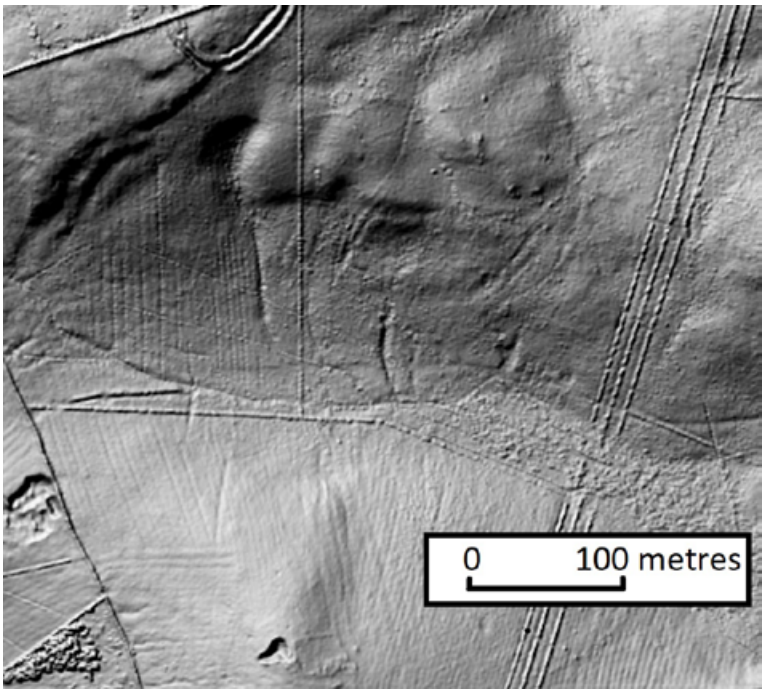

Figure 2. Lidar image of Fawdon Hill, showing part of the Iron Age hillfort at the top (north), with the cairnfield visible to its south-east, extending over much of the north-east quadrant of the image. Other archaeological features visible in the image are post-medieval. (Produced using lidar data provided by the Environment Agency. Reproduced from Frodsham 2020)

This is an open area of enclosed, south-facing moorland above Otterburn in Redesdale, which he had come to believe was the site of the late-fourteenth century battlefield (Walton 1962–3). Whilst not entirely dismissing that possibility, a site visit carried out in February 2019 with *Revitalising Redesdale* volunteers, including Captain Walton's daughter, Barbara McCabe, reinterpreted the mounds as surviving components of a prehistoric and later, multi-phase landscape dominated in the north by the impressive earthwork remains of Fawdon Hill Iron Age hillfort. A search of the ground to the south and south-east of the enclosure revealed several such low mounds of stone and earth, as well as indications of others largely buried below the turf, circular or sub-circular in form, and measuring up to 5m in diameter and 0.8m in height. The features appeared to be restricted in distribution to the rough, sloping ground on the southern side of the hill; searches in the wider vicinity, towards a marsh in the south-east and Colwell hillfort further to the east, failed to record similar features.

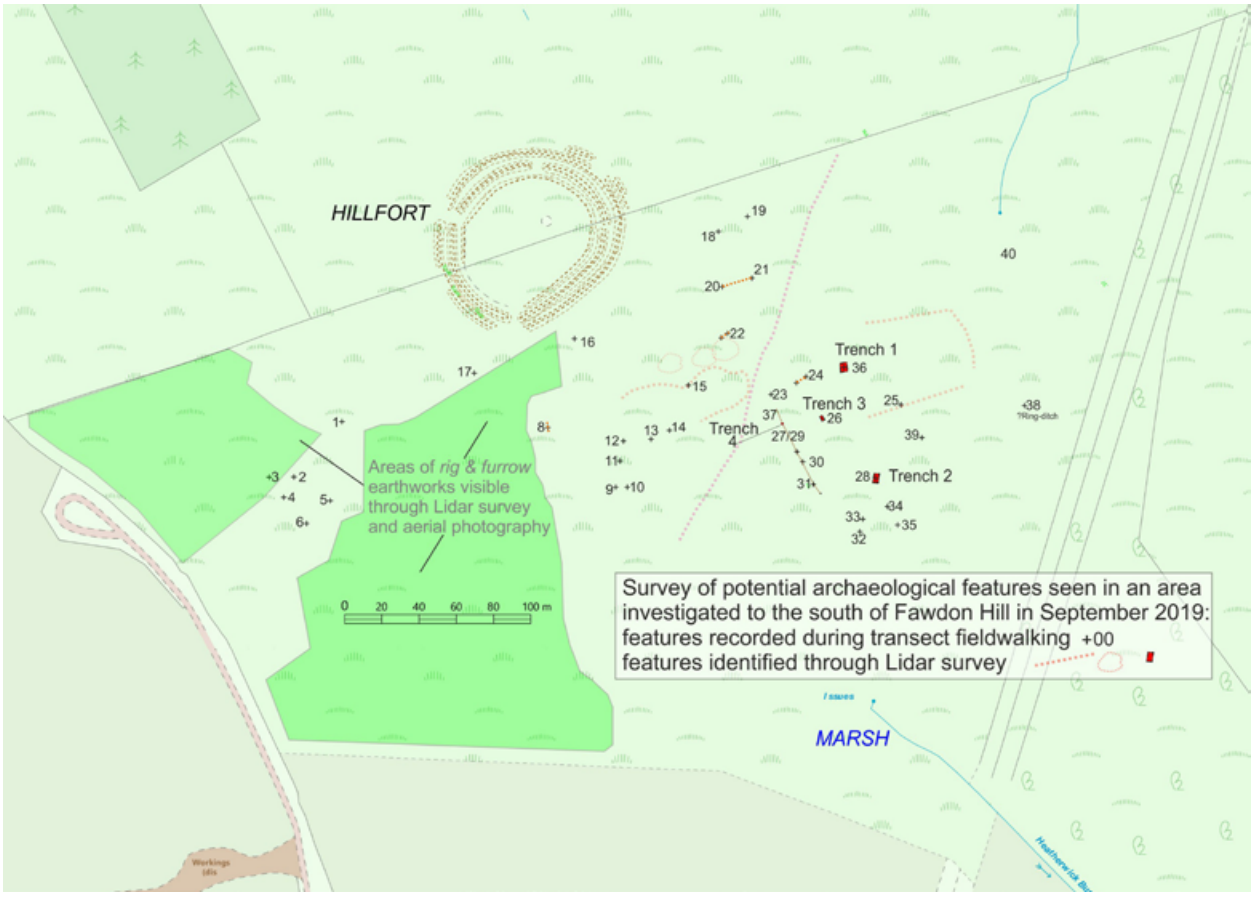

Figure 3. Plan showing features on Fawdon Hill. The excavated cairn with cup-marked stones is shown here as 'Trench 2'.

A subsequent episode of intensive field survey within a large area enclosed by field walls and fence-lines south of Fawdon Hill, was carried out for *Revitalising Redesdale* and backed-up by study of aerial photographs and lidar imagery (Frodsham 2020) ahead of trial excavations in the summer of 2019. This revealed that much of the western part of the area under consideration, divided from the east by a linear dyke extending from close to the southern entrance to the hillfort, had been subject to medieval or post-medieval cultivation, as evidenced by extensive areas of overlapping ridge-and-furrow earthworks, which had destroyed all but a handful of earlier features. In the eastern part, however, where no evidence for past cultivation was apparent, a variety of subtle earthwork features survived, including up to 20 cairn-like features within and around low-lying, sinuous, linear earthworks (Figures 1–3). A particular cluster of such features was recorded in the centre of this area, defined by linear banks to the west, north and east, and by marshland to the south. Hints of possible prehistoric cord-rig seen on aerial photographs were not substantiated by ground survey, and the isolated sections of earthwork embankment detected so far do not amount to a recognisable field system.

Fawdon Hill: excavation

Time constraints on the subsequent excavation phase, which aimed to clarify the date and character of these remains, allowed the partial investigation of only five features over eight days in the field, spread over two seasons (2019 and 2021). Three of the features were stony mounds and the others were found to be parts of a linear bank around a prominent natural knoll. The investigation of the three cairn-like features produced strikingly different results. The first, a rocky mound measuring 3m along its longer E–W axis, formed the highest point of a distinct knoll approximately 130m south-east of Fawdon Hill hillfort; it was soon shown to be a natural, apparently unmodified outcrop of bedrock. A second, superficially similar mound below it, partially investigated in 2019 and more completely in 2021, was, however, found to be the southernmost of a cluster of possible cairns around the natural knoll. This feature, which measured 4.10m N–S by 6m E–W, comprised a compacted layer of medium and small sub-rounded and subangular sandstones within a loose matrix of reddish-brown silty soil, forming a roughly oval-shaped low mound, orientated approximately east to west and inclining to the south. Voids revealed after exploratory excavation near the centre of the mound were suggestive of a possible burial cavity, but upon excavation no structural or other remains were found within the structure or around its periphery to corroborate this, leading to the conclusion that it was probably a prehistoric field clearance cairn.

Two other features around the knoll were investigated by test-pits. The first (at NY 89767 93900) targeted a large protruding boulder, measuring 0.70m by 0.50m and 0.50m high, one of several forming a linear bank enclosing or demarcating the perimeter of the natural knoll. The test-pits revealed a firm upper layer of smaller stones and earth into which the boulder was set. The second (at NY 89862 93894) examined the eastern part of what appeared to be the same, sinuous earthwork and found it to be a drystone bank or wall which survived well for a considerable length around the eastern side of the knoll.

Finally, a third apparent mound (at NY 89800 93924) was explored in 2019 and more fully reinvestigated in 2021 (Figure 4). This mound, 3.25m (N–S) by 2.85m (E–W) and approximately 0.27m high prior to excavation, was positioned on fairly level ground north of the features noted below. Its upper part comprised a layer of small, rounded and angular sandstone fragments mounded up within a reddish-brown silty matrix. Within the stone mound, two cup-marked stones were initially identified *in situ*, both bearing single cup marks on naturally flat surfaces placed facing upwards. One of these (Stone 2), a large angular block of sandstone was centrally positioned within the cairn, while the other, smaller and more portable stone (Stone 7) was located on the edge of its north-east quadrant.

Removal of the upper layers of stones towards the north-western end of the mound revealed a possible inner cairn structure comprising flatter stones arranged in a sub-circular pattern measuring approximately 1.32m E–W and 0.90m N–S, and initially suspected to overlie a possible grave cut, although later excavation discounted this. Positioned east and west of the 'inner cairn' were two possible post-settings, while a well-made flagged surface extended some 1.20m south-west from the edge of the overlying stone mound and continued beyond the western limit of excavation.

Further investigation (in 2021) revealed a compact (or compacted) silty deposit below the inner stone cairn sitting partly upon a substantial deposit of ashy silt, which appeared to underlie the south-west quadrant of the inner cairn. Removal of the flagged surface revealed that, while most of it sat upon natural sub-soil, underlying stonework existed on its eastern side in two main concentrations, perhaps representing the sides of a doorway. Extending south-eastwards from the middle of the western edge of the trench, adjacent to the centre-point of the inner cairn, was a narrow, ash-filled gulley directly underlying the wider ash deposit noted above, which ran on a roughly straight course towards the possible doorway where it ended in a soakaway or post-hole. Associated with the ashy deposit and apparent doorway were a number of struck flint flakes

Figure 4. The cairn at early (above) and later (below) stages of excavation.

and two fragments of pottery, including a small rim fragment of possible food-vessel type. Another piece of struck flint was recovered from the base of the stone cairn at its intersection with the underlying compacted silty deposit. A total of seven cup-marked stones was recovered exclusively from the stone mound, but there was no obvious pattern to their distribution or orientation, with some facing upwards and others downwards.

Analysis

In order to determine the nature of the deposits upon which the cairn was constructed, three bulk samples recovered from the excavation were analysed by Lorne Elliott of Durham University. These consisted of a compressed or burnt silty deposit immediately below the stone mound, a thick deposit of ashy material below this, and material from a narrow, ash-filled gulley cut into the natural sub-soil. All three samples produced relatively large amounts of organic remains, but the thick ashy deposit had the greatest concentration of charred material, dominated by fragmented charcoal of several species, as well as modest quantities of charred grass-type rhizomes and seeds from plants characteristic of rough grassland. Charcoal was also common in the gully fill which additionally provided evidence of food waste, including the charred remains of hazelnut shells and a wheat grain, probably emmer, typical of the Neolithic and Bronze Ages. The apparent absence of oak charcoal may reflect the limited nature of resources locally available, while the charred plant macrofossils from the thick ashy deposit are characteristic of burnt turves rather than peat. Despite the absence of cremated bone from the deposits, the charcoal and charred plant macrofossil assemblages are considered characteristic of pyre debris, and on palaeoenvironmental grounds alone, especially in view of the large quantity of burnt material generated, it is considered very possible that the site was used for cremation.

Radiocarbon dating carried out on charcoal recovered from the samples described above produced dates suggesting activity over a considerable period, probably extending over at least two centuries in the Middle Bronze Age, during the second half of the 2nd millennium BC. A slight anomaly is provided by a hazelnut fragment from the ash-filled gully which, on the basis of stratigraphy, should derive from the earliest context, but which dated to later than samples from the overlying deposits, suggesting either some mixing of deposits at the time of deposition or a degree of subsequent bioturbation. These dates confirm the initial dating of struck flint and pottery finds to the Middle Bronze Age.

The cup-marked stones

Amongst several intriguing elements, the discovery of seven cup-marked stones (Figures 5 and 6) within this small cairn of no more than 100 individual stones, set on burnt deposits, appears to provide significant potential for site interpretation. All but one of the cups were added to flat faces of broken pieces of the natural, relatively finely textured sandstone which outcrops in places across the site, the exception being a more

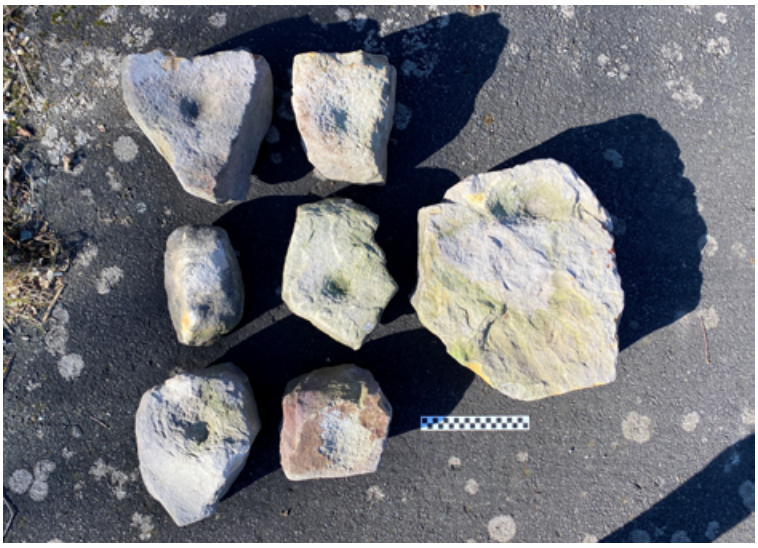

Figure 5. The seven cup-marked stones found within the cairn.

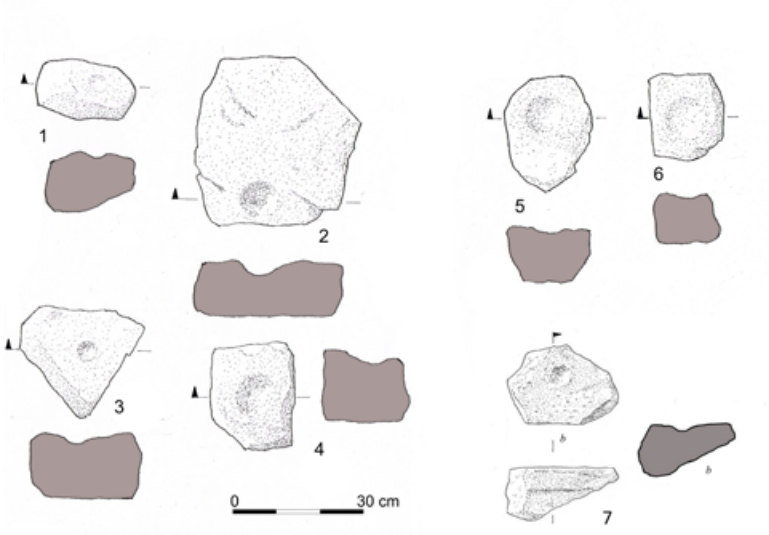

Figure 6. Drawings of the cup-marked stones by Peter Ryder.

rounded boulder (Stone 1) probably derived from the sub-soil. The cup-marked stones ranged in size from the latter, rounded example of 22cm maximum diameter to the barely portable Stone 2, measuring 43cm maximum diameter. All appear unworked save for the cup-marked surfaces. The cup marks are in most cases centrally placed, though on Stone 2 the cup mark is placed at the extreme periphery of the worked surface. The cup marks themselves are highly varied in form and size, ranging from 4 to 8cm in diam. and 1 to 3cm in depth, though they all tend to be roughly circular. Some, such as those on Stones 3 and 4, are discrete, regular, circular cups 1.53cm deep while others, notably on Stone 2, are formed of double cups or, in the case of Stone 6, shallow cups within a wider, pecked area. Stone 6 may also bear the remains of two incipient cups in addition to the most prominent example, all within a wider area of pecking, while Stone 2 contains a second, incipient cup next to the primary example, effectively forming the beginnings of an elongated single cup, with another possible cup mark just visible in low light at the opposite end of the stone. Peck marks are clearly visible on most stones, sometimes around the cup (perhaps relating to the creation of a working surface), but most frequently within the cup marks themselves. In some cases, however, such as that of Stone 7, which was found in the upper part of the cairn, weathering has removed traces of pecking and smoothed the upper surface of the stone and its cup. The variety of forms, dimensions and patterns represented here, as well as the context of their deposition in a discrete, but rather featureless mounded cairn, set above features and finds which seem potentially related to both domestic and funerary or ceremonial activities, is intriguing and merits some consideration from a regional perspective.

Discussion

Decorated portable stones have been reported from several cairns excavated elsewhere in north-east England, although Beckensall's caution that in some cases they may have been missed by the excavators carries some resonance with respect to the Fawdon Hill site, where two of the stones were noticed only during careful examination of each stone during back-filling. While we can be certain that the Blawearie cairns in Northumberland, excavated by Beckensall in 1984–88 (Hewitt and Hewitt, this volume), did not contain decorated stones, cases have been reported where cup-marked stones do not seem to have been noticed during excavation. In this regard, Beckensall makes note of the case of Howe Tallon barrow excavated on Barningham Moor, County Durham, in the 1890s, where cup-marked stones removed from the cairn were overlooked at the time and subsequently built into an adjacent field wall where they were discovered in the 1970s and 1990s (Brown and Brown 2008: 112–113). It is quite possible, therefore, that cup-marked stones are rather more abundant in prehistoric contexts than reported finds suggest.

It is notable, however, that when reported in association with cairns, cup-marked stones more often than not occur in numbers, rather than as individual examples, and that when such cairns have been excavated elsewhere in northern England they have often, as at Fawdon Hill, been associated with multi-phase sites. In this regard, Beckensall (1983: 131–146, 2001: 130–136)

highlights the example he excavated at Fowberry, near Wooler, where a small doubled-kerbed round cairn containing 20 portable stones marked mostly with simple cup marks (but including one quite complex example with concentric rings and radials), was built over complex rock art panels carved on bedrock. Beckensall's excavation of the nearby Weetwood Moor cairn revealed a decorated kerbstone (Mazel, this volume) and 37 cup-marked cobbles (Figure 7), 11 of which were placed face-down at the base of the cairn, while a second cairn at Weetwood contained decorated material broken off an adjacent bedrock panel, providing some relative dating for the cairns and portable petroglyphs in relation to the earlier panels (Beckensall 1983: 119–122, 2001: 126–130). Beckensall (1983: 36–43, 2001, ch. 3) also notes a number of further cairn sites containing multiple cup-marked stones, notably Pitland Hills barrow in the North Tyne valley which was associated with two cist burials and contained 17 examples. The Ford Westfield burials also produced a number of cup-marked stones set over cremations, although in most cases only single stones are reported. Beckensall also suggests that numerous other carved stones, without detailed contexts, may have come from destroyed burial cairns.

Elsewhere in the north-east, multiple finds of cup-marked stones in cairns have been documented on the eastern flanks of the Pennines in County Durham (Brown and Brown 2008), including, as noted above, on Barningham Moor, and around the northern edge of the North Yorkshire Moors (Brown and Chappell 2005). Here, the notable site of Hinderwell Beacon (Brown and Chappell 2005: 170–171), excavated in the early twentieth century, contained an estimated 150 cup-marked stones out of around 300 stones in total. The Street House cairn at Loftus, excavated by Vyner (1984) contained several cup-marked stones within the kerb of a barrow dated to *c.* 1900 BC, and the nearby Street House 'Wossit' 'ritual enclosure' contained 12 cup-marked stones presumed to be of similar, Early Bronze Age origin (Brown and Chappell 2005: 181). At Howe Hill, south of Brotton, a cairn covered grave cuts containing eight cup-marked stones placed facing downwards (Brown and Chappell 2005: 181) as in the Weetwood Moor cairn excavated by Stan Beckensall.

The fact that all the cup-marked stones in the Weetwood Moor cairn were found facing downwards suggested to Beckensall that, unlike the earlier rock art panels on bedrock, the decoration was no longer meant to be seen, and that it reflected an intimate relationship between the dead and the living, perhaps similar in purpose to grave goods or, with subtly different intent, as wreaths at a funeral intended as an individual or collective mark of respect by and for the living rather than for the use of the dead in the afterlife (Beckensall 2001: 129). Beckensall also notes that the stones displayed variety in the complexity of their design, with many unfinished, suggesting that the act of making the marks may have been more significant than the finished product, an observation that appears paralleled in the Fawdon Hill assemblage.

Figure 7. Cup-marked stones from the Weetwood cairn (scale in cms). Most have just simple cup marks, though a few also have rings. (Photo: Stan Beckensall).

At Blawearie in Northumberland, a site first excavated by Canon Greenwell in 1865, re-examination by Hewitt and Beckensall in the 1980s provided evidence that the original function of the site was probably not funerary and that the burial cists in the cairn were secondary (Hewitt and Beckensall 1996; Hewitt and Hewitt, this volume). Conversely, however, an adjacent cairn appeared to seal a pyre, as also suggested by the excavated remains on Fawdon Hill, suggesting a primary mortuary function. While such small, stony mounds, or cairns are the most common form of burial monuments in the uplands (and can be indistinguishable on the basis of surface evidence form 'clearance cairns', some of which may have combined both clearance and burial), it is increasingly observed that the diversity of form, size and materials represented is mirrored in the variety of associated grave goods and suggested funeral rites, presumably reflecting chronological and regional differences (see Fowler 2013). Continued research may yet determine whether any patterns exist relating cupmarks to other aspects of the cairns in which they are found.

Return to Fawdon Hill

The cairns excavated on Fawdon Hill in 2019 and 2021 seem to be part of a complex of features representing both a settlement—represented by a clearance cairn, linear earthworks and a possible roundhouse—and a ceremonial site, possibly involving human cremation, indicated by the remains of a likely pyre over the possible settlement remains. This pattern reflects other Bronze Age landscapes of upland Northumberland which often contain settlements, fields and funerary monuments in close proximity, along with simple rock art, suggesting discontinuity with the past and, perhaps, more transient usage. Frodsham links this with the intensification of agricultural and settlement activities in the uplands with the move towards a forward-looking 'landscape of agriculture' (Frodsham 2006), implying reduced reverence for the past and greater dependence on human, rather than supernatural agency. While sacred or funerary and domestic-agricultural features are often found close together within this more congested, later landscape, it seems that some separation was maintained, as demonstrated by the different character of funerary-ceremonial and clearance cairns on Fawdon Hill and at Ravensheugh Crags, also in Northumberland (Altogether Archaeology 2013; Bowyer n.d.). Here, the majority of cup-marked stones were associated with the easternmost of two cairnfields, each containing in the region of 20 small cairns, the eastern cairns being suggestive of burial monuments whilst the western group, where no cup-marked stones were found, contained only clearance cairns.

The Fawdon Hill cairn, with its cup-marked stones, sits within an apparently quite complex and extensive Bronze Age landscape. It appears to represent the final of several phases. Palaeoenvironmental analysis suggests that these phases related to both domestic and ceremonial activity, while radiocarbon dating indicates that they took place over a relatively long period. Interpretation of the function or meaning of the cup-marked stones cannot be divorced from the context of their use and deposition which, in this case, seems to be related directly to the formation of the stone cairn, rather than with preceding activities on the site. This is evidenced by the apparently random choice of stones for the creation of cup marks, where the main criterion seems to have been the presence of a flattish working surface rather than portability or durability, as might be expected if they had been produced for a purely utilitarian function. Further, the pecking on several of the stones appears very 'fresh', suggesting that it was carried out immediately prior to deposition in the cairn. Finally, the cup marks themselves are varied in form, with at least one (on Stone 6) visible only as a shallow indentation or possibly a series of shallow indentations on a heavily pecked surface.

Experimental cup marks

This last observation led to some speculation during the Fawdon Hill excavation, regarding the time required to create such shallow, in some cases almost ephemeral features, and what might be deduced from this. One of the excavators, Keith Cooper, created some cup marks using a rounded cobble to peck the flat faces of locally available sandstone blocks of similar size to those found in the cairn (Figure 8). This showed that a cup mark of 5cm diameter and 1.5cm depth could be created in 30–40 minutes, with shallower cups or pecked surfaces achieved in shorter periods. This indicates that the assemblage of cup-marked stones found on the Fawdon Hill cairn could have been created by a small group of people within an hour or so, although the presence of a double-cup on one of the stones and possible subsidiary cups on others suggests the possibility of repeated efforts, perhaps during separate episodes or by different individuals as part of the same event. Another observation made during the production process relates to the rhythmical knocking sound made by the repeated stone-on-stone pecking – a sound that would have been amplified if carried out simultaneously by multiple individuals. As Keith himself commented, 'I know it sounds daft, but at times you need to strike harder on the surface, to pause, to move on quicker, a bit like a fiddler does with bowing...so much of the past is missing or lost as it is so often only imagined as being silent'.

While none of these observations and speculations conclusively indicate how, why or in what circumstances the stones were made and deposited, they widen our interpretive options and suggest that the act of creation

Figure 8. Keith Cooper producing a cup mark, and two close-up views of the resulting cup-marked stone, looking very much like the examples recovered from the cairn.

may have been a rather more modest act of piety, reverence or respect than it is sometimes tempting to believe. While cairns are often the only and frequently the most-prominent features of Bronze Age activity to survive in the landscape, it is wrong to assume that they were necessarily accorded greater or lesser significance than more transient features of wooden or earthen construction, just as the cup-marked stones within them may have been accorded a level of significance similar to a host of potential artefacts made of cloth, wood, leather and other organic materials. In this sense cup marks are just one of a potentially much wider range of artefacts used to convey emotions for purposes meaningful to their creators.

Meaning

What is the likely meaning of the cup marks and of their deposition in cairns? Beckensall (1983: 33) and Frodsham (this volume), amongst others, comment on the multiple interpretations of rock art, principally of complex panels incorporating cup-and-ring motifs on bedrock or large, non-portable slabs, noting that while much of this interpretation is of the distinctly speculative kind, such features appear to be sacred in that they are often associated with Early Bronze Age ritual activity. It barely needs stating, however, that simple cup marks, as opposed to more complex motifs and designs, can also derive from more utilitarian activities such as pounding or grinding. This seems likely to be the function of those cup mark-like hollows occasionally found on the undersides of saddle querns, as at Newgrange in Ireland and on a newly discovered example from Coquetdale, as well as the very small cup-marked cobblestones occasionally found on northern Iron Age sites, as recently at Harehaugh in Coquetdale and Mardon Hill near Branxton. In North America, where cup-marked stones are among the most common lithic remains of indigenous activity, they are sometimes referred to as 'anvil stones' and 'nutting stones' indicating two possible functions linked to tool and pigment preparation (Varner 2008).

However, where such stones are found in large numbers in association with funerary or other ceremonial sites, it seems reasonable to assume that they have been made and positioned with ritual intent. Speculation about a common origin of such symbols as expressions of some fundamental, universal human impulse, or reflection of the human neural system remains valid but is ultimately unprovable, even though supported by repetition in different contexts and parts of the

world. Related to this, and also unprovable, it remains distinctly possible that the same symbols were used continuously over the entire period of their use in northern Britain, gradually modified through use in changing contexts perhaps by a largely unquestioning population (Beckensall 1999: 34). Stan Beckensall's early suggestion (in 1983) that motifs based on cup marks may be abstractions of a fertility goddess, has given way to a more measured approach to interpretation in which he stresses that it must be supported by evidence and based on an understanding of how they fit into the landscape, achieved by understanding their settings and relationships with other cup-marked panels and contexts (Beckensall 1999: 34–36).

How such cup marks on parietal or portable stones should be viewed in relation to similar, presumably earlier features made on bedrock and funerary monuments, sometimes within more complex motifs in extensive designs, remains unclear. While there is broad acceptance that the earliest cup-and-ring marked panels were made on natural bedrock outcrops in the fourth millennium BC, and that some were later incorporated into Neolithic ceremonial monuments, specifically within burial monuments by the Early Bronze Age, there is little direct dating evidence for this sequence and even less to relate it to the phenomenon of cup marks found on portable stones incorporated in cairns. Our study dates the Fawdon Hill cairn to the later part of the Middle Bronze Age, by which time it is doubtful that the function or meaning of the act of creating the cup marks and depositing them in cairns remained unaltered from earlier periods. As noted above, part of this suggested sequence hypothesises that the creation of the earliest rock art on exposed slabs of natural bedrock later gave way to its incorporation in the hidden spaces of burial monuments, a phenomenon associated also with the positioning of cup-marked stones facing downwards within Early and Middle Bronze Age cairns such as at Fowberry and Weetwood Moor. However, if the Fawdon Hill cairn is representative, this sequence does not seem to continue into the later Bronze Age since several of the cup marks were found facing upwards, an observation also made by during recent survey work in North Tynedale where, at Ravensheugh Crags (Altogether Archaeology 2013; Bowyer n.d.), a probable kerbed cairn was observed with a cup-marked portable rock visible on the surface of its interior, and another with three cup-marked stones along its apparent edge; larger, non-portable cup-marked stones were reported in the same survey. Similar cup-marked outcrops or boulders, apparently associated with Early or Middle Bronze Age burial monuments, have been recorded at Lordenshaw, Coquetdale (Frodsham, this volume). These may have been created over considerable periods and it is not clear how their chronology relates to the portable tradition, which at Fawdon Hill is seen to extend well into the second half of the second millennium BC.

While a purely utilitarian function cannot be ruled out, it seems more likely that most or all the cup-marked stones at Fawdon Hill were created in a single event which itself represented the final act of use of the site, signalling either abandonment or sanctification, perhaps both. The same may well be true of other cairns containing numerous portable cup-marked stones. The making and positioning of cup-marked stones in cairns could be seen as a final phase in a continuous, non-utilitarian tradition extending from the Early Neolithic but, as discussed elsewhere, there are good reasons to suspect that the meaning and purposes of the acts of making, displaying and viewing them changed considerably, albeit perhaps gradually, through the Neolithic and Early Bronze Age. While the 'meaning' or 'purpose' of such cup marks is destined to remain beyond contemporary understanding, almost certainly representing different beliefs at different times, their meaning changing with context and location, it is tempting to view them as a Bronze Age echo of periods past, perhaps even a modest acknowledgment of continuity and universality. By the end of this phase, however, towards the end of the second millennium BC, the significance of careful positioning of cup marks within cairns, as observed in earlier cairns at Fowberry and elsewhere, appears to have reduced, although the act of making them remained important until such acts of communal respect or reverence no longer resulted in material traces on stone.

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References

Altogether Archaeology, 2013, Altogether Archaeology Fieldwork Module 8a. Ravensheugh Crags, Northumberland. Community Landscape Survey, viewed 23 April 2022, <https://altogetherarchaeology.org/reports.php>

Beckensall, S. 1983. *Northumberland's Prehistoric Rock Carvings*. Rothbury: Pendulum Publications.

Beckensall, S. 1999. *British Prehistoric Rock Art*. Tempus: Stroud.

Beckensall, S. 2001. *British Prehistoric Rock Art*. Tempus: Stroud.

Bowyer, P. n.d. Rock Art In Tynedale: Exploration of an enigma; The case of Ravensheugh Crags. Unpublished report for NOWTAG (North of the Wall Tynedale Archaeology Group), viewed 19 April 2022, <http://tynedalearchaeology.org.uk/raveheughcraggs.html>

Brown, P. and B. Brown. 2008. *Prehistoric Rock Art in the Northern Dales*. Stroud: Tempus.

Brown, P.M. and G. Chappell. 2005. *Prehistoric Rock Art in the North York Moors.* Stroud: Tempus.

Carlton, R.J. 2012. Archaeological Excavations at Harehaugh hill-fort in 2002. *Archaeologia Aeliana* (fifth series) 40: 85–115.

Fowler, C. 2013. *The Emergent Past: A Relational Realist Archaeology of Early Bronze Age Mortuary Practices*. Oxford: Oxford University Press.

Frodsham, P. 2006. *In the Valley of the Sacred Mountain: An Introduction to Prehistoric Upper Coquetdale 100 Years After David Dippie Dixon*. Newcastle upon Tyne: Northern Heritage.

Frodsham, P. 2020. Redesdale Lidar Landscapes. Project Report. Unpublished report for the Revitalising Redesdale Landscape Partnership and Northumberland National Park Authority, viewed 24 May 2022, <https://www.revitalisingredesdale.org.uk/wp-content/uploads/2020/06/Revitalising-Redesdale-Lidar-Landscapes-Project-Report_FINAL.pdf>.

Gates, T. 1979. Field survey in Northumberland, unpublished report for English Heritage.

Hewitt, I. and S. Beckensall. 1996. The excavation of cairns at Blawearie, Old Bewick, Northumberland. *Proceedings of the Prehistoric Society* 62: 255–274.

Jobey, G. 1968. Excavations of cairns at Chatton Sandyford, Northumberland. *Archaeologia Aeliana* (fourth series) 46: 5–50.

Petts, D. and C. Gerrard. 2006. *Shared Visions: The North-East Regional Research Framework for the Historic Environment.* Durham County Council.

Varner, G.R. 2008. *Portals to Other Realms: Cup-marked Stones and Prehistoric Rock Carvings*. Raleigh: Lulu Press.

Vyner, B.E. 1984. The Excavation of a Neolithic Cairn at Street House, Loftus, Cleveland. *Proceedings of the Prehistoric Society* 50: 151–195.

Waddington, C., J. Godfrey and J. Bell. 1998. A chambered tomb on Dour Hill, Northumberland. A detailed survey and re-assessment of the Dour Hill 'long cairn'. *Archaeologia Aeliana* (fifth series) 26: 1–15.

Walton, R.H. 1962–3. The Otterburn Story: Address delivered to the Berwickshire Naturalists Club at Berwick, 11th October 1961. *Proceedings of the Berwickshire Naturalists Club* XXXV(III): 217–255.

9

Blawearie: a cairnfield excavation in a rock art landscape

Iain Hewitt and Irene Hewitt

Introduction

In a research and writing career that embraces diverse subject material, one might justifiably claim that Stan Beckensall is the epitome of the Renaissance mind. Stan's publications include books and papers on literature, history, and archaeology, but it is irrefutable that he is best-known for his peerless contribution to the discovery, observation and recording of the prehistoric rock art of his adopted home county of Northumberland, and beyond. Stan's outputs in this research domain exude enthusiasm, his communication skills having been honed by his professional role as a teacher in both secondary and higher education. This, combined with an innate love of learning, has instilled a willingness to grapple with the many uncertainties and contradictions that confront the student of rock art in central and northern Britain. Notably, Stan is intrigued by the chronology of British rock motifs and their possible association with funerary monuments of the Bronze Age (Beckensall and Frodsham 1998).

The design and delivery of adult education programmes has been part of Stan's extensive repertoire, often encompassing walks with talks as a core element of the knowledge-enhancement experience for all those who have participated in his courses. These perambulations of the Northumberland landscape are distinguished by a vocabulary that evokes an atmosphere of the mystery of the past and this inspires an insatiable urge to know more. These qualities are central to the many rock art projects that Stan has worked upon, but it is especially true with regard to a certain field research initiative at a site known as Blawearie in the Fell Sandstone uplands of the county at Old Bewick, in the parish of Eglingham.

Blawearie cairn and its rock art context: the genesis of a project

The Blawearie excavation initiative was a product of the Beckensall skill-set as outlined above. Throughout the 1980s, Stan's teaching and communication talents were employed in the running of week-long summer field courses for adults at the Grade 1 listed Ford Castle, which then functioned as a residential teachers' centre of Northumberland County Council. The present authors were participants in 1982 and 1983 and shared with Stan a teaching background in the middle school sector, and a fascination for landscape studies. These were the bonding agents that were catalysed by field excursions that included visits to Blawearie, a derelict shepherd's house of mid-nineteenth century origin (NU 0845 2238; Figure 1), which became a source of mutual enchantment. The gravitational pull of Blawearie can be explained by its remoteness and its landscape context: it is a site that can engender obsession. The nearest settlement is Old Bewick which lies in the valley of a canalised stretch of the River Breamish at 98m asl. Passmore and Waddington describe this area as the Till Block in the Tweed-Till catchment (2009: 137–142). From the former Old Bewick Post Office (NU 06655 21540), a bridle path leads uphill north-eastwards for a distance of around 1700m to the site of the shepherd's house at 209m asl (Figure 2). It is a challenging climb over rough, often boggy, ground. Sheep populate the land, and for the uninitiated, an online visit (Blamhof 2013) is recommended for familiarisation with the characteristics of the terrain.

The walk to Blawearie is rewarding. The abandoned house commands attention and to the west offers views across the Breamish valley to the Cheviot Hills beyond. Sunsets can be spectacular but, as the Blawearie name suggests, the experience is one of incessant wind buffeting. The house stands on a rocky knoll, and an atmosphere created by desertion of the building is accentuated by the unsuspected rock-cut gardens and enclosures that were the creation of past generations of tenants. The last of these former occupants was in residence when journalist Paul Brown visited in the 1940s and his illustrated account is an intriguing read (Brown 1946: 134–137).

Blawearie Cairn is situated 300m west south-west of the eponymous house and upon a separate knoll at 198m asl (NU 0817 2229). It was excavated by the antiquarian cleric William Greenwell in 1865 and listed by him as 'CC, Eglingham' (Greenwell 1877: 418–421). The cairn is a kerbed monument of approximately 11m diameter, the precise characteristics of which were disguised by Greenwell's intervention and other unrecorded disturbances. In the early 1980s, three cists were visible and Greenwell mentioned the location of a previously opened fourth cist at the centre of the monument. At some point in its prehistoric past the cairn had a funerary purpose. For the rock art enthusiast, interest

Figure 1. Blawearie shepherd's house from the west south-west, 1975. Photo: Stan Beckensall.

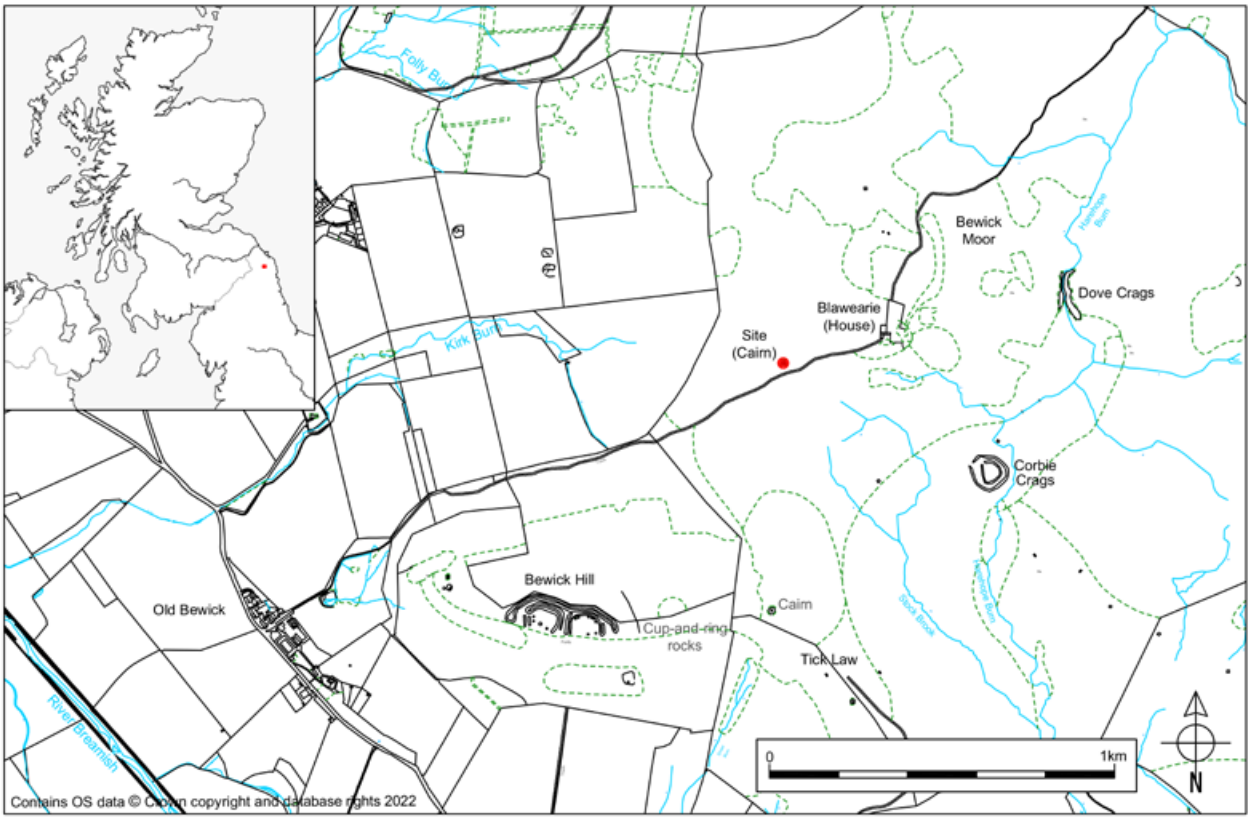

Figure 2. Location plan of Blawearie and associated landscape features by Jonathan Milward.

Figure 3. The principal Bewick Hill cup-and-ring site (H00581). Scale: 1.0m. Photo: Iain Hewitt for the HELICS rock art database.

in Blawearie is amplified by the presence of 'decorated' rocks some 850m south south-west, on the east side of the double enclosure hilltop settlement of Bewick Hill (NU 075 216) at around 220m asl (Gates and Deegan 2009: 151, fig. 4.17). The complex rock art design shown as Figure 3 has been worked onto a large glacial erratic boulder of Fell Sandstone. The proximity of this rock art group prompted questions regarding a possible link with the prehistoric burial practices that took place at the cairn. Instances of the inclusion of cup-and-ring marked stones in monuments associated with Bronze Age disposal of the dead have been listed and discussed by Beckensall and Frodsham (1998). Greenwell noted no rock art at Blawearie Cairn, but his excavation was not exhaustive, leaving scope for speculation about this and other structural and chronological matters.

As acquaintance blossomed into friendship, we shared with Stan a number of visits to Blawearie and were smitten by the magic of the place. The outcome of subsequent discussions was the drafting of a proposal to excavate Blawearie Cairn and this was submitted to English Heritage. The document included an aim to test the validity of the link between cup-and-ring motifs and Bronze Age inhumation monuments with specific reference to the cairn. The application was approved, and preparation of the detail of the project plan began, with the field excavation programme scheduled to commence in the summer of 1984.

Objectives of this paper

It is not intended that this contribution should constitute a slavish reiteration of the findings of the Blawearie Cairn excavation project. This took place over five one-week summer seasons with an additional week in the Autumn of 1986. On-site work was completed in 1988. An academic report was published in 1996 (Hewitt and Beckensall) and this is the recommended source for details of the archaeological findings. In tandem with the excavation aims as specified in the published paper, the teaching background of the project team determined that it should provide an opportunity for high school students to become involved with the techniques, strategies, and transferable skills development that archaeology can provide. Comment upon this aspect of the Blawearie excavation programme was not included in the final excavation report, which offered no room for such diversification. To redress this imbalance, the aim of this chapter is to expand the scope of the published 1996 paper in line with the following objectives:

1. to provide an account of the Blawearie project as a structured archaeological field school initiative;
2. to examine and discuss the significance of the archaeological evidence from the site with regard to the potential link between prehistoric rock art and Bronze Age funerary practices in northern Britain;
3. to engage in a reflective critique of the project with reference to its limitations and impact.

The field school

The decision to excavate Blawearie Cairn using a team of young people from local high schools presented the three-strong project management team with a challenge. From the outset it was envisaged that a balanced on-site curriculum would need to be designed that would include equality of opportunity for participation in a range of problem-solving tasks, acquisition of manual excavation techniques, and social skills development. It was imperative from the outset that the Northumberland County Council Education Authority should be a principal stakeholder. Recruitment to the annual field school events was on a voluntary basis, but the process needed to be seen to be fair including matters relating to accessibility taking into consideration individual abilities and disabilities. This was a formidable hurdle because Blawearie is a remote site, presenting constraints that had to be overcome.

Project management

In response to the accessibility dilemma, the field school was granted the use of a residential base at the Lucker Field Centre, 12 miles north-east of the excavation site. Led by a Deputy Head Community, the Centre became the hub for a daily minibus commute to Old Bewick. Meals and scope for social interaction were part of the available package. Applicants were self-funded with the project appealing to potential university students and participants in the Duke of Edinburgh's Gold Award Scheme, amongst others (Beckensall 1987: 39–40). Field Centre accommodation capacity limited the number of places available each year, but indicatively there were eight students in the first season of the project drawn from four high schools. In the final year, 1988, the student excavation team was nine in total which was close to the optimum number for a monument of just 11m diameter. During the summer season of 1986, a one-off involvement by an international conservation group inflated the workforce beyond the capacity of the cairn and it became necessary to extend the reach of the fieldwork to the rock art motifs on Bewick Hill where non-intrusive survey work was undertaken.

Aside from the infrastructure provided by the local authority, assistance in kind was forthcoming from the landowner, whose support for the investigation was invaluable. An international energy company contributed to costs. Photography was enhanced courtesy of RAF Boulmer from where helicopters on moorland manoeuvres occasionally landed to borrow project cameras for the purpose of taking air photographs for the archive. A VHS video record was also kept (Figure 4). The British Museum funded the excavation and conservation of an urned cremation discovered during the 1986 season, and the University of Durham provided expertise and facilities for post-excavation analysis of samples collected on site.

Figure 4. R.A.F. Boulmer helicopter visit recorded on VHS-format video by Stan Beckensall (standing closest to centre). Photo: Irene Hewitt.

No rough terrain vehicle was available to the field project until the 1987 season, therefore access to site was accomplished by an uphill walk from Old Bewick. Essential equipment such as manual digging tools and survey apparatus needed to be stored in a vacant cottage in the village and carried to site each working day. Limited tent accommodation was erected, but this was for the purpose of weather shelter only: risk assessment indicated that overnight stays on the moor constituted a hazard. For enhanced site safety in those pre-mobile phone days, Citizens' Band Radio handsets were available during the final three years on site. A mobile, secure site office was added to the amenities in 1987.

Teaching and learning

At the outset of the planning process, it was determined that all participants in the Blawearie Cairn project should benefit from as broad an experience as possible, the focus being on individual or small group teaching. Each day began and ended with a whole-group briefing with impromptu team talks taking place as occasion demanded. To achieve optimum value from the course for each person in the group, and in the best interest of the archaeology of the cairn, it was essential to ensure that everyone had clear daily, sometimes hourly, targets. This instilled self-confidence in each participant's ability to successfully execute tasks, follow procedures and understand objectives. Advice and guidance on request had to be available at all times.

Induction to, and development of, manual excavation techniques was an expectation of all members of the project team, both students and teacher-directors. Other activities available included levelling, drawing plans and sections, entering data on recording *proformae* (e.g., context records), linear measurement, finds identification, photography using an appropriate scale, sample collection, and the reception of site visitors (Figure 5). Respect for the environment of the cairn was an important expectation given that it provided a habitat for a number of moorland species.

Progress, constraints and solutions

The scope for teaching archaeological skills, techniques, and concepts was determined by the strategy employed for any given season together with the nature and demands of the site. At the outset (1984), Blawearie Cairn was largely

obscured by a dense cover of well-rooted moorland grasses and heather. This vegetation required careful, systematic and sympathetic clearance to reveal the shape and surface features of the monument. It was tough physical work, but in preparation for the following year, a grid was set out within a defined excavation area and an initial site plan was drawn. These activities provided teaching and learning opportunities. Occasional finds generated enthusiasm, providing team members with material for briefing journalists and the reception of other visitors to the cairn.

Season two equated to an archaeological evaluation whereby sample areas of the cairn were investigated in more detail. Proceedings were much interrupted by rain, but new features were identified, and the site plan was correspondingly enhanced and extended. Limitations to the range of equipment and facilities available were exposed, and with the project poised to move into research mode in 1986, there was much forward planning to be done. The change in emphasis from evaluation to research project demanded a larger human resource and greater sophistication of site infrastructure.

Throughout the course of the first two seasons, teaching situations had involved students in discussion regarding problems encountered during the discharge of their responsibilities. For example, with reference to the drawing of features, two concerns were identified.

> *Problem 1* Accurate recording of the plethora of cobblestones that comprised the greater part of the cairn was difficult to achieve with conventional drawing frames because the uneven surfaces of boulder clusters made it impossible to stabilise this equipment, therefore wasting time and forfeiting accuracy.
>
> *Problem 2* When drawing sections through negative features such as the sockets of displaced kerbstones, base lines tended to sag, particularly when wind gusts cut across the site, which was most of the time.

In response to these issues, the following solutions were forthcoming.

> *Solution 1* The troublesome drawing frame was redesigned. Two 1.0m × 1.0m models were produced, each equipped with four telescopic legs with spirit levels set into the two horizontal axes of the frame. Thus, the frame could be levelled above any stone cluster in conformity with the site grid and, if desired, levelled in accord with site datum. The frames were designed to disassemble for movement to and from site. Two 0.5m × 0.5m drawing frames were produced for use in plotting features in confined spaces (Figure 6).
>
> *Solution 2* The drawing of sections through negative features whilst avoiding the trauma of sagging datum lines was a problem that had been encountered by Peter Reynolds, Director of the Butser Ancient Farm Research Project, Hampshire. In a chapter devoted to data recovery, Reynolds alludes to what he called a 'protophit', described as a measuring instrument with a horizontal bar to which is fitted a sliding chock that acts as a guide for a vertical calibrated rod for depth measurement (1979: 89–91). Though not commercially available, illustrations within Reynold's text made it possible to construct a version of the protophit for use at Blawearie, albeit with a modified recording system (Figure 7). Excavators found it to be easy to use, results improved, and valuable time was saved.

Figure 5. The excavation team at work (1988) including levelling using a dumpy level and calibrated staff. View from the photographic platform. Photo: Irene Hewitt.

The range of on-site surveying techniques employed was extended in 1986 with the loan of a plane table.

Assessment and evaluation

Assessment of progress and achievement was formative. Each team member was encouraged to keep a record of their personal involvement in accordance with their individual targets and aspirations. There were no overarching assessment criteria.

Press cuttings record enthusiastic feedback from students, at least two of whom went on to read archaeology at universities in Scotland and England. Significantly, the experience of working with sixth-form students inspired the

Figure 6. Drawing a plan using the redesigned drawing frame made for the Blawearie project by Ken Bone. Photo: Irene Hewitt.

Figure 7. Section drawing using the 'protophit'. Photo: Irene Hewitt.

contribution of Bournemouth University to a project funded by the Higher Education Funding Council for England entitled 'Inclusive, Accessible Archaeology' in partnership with the University of Reading. The publications generated by this collaboration were disseminated across the higher education sector and included the Archaeological Skills Self-Evaluation Toolkit (ASSET) which also had an online presence (Phillips *et al.* 2007). The educational component of the Blawearie Cairn project had a long reach.

Blawearie: the archaeology of rock art and communal memory

The *raison d'etre* for the Blawearie project was to test the validity of the supposed association of rock art with Bronze Age funerary monuments. This aim was documented in the excavation report for the site (Hewitt and Beckensall 1996). Specifically, the term 'rock art' alludes to the prehistoric style that is manifest in Northumberland: cups, rings, and serpentine grooves such as those on the eastern slopes of Bewick Hill (Figure 3). A reader of the report might be puzzled to note that it is devoid of comment on this key aim, an omission that, on reflection, is perhaps explained by oversight and the fact that no examples of rock art were observed in the cairn or in any of its neighbouring satellite cairns to the north north-east. The discussion that follows is intended to rectify this deficiency.

The development of the monument

Excavation revealed five phases in the development of the cairn, none of which has absolute dates. Relative dates were achieved by the identification of distinct chronological boundaries within the archaeological record and the typology of finds that were found in association with each phase. Despite a diligent recovery strategy used throughout the field project, no suitable samples were available for radiocarbon dating.

Phases 1 and 2

Phase 1 comprised pre-cairn features including traces of the roots of a tree, but in Phase 2 the perimeter of the cairn was defined by a circle of contiguous kerbstones. It was noted that the adjoining sides of some kerbstones had been pecked or stippled with a hard, sharp tool to ensure a tight fit with a neighbour (Figure 8). Another characteristic of the kerbstones is that their tops represent a mix of two shapes, some being flat whilst others terminated in a point, or apex (Figure 9). This variation in kerbstone form seems to be deliberate and must have required careful selection of the component stones, the precise source of which was not established. The rock-cut gardens of Blawearie House offer a starting point for specialist petrological analysis, although this was not undertaken during the project.

Manual shaping of the kerbstones is likely to have been needed in most cases. It has been estimated that the completed kerb circle comprised close to 40 stones, but just 24 remained in their original locations. It is therefore impossible to speculate upon the original numbers and arrangement of the two kerbstone shape types; it is conceivable that an astro-calendrical function was sought by the kerb builders although this hypothesis remains untested. Throughout the time

Figure 8. Excavation 1988: cobblestones from the wall of the cairn have been removed and systematically grouped for examination and reinstatement. Photo: Stan Beckensall courtesy of RAF Boulmer.

Figure 9. A kerbstone on the east side of the cairn is an example of those that were stipple-tooled to form a tight fit with a neighbour. Photo: Irene Hewitt.

that the kerb circle was intact, the cairn seems not to have been used for funerary practices.

Phase 3 was broadly contemporary with Phase 2. It entailed the setting down of a cobblestone wall against the standing kerb line both inside and out. The purpose of the wall was probably to prevent the kerbstones from tilting out of line. Despite Greenwell's nineteenth-century examination of the cairn, much of the internal cobbling remained in place in 1984. Throughout the course of the 1980s fieldwork, each component cobblestone was systematically lifted and checked for signs of cup marks, but none were found (Figure 10).

Phase 4 represents a transformative period in the development of the cairn because at this time the monument was used for a mix of burials within cists and cremation deposits. An Enlarged Food Vessel of Bronze Age date was the repository for one cremation, thus providing an indicative date for this phase. The cists within the cairn numbered six in total. Of these, three were unearthed by Greenwell who also reported a fourth example (previously disturbed) that had existed at the centre of the monument. With the exception of the central cist, all these stone-lined burial chambers survived for re-examination. Two further cists were discovered during the 1984–88 excavations, and what might be counted as a seventh example was found within Satellite Cairn 1, 3.5m to the north north-east.

Each of the extant cists was subjected to close archaeological scrutiny which revealed that their capstones had been plundered from the kerbed perimeter of the cairn. The covers of Cists A and C (Greenwell's 1 and 3) were both former kerbstones with apex-tops. In the case of the Cist A capstone, notches had been cut close to what would have been its base, suggesting that the stone had been rope-dragged from its original place in the kerb of the cairn. The orthostats of the cists are likely to have come from the same source. The sum of the component cist stones, taking account of broken examples, indicated that 14 were

Figure 10. In the foreground, three tilted kerbstones in the western arc of the cairn represent the mix of flat- and apex-top types. Immediately beyond, the apex-topped Cist C capstone is a displaced kerbstone. Blawearie House is on the distant horizon. Photo: Irene Hewitt.

re-purposed kerbstones, a figure that is close to the number of stones that were missing from the perimeter of the monument.

Whatever its purpose or significance to the local upland communities of Phases 2 and 3, those who used the cairn in Phase 4 were using it in a way that was different to that of their forebears. A major shift in culture and philosophy is implied by this revision in outlook and practice. If any of the cist stones had been inscribed with rock motifs, then it follows that Blawearie would attract comparison with sites such as Fulforth Farm, Witton Gilbert, County Durham. This is a presumed cairn with a cist, the capstone and an orthostat of which were elaborately decorated with cup, ring and groove designs (Baker and Wright 2009; Beckensall and Frodsham 1998: 53–60).

It is not clear if the Fulforth rock art panels were found in their primary location or if they had been introduced from elsewhere as cist-construction components. In the absence of contrary evidence, the striking difference between the Fulforth Farm cist stones and those from Blawearie is the absence of rock art in the latter case. This simplistic observation might be misleading: the Blawearie cists were lacking in decoration, but they had been tooled and shaped. This might have been regarded as significant by the Phase 4 cist builders and the stones were selected for funerary rituals for that reason. It is also possible that importance was accorded to the original location of the stones in the cairn's kerb and the function that they served in that position. These observations should be noted in any re-appraisal of similar sites. No attempt had been made to introduce stones from the decorated rock outcrops east of Bewick Hill, 850m to the south-west.

Phase 5 of Blawearie Cairn is characterised by at least one instance of early medieval artefact deposition. In 1985, a blue glass melon bead was found outside of, but close to, the hitherto unexcavated Cist D. Beads of this type have been attributed to the ninth and tenth centuries AD (Hewitt and Beckensall 1996: 267) and this discovery might attest to the continued recognition of the cairn as a place of cultural importance at this time.

Nine amber beads were found in a loose arrangement in the southern quadrant of the cairn between Cist A and the site of the lost central cist referred to by Greenwell. The beads were perforated for hanging as a necklace or bracelet; the hole through the largest bead had been enlarged by long-term wear. It is conceivable that these amber beads were deposited in one of the nearby cists from which they were removed by the activities of antiquarians. Working

on this assumption, the amber beads would date to the Bronze Age. Alternatively, the spatial coherence of these beads as a group within their context, suggests that they could have been deposited as an heirloom jewellery item, an event that could also belong to Phase 5.

Discussion

Blawearie was a project engendered by obsession, motivated by educational objectives, and focused upon archaeology. It did not produce evidence to verify a link between funerary monuments of the Bronze Age and the phenomenon of cup-and-ring art, but the results of the investigation did demonstrate a complex process of constructional development during which succeeding generations identified with the site whilst changing their perceptions of its meaning and function. Whilst certainty is elusive, the first embodiment of the site was naturalistic: a low knoll upon which grew a tree, its root matrix being traceable in the pre-cairn soils. This tree may have had qualities that inspired veneration, a hypothesis suggested by the apparent need to circumscribe it with a kerb of artificially shaped stones. This development effectively superimposed a monument of human construction upon a natural feature of unknown significance.

The Phase 4 modification of the kerb circle as a focus for burial and cremation involved the acquisition of the monument's Phase 2 kerbstones and their reuse in the construction of cists. The acid soils of the Bewick Fell Sandstone moorland dissolve uncremated bone. Consequently, it was impossible to determine or estimate the number of individuals represented by the cist structures which could have been opened and resealed numerous times in accordance with need and/or customary practices. Analysis of samples indicated that the urned cremation (context 089) contained the remains of two adult males, whilst the un-urned cremation material included one adult and a child of about five years. Questions arise regarding the criteria for interment at Blawearie and other similar sites. Family or dynastic qualification might have been a requirement, but the fact that the cairn evolved into a small cairnfield with 'satellite' cairns lying outside of, but close to its northern arc, suggests the need for an expansion of funerary space. Enlargement of the cairn to conceal an un-urned cremation at its outer south-west perimeter is another indicator of pressure on available ritual space. On occasion, grave goods were provided, but organic tokens such as food offerings were not scientifically traceable. The deposition of the melon bead of early medieval date in Phase 5 suggests that the cairn continued to be the subject of veneration several millennia after its original construction. Such late deposits have been recognised in the archaeology of other sites, including Money Mound, near Horsham, West Sussex, excavated by Stan (Beckensall 1967: 13–30).

The 1984–8 work at Blawearie suggests a new avenue of enquiry into the relationship between funerary monuments of the Bronze Age and the stones that were used to construct them, whether decorated or not. In the light of the evidence from the cairn, it is arguable that the time has come for a reappraisal of other similar sites in the north of Britain and western Europe.

Acknowledgements

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References

Baker, F. and J. Wright. 2009. Excavation of a Late Neolithic burial site at Fulforth Farm, Witton Gilbert, County Durham. *Durham Archaeological Journal* 18: 1–21.

Beckensall, S.G. 1967. The excavation of Money Mound. *Sussex Archaeological Collections* 105: 13–36.

Beckensall, S. 1987. Blawearie: excavation of a Bronze Age cairn. *Archaeology Today* 8(4): 39–45.

Beckensall, S. and P. Frodsham. 1998. Questions of chronology: the case for Bronze Age rock art in Northern England. *Northern Archaeology* 15/16: 51–69.

Blamhof, M., 2013, Northumberland, A Cairn, Blawearie, The Cateran Hole and A Poem, viewed 26.12.2021, <https://www.youtube.com/watch?v=BPwEFBUo0Nk>.

Brown, P. 1946. *The Fourth Friday Book of North Country Sketches.* Newcastle upon Tyne: North East Publications.

Gates, T. and A. Deegan. 2009. Monuments in the landscape: the aerial and photographic resource, in D.G. Passmore and C. Managing (eds) *Archaeological Landscapes in Northumberland: Till-Tweed Studies Volume 1*: 125–171. Oxford: Oxbow Books.

Greenwell, W. 1877. *British Barrows. A Record of the Examination of Sepulchral Mounds in Various Parts of England.* Oxford: Clarendon Press.

Hewitt, I. and S. Beckensall. 1996. The excavations of cairns at Blawearie, Old Bewick, Northumberland. *Proceedings of the Prehistoric Society* 62: 255–274.

Passmore, D.G. and C. Waddington. 2009. *Managing Archaeological Landscapes in Northumberland. Till-Tweed Studies, Volume 1.* Oxford: Oxbow Books.

Phillips, T., R. Gilchrist, I. Hewitt, S. Le Scouiller, D. Booy and G. Cook. 2007. *Inclusive, Accessible Archaeology.* Higher Education Funding Council for England: Guides for Teaching and Learning in Archaeology No. 5.

Reynolds, P.J. 1979. *Iron Age Farm. The Butser Experiment.* London: The British Museum.

10

The strange story of the Swastika Stone on Ilkley Moor

Keith Boughey

Introduction: the problem of rock art

What do prehistoric cup-and-ring carvings *mean*, or rather what did they mean to the people for whom they were carved? This is rightly taken to be the question at the heart of any study of prehistoric rock art. If we believe the need to communicate is fundamental to human societies, then it is legitimate to regard prehistoric rock art as a type of language, complete with its own vocabulary of symbols and grammar determining how those symbols are to be used and given meaning. The immediate problem, however, is that we lack any kind of dictionary with which to translate them. If the motifs are believed to be symbols, then what is it they symbolise?

'What do the carvings mean?' is an easy question to ask but a much more difficult one to answer. This is not only because of the huge span of time since the Late Neolithic/Early Bronze Age when it is believed they were carved and the lack of any intelligible record such as writing, but also because the question itself is ambiguous. What sort of evidence are we to consider? The motifs themselves? The location of the rock in the landscape? That signs of a settlement or enclosure are nearby? That the rock is close to a stream, trackway or source of metal ore? That the site commands a wide view? And how then do we decide what is due to simple coincidence and what is culturally significant?

Inevitably, the various theories proposed to 'explain' the carvings tend to say more about the worldviews held by those proffering them than they do about the carvings themselves, and still less about the possible motives of people in the Late Neolithic/Early Bronze Age. Because of the prevailing culture to which we each belong, we tend to favour the sorts of explanations with which we feel most comfortable and that reinforce, rather than challenge, the sort of world we believe in. However hard we try, we can only look upon earlier societies through twenty-first century eyes. Archaeological theories, like all theories, are essentially artificial intellectual constructs designed specifically for the purposes of explanation. We do not start from a blank canvas: theories have built into them from the start a system of concepts and value-judgements that we unavoidably bring to everything we perceive. Terms such as 'sacred', 'secular' and 'ritual' are not neutral value-free terms: each one is linked to our current cultural experience. If an explanation does not make sense in terms of our agreed common experience, it tends to be rejected: in fact, it will not be accepted as an explanation at all. It has to fit in with expected norms.

Ronald Morris, a pioneering amateur who researched Scottish prehistoric rock art sites throughout the 1960s and 70s (Brophy, this volume), drew up a list of over a hundred theories he had come across in the course of his work (Morris 1979: 16–28). For example, authors have suggested the cup-and-ring could symbolise the sun (e.g., Cowling 1946: 83) while others have suggested, following the Abbé Breuil (1934), that a Late Neolithic tradition of rock carving linked to an earth-goddess cult could possibly be one of the immediate antecedents of cup-and-ring designs (Cowling 1946: 82–84). On the other hand, it has been suggested that the designs are based on entoptic images (i.e., images directly produced by activity within the eye), such as those seen by shamans in their trances (Beckensall 2005: 135–136; Bradley 1997: 52–57; Lewis-Williams and Dowson 1988, 1993; Patton 1990), though this idea has effectively been challenged by, among others, Bahn (2009).

In common with other forms of archaeological evidence, such as monuments, burials and enclosures, rock art data only acquires meaning when it is given a context. So, what is the context for rock art? It can be considered as something essentially static, whose remains lie out there in the immediate landscape. It can be artefacts associated with the carving in time and space. But it can be something altogether more dynamic if we consider that the act of carving itself was every bit as important, possibly more so, than the finished product. In other words, the proper study of archaeology is not the endless construction of typologies of flints, vessels and weapons, but the recreation of behaviour, of motive, intention and purpose. And this is as true for rock art as for any part of the prehistoric past. To recall the famous dictum of Mortimer Wheeler, one of the most celebrated archaeologists of the twentieth century—himself inspired by the rock carvings on Ilkley Moor close to his early childhood home of Saltaire near Bradford—we must remember that what we are investigating in archaeology is not *things*, but *people* (Wheeler 1954: v).

But the problem of what constitutes a 'correct' interpretation of rock art arises even if we just confine ourselves to a study of the motifs. Palaeolithic period art such as the animal and human figures at Altamira in Spain and Lascaux in France appear to depict recognisable scenes such as hunting. However, it is believed that they were not made for simple representational purposes but were associated in some way with ritual or magic: that both the act of painting and the finished figures themselves were designed to empower Palaeolithic hunters and were not merely depictions of the animals of the intended hunt, but an expression of the hunter's relationship with them, carrying with them a strong element of imprecation, hopefully ensuring success in the hunt to come. Cave paintings were not just narratives of Palaeolithic life: they were intimately bound up with the hunt and a powerful expression of the hunter's relationship with the natural world (Mithen 1998: 188, 196–197). The same considerations may apply to UK rock carvings, but unlike these more familiar forms of prehistoric rock art, cup-and-ring marks are abstract and do not include readily identifiable subjects. It is reasonably obvious that *different* sets of motifs belonging to different cultures or periods most probably represent different sets of ideas or ways of looking at the world, but they may not. And to confound the problem still further, modern ethnographic studies have shown that even when the *same* sets of motifs are used by different sets of people, they often carry different meanings.

The case of the Swastika Stone, Ilkley

An excellent example of this multiplicity of meanings, which can embrace radically different, even contradictory, outlooks on the world is the well-known symbol of the swastika (Cooper 1978; Mithen 1998: 178–179), itself the subject of considerable discussion in the archaeological literature (Anati 1976; Freed and Freed 1980; Holmberg 1848; Jacobsthal 1938; Schliemann 1874: 103, 1878: 259, figs. 383, 385, 362, No. 540, 1880: 45–54). It is the principal motif on the eponymous 'Swastika Stone' on Ilkley Moor (Ilkley Archaeology Group panel number 217: SE 09554 46968), with more references in the archaeological literature than any other single rock art site in the region (Boughey and Vickerman 2003: 71–72). The stone is identified by name on most OS maps of the area, including the popular 'Explorer' 1:25 000 series (Explorer series No. 297) and even has its own entry in the online encyclopaedia, Wikipedia (http://en.wikipedia.org/wiki/Swastika_Stone).

The Swastika Stone sits on the 280m contour on Woodhouse Crag, an outcrop of gritstone on the extreme northern flank of Ilkley Moor commanding an extensive view of the Wharfe valley to the north and west (Figures 1 and 2). It has been enclosed by railings since 1913, both for its own protection and that of visitors to the precipitous site. The rock is inscribed with a distinctive clockwise-curving quadrilobate motif, enclosing cups at each end and between the lobes, and a hooked tail surrounding a further cup (Figure 3). It was Romilly Allen, in the first ever published account of the cup-and-ring marked rocks of Ilkley Moor, who first described the motif as a 'swastica' (Allen 1879: 21) (the earliest example of the use of the term 'swastika' in an English language text dates from 1871). Again described as a 'swastika', it was included in a set of drawings of 14 of the more prominent carved rocks of the district prepared by Call in 1880 and presented to the newly formed Ilkley Museum in 1892 under the pseudonym, J. Thornton Dale (1880). Several years later, in relation to what he referred to as the 'Woodhouse Crag Stone', the Ilkley prehistorian Horsfall Turner discussed what he believed to be both the Hindu and Celtic roots of the 'swastica' or 'fylfot' (Horsfall Turner 1885: lxxxix–xc). But the name 'Swastika Stone' was probably not given to the rock until the twentieth century (it was not officially listed until 1923) and possibly as late as the 1940s. The OS Map of 1936 (186 NW) shows a 'cup-and-ring marked

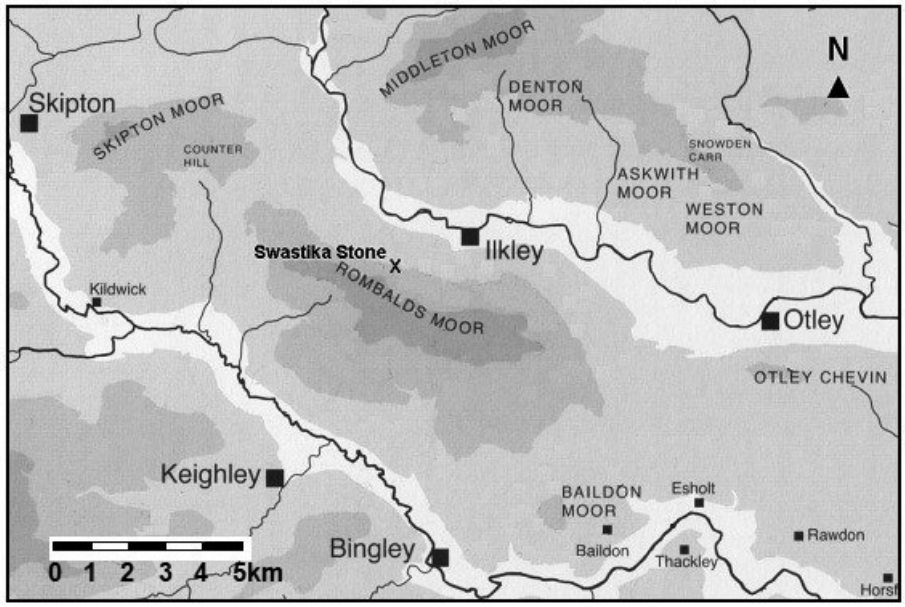


Figure 1. Location of Swastika Stone, Rombalds Moor, W. Yorks.

Figure 2. The 'Swastika Stone' enclosure (SE 09554 46968), Woodhouse Crag, Ilkley Moor, showing the Wharfe valley beyond to the north.

rock' on Woodhouse Crag, but does not refer to it by name, although the names of other prominent rocks (e.g., Neb Stone, Panorama Stone, Pancake Stone) are indicated. The first confirmed published account of the name would seem to be by Cowling who refers to it as the 'famous Swastika Stone' (Cowling 1946: pls. X, 91, figs. 29, 92).

Other Atlantico-Mediterranean 'Swastika Stones'

The motif is virtually identical to the 'rosa camunica' or 'Camunian rose' familiar from rock carvings in the sub-Alpine district of Valcamonica in Lombardy, north-east Italy – something recognised as long ago as 1938 by the scholar of the Celto-Roman period, Jacobstahl (1938). For example, at Carpene di Sellero (Figure 4) and Giadighe (Figure 5) there are the same four swirling arms radiating from the centre, and the same arrangement of cups: one at the centre, one at each end of the four limbs, and a further four placed in the crook of each arm.

There are no less than 84 recorded examples of Camunian rose rock carvings, all dated on stylistic grounds to the local Iron Age of the final six centuries BC (de Marinis 1988; 1992; Fossati 1991; La Guardia 1991), as are two further Alpine examples at Altes Gebirge in the Alto Adige, northern Italy and another at Salvan in the canton of Valais, in south-west Switzerland (Bevan 2006: 138–139).

The Ilkley motif is also remarkably similar to two carvings (Figure 6) claimed to be from much the same period near Hovenäs in the district of Askum, Bohuslän – an area of south-west Sweden well known for its prehistoric rock art (Bengtsson 2002: figs. 76.2 and 80; Fredsö 1972; Holmberg 1848), although Fredsjö (1972) believes a much later Iron Age date is likely for the Swedish figures, possibly as late as AD 500.

A further example of an Ilkley-like carving was brought to the author's attention in 2012. It had been overlooked within prehistoric rock art narratives as it emerged from a separate tradition of scholarship and research – the Roman period. Between 2008 and 2011, excavations of the early Byzantine village of 'Kaukana' at Punta Secca, in the province of Ragusa on the south-east coast of Sicily, led by Roger Wilson, unearthed an early Christian tomb dated to no later than AD 625–630 (Wilson 2011; Wilson *et al.* 2010). The tomb was sealed by a large broken slab on which was carved in Greek the word ΑΓΙΟΣ ('hagios' = holy) inside a rectangular panel (Figure 7). Surrounding the panel was a swastika-like motif of swirling grooves and cups.

The Punta Secca swastika differs from the motif on the 'Swastika Stone' as it runs clockwise and lacks

Figure 3. Swastika Stone motif: (left) photograph by E. Vickerman, © E. Vickerman; (right) RTI enhanced photograph by R. Stroud, © R. Stroud/CSI.

Figure 4. 'Camunian rose', Carpene di Sellero, Valcamonica, NE Italy. © Luca Giarelli/CC-BY-SA 3.0.

Figure 5. 'Camunian Rose', Giadighe, Capo di Ponte, Valcamonica, NE Italy. © Anati 1976.

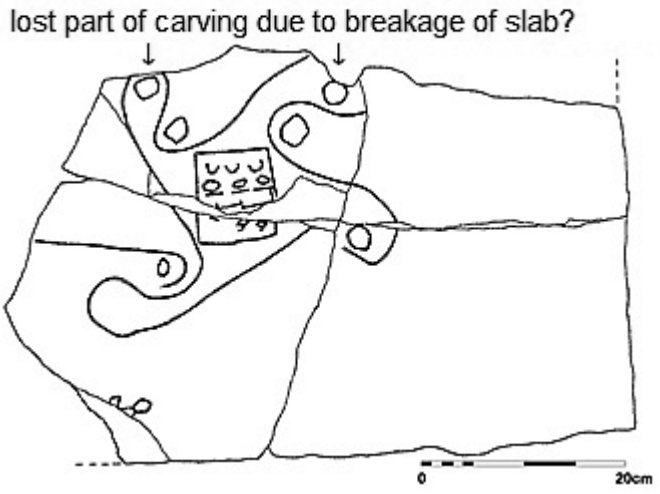


Figure 7. Tomb slab from Punta Secca, Building No. 6. © S. Cann.

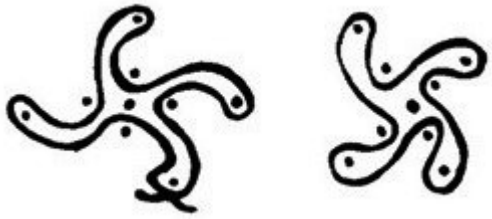


Figure 6. Askum Raä motifs, Hovenäs, SW Sweden: (left) site 76.2; (right) site 80. © Bengtsson 2002.

the characteristic Ilkley 'tail'. It might be assumed that the central cup is missing as the carving of the (later) Christian motifs probably obliterated it. Further, the edges of the slab have clearly been broken and the ends of two of the swastika's limbs have been lost (Figure 7). One explanation would seem to be that the swastika was carved some time before the early Christian era in Sicily and is not therefore contemporary with the tomb, still less with the building that surrounded it. However, Wilson (pers. comm.) completely disagrees and believes the swastika and the 'hagios' inscription were carved at approximately the same time, when the stone was specifically cut and prepared as a grave cover.

Yet more recently, news of a similar carving on an altogether different continent was brought to the author's attention. In papers published on-line, Christian Dupuy, an authority on the rock carvings of Saharan Africa, gives a detailed account of the ancient rock art of Issamadanen, on the edge of the Adrar des Iforas massif in north-

Figure 8. Swastika Stone 'homologues': (left) Issamadanen, Adrar des Iforas, Mali (from Dupuy 2010: fig. 1), © C. Dupuy; (right) Castro di Guifões, Matosinhos, Portugal (Coimbra 2015: fig. 1), © F. Coimbra.

Figure 9. Distribution of Atlantico-Mediterranean 'Swastika Stone' homologues.

eastern Mali, an area with over a thousand ancient rock carvings of various styles (Dupuy 2006, 2010). On one slab, among carvings of ostriches, giraffes and other figures, is a pecked motif so astonishingly similar to that on the 'Swastika Stone' that it could almost be a copy (Figure 8 left). The rock also carries a hint of cup marks towards the centre (Dupuy 2010: 119). Dupuy refers to yet another similar carving from Portugal, on a stone inserted into the wall of a building in the Iron Age hillfort of Guifões (Figure 8 right) at Matosinhos near Oporto, first reported by Fernando Coimbra (Coimbra 1999; Santos 1963: 6). Indeed, Coimbra himself identifies it, along with the 'Swastika Stone' and the carved rocks at Valcamonica, as a 'Swastika' homologue and includes it in his list of European parallels (Coimbra 1999, 2015; Coimbra and Meireles-Martins 1997) (Figure 9).

Dating the Swastika Stone

The obvious question that arises, given the wide distribution in the occurrence of such motifs, is what, if anything, is the connection between them? Was the motif independently conceived in each location or did the idea of the swastika motif radiate from a single geographical and cultural centre? This requires a closer look at their distribution and at their suggested dates.

When Collyer's *Ilkley Ancient and Modern* was published in 1885, Horsfall Turner had already compared the Ilkley swastika to the Hovenäs carving in Sweden (Horsfall Turner 1885) and Speight's *Upper Wharfedale* of 1900 describes both the Swastika Stone and the carvings found in Valcamonica (Speight 1900: 231–241). Although the Swastika Stone design does incorporate cup marks, it is *not* in the more familiar cup-and-ring style of the Late Neolithic/Early Bronze Age and on *stylistic* grounds is more likely to date from the considerably later La Tène period of the Iron Age, *c.* 300 BC (Boughey 2011), more specifically, the period known as La Tène I (400–250 BC) (Leeds 1933). Compare the motif, for example, with the decoration on the *c.* 50 BC Belgic Aylseford bucket (Cunliffe 2004: 356), the fourth century BC Wisbech dagger sheath from the La Tène I period (Cunliffe 1978: 152, pl. 18) and the second century BC Wandsworth and Witham shields (Cunliffe 1978: pls. 19, 19b). Elements of a quadrilobate design complete with enclosed cups can be found on several pieces of Iron Age art, including two fine fibulae of the Hallstatt B3 period (eighth century BC) from Grossweikersdorf, Austria (Müller-Karpe 1959: tabs. 142B e8, 282) (Figure 10a) and a pair of La Tène I circular amber plaques recovered from the Jezerine necropolis near Bihać in north-western Bosnia dated to 360–250 BC (Maric 1971: tabs. II, 24eIII, 28) (Figure 10b). There is, however, an example of the motif from

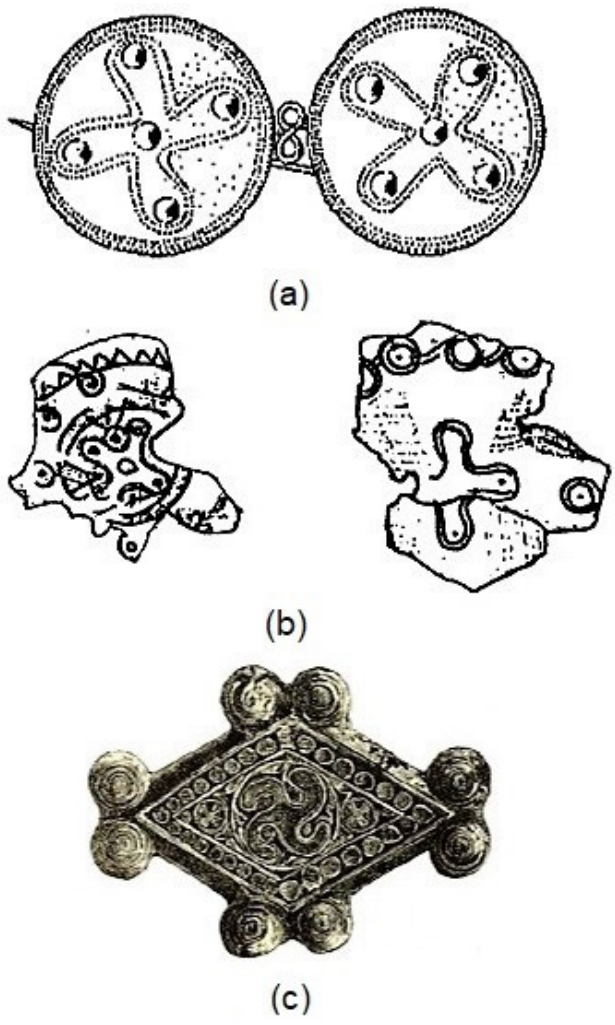


Figure 10. (a) Pair of fibulae from Grossweikersdorf, Low Austria (Müller-Karpe 1959); (b) Pair of La Tène I amber plaques, Jezerine, near Bihać, NW Bosnia (Maric 1971); (c) Mycenae – wooden 'button' (Schliemann 1878: 259).

the European Bronze Age on two gold-covered wooden buttons retrieved by Schliemann in Mycenae dating from *c.* 1500 BC (Schliemann 1878: 259, 261–262) (Figure 10c) though this is an isolated example and, as Roger Wilson points out, there is then a gap of some 900 years—at least in Europe—before the next appearance of the motif in Valcamonica and elsewhere.

An understandable mistake of attribution was made by the Ilkley Urban District Council on the plaque formerly on display at the site (now either removed or lost) which, relating it to an example from Mycenae, dated the carving to the Bronze Age, *c.* 1800 BC according to the 'best authorities' (Figure 11). Dating from the same time (1913) as the erection of the railings around the rock, this is almost certainly a reference to the opinion expressed just the year before in *Celtic Art in Christian and Pagan Times* by Romilly Allen (1912).

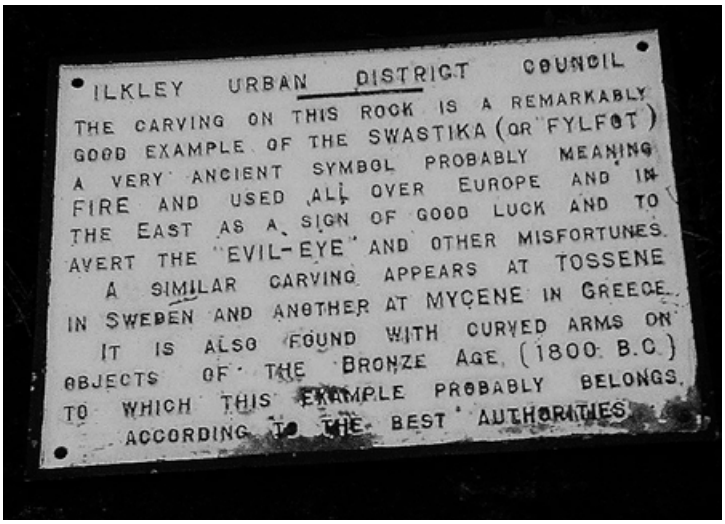


Figure 11. Former Ilkley Urban District Council explanatory plaque displayed by the Swastika Stone.

A case of symbolism – warriors?

There are several cases where engravings of the 'Camunian rose' in Valcamonica are found in close association with a clearly anthropomorphic motif. Directly alongside the swirling swastika design is the stick outline of a dynamic male figure with waving arms, brandishing what appears to be a sword in his right hand and carrying a small shield in his left, a figure that has been interpreted as a 'warrior' (e.g., Figure 12). In every such case, the warrior's right sword-waving arm is shown bent at the elbow to the right as viewed, giving the whole figure a clockwise flow. It is not impossible to imagine that the swastika is simply a stylised representation of the warrior figure, stripped down to its basic geometric elements, with the same four bent lobes or limbs and clockwise orientation. According to scholars of the Valcamonica rock art, both the warrior figure and the curving swastika date from the IV-2 Iron Age phase of Valcamonican art *c.* 650–550 BC (Anati 1982; Fossati 2002: 98).

Comets?

On an altogether different track, Mike Baillie, an expert in dendrochronology, has recently reported on links between tree-ring growth in Irish bog oak, folklore and the appearance of comets. Baillie writes that in ancient texts comets were often depicted as triskele or swastika-like figures with a central nucleus and three or four swirling arms representing the tails of the comet (McCafferty and Baillie 2005: 83–90). This echoes the earlier, more speculative view of the astronomical theorist, Carl Sagan who, in his discussion of ancient Chinese astronomical texts, suggested that in antiquity a comet could have approached so close to Earth that the jets of gas streaming from it, bent by the comet's rotation, became visible, leading to the adoption of the swastika as a symbol across the world (Sagan and Druyan 1985: 159). Baillie notes that a series of dates taken from extraordinarily poor ring growth in Irish bog oaks coincides with the appearance of exceptionally bright comets in 1628 BC, 1159 BC, 1132 BC, 207 BC and AD 237 (McCafferty and Baillie 2005: 153), any of which would have been clearly visible in the skies above Ilkley Moor on dates compatible with the local Bronze and Iron Ages; one date in particular, 207 BC, coincides with the La Tène I period (John Cruse pers. comm.).

Celts?

Another intriguing, though possibly fanciful, explanation of how the Swastika Stone came to be carved was proposed in 2004 (http://www.themodernantiquarian.com/site/95/ swastika_stone.html). In the early Roman period, Ilkley was an Agricolan fortress town, *Olicana*. A Roman altar stone dating from the second century AD was recovered from the fortress site (Collingwood and Wright 1965: RIB 635). It bears the following inscription: 'VERBEIA(E) SACRVM CLODIVS FRONTO PRAEF COH II LINGON' i.e., 'Sacred/ dedicated to Verbeia, Clodius Fronto Prefect of the Second Cohort of the Lingones'. Several unstamped Roman tiles found in Ilkley also bear the cohort's name. Roman documentary sources place

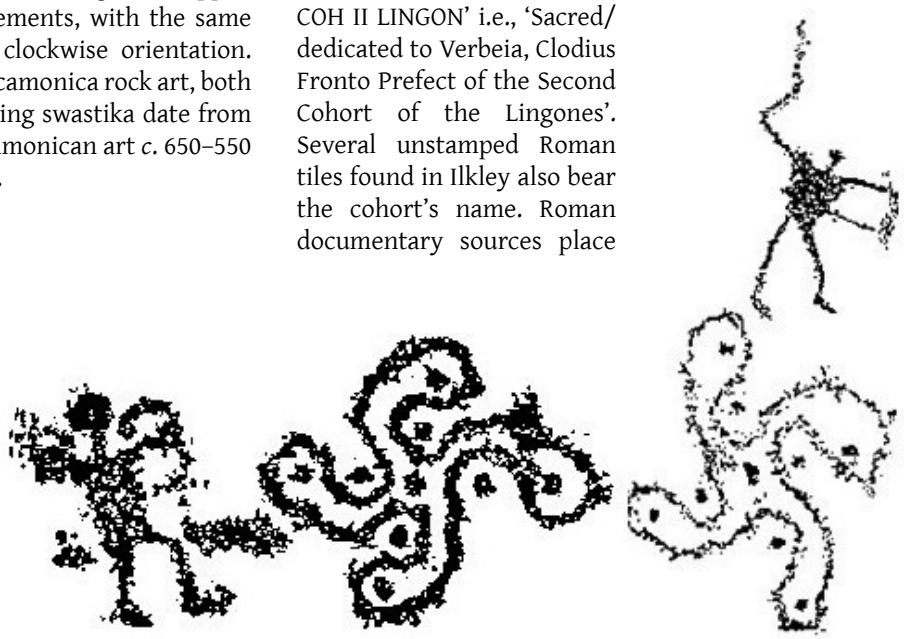


Figure 12. Examples of Valcamonican 'warriors' and swastikas: (left) Dos Sulif, Paspardo; (right) Giadighe, Capo di Ponte. © Anati 1976.

the 2nd Lingonian cohort in Britain from AD 98–158. They were first sent to *Britannia* on the orders of Vespasian (r. AD 69–79) and later stationed on Hadrian's Wall during the time of Hadrian (r. AD 117–138). The Lingones inhabited land between the Seine and the Marne in France, but according to the Roman writer Livy, during the sixth century BC some of them moved and settled along the Adriatic coast of north-east Italy, in a region known to the Romans as Cis-Alpine Gaul (Ross 1967: 279). The assumption is that the Lingones stationed in Ilkley could have been familiar with the 'Camunian rose' from their home in the Valcamonica area of Italy, and that one of them executed the carving. Indeed, Emmanuel Anati, an expert on Valcamonican carvings, was among the first to postulate the possible early movement of Iron Age groups from central Europe carrying the emblem with them to Scandinavia and Britain (Ilkley Archaeology Group 1986; Emmanuel Anati pers. comm.).

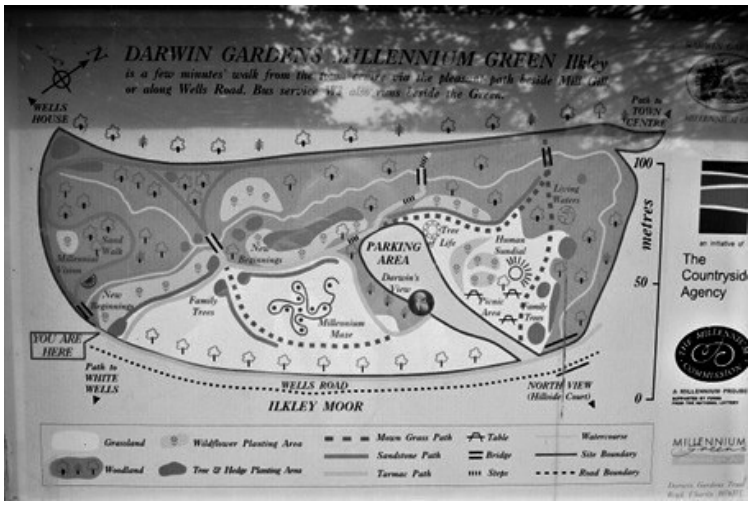


Figure 13. Information board, Darwin Gardens, Ilkley (note quadrilobate motif in the centre).

Figure 14. llkley Rugby Union Club logo.

Conclusion

Although the Swastika Stone is probably the most well-known of the more than 300 examples of rock art now recorded on Ilkley Moor and the surrounding moors, and is celebrated in the town (Figure 13), the motif even being adopted as the logo for the local Rugby Club (Figure 14), it remains, arguably, the most problematic. The prevalence of the motif across the world, especially in Europe, calls for a special explanation. One can either argue for the transmission of the idea itself or of people with the idea from one place to another or, as Wilson (2013: 174) and others have suggested, for the persistence of some subconscious or mystical folkloric 'Jungian' idea which arose independently in different cultures at different times. I believe the first option to be the more straightforward, plausible and open to research; the second seems to be little better than a restatement of the problem couched in pseudo-psychological language. Much ink has been spilt on the subject by me and by others. A number of interpretations have been offered, including those covered in the course of this account, some entirely plausible, others (e.g., aliens from outer space!) considerably less so. The most reasonable conclusion is that the Swastika Stone dates from no earlier than the Middle to Late Iron Age, rather than from the Late Neolithic/Early Bronze Age now generally accepted for cup-and-ring carvings.

Acknowledgements

First and most importantly of all, I must thank Stan Beckensall himself, the doyen of UK prehistoric rock art studies, whose untiring energy and enthusiasm for the subject was a source of inspiration for my own research. Secondly, I should particularly like to recall the assistance and friendship I shared with my late friend and fellow rock art enthusiast, Edward Vickerman. Thanks too, to John Cruse, Secretary of the Prehistory Research Section of the Yorkshire Archaeological and Historical Society, for first drawing my attention to the possible cometary link of the Swastika Stone and to the Punta Secca excavation; to Emmanuel Anati for permission to reproduce illustrations of the Valcamonican carvings; Roger Wilson, the Director of excavations at Punta Secca, for reading an early version of this paper and making a number of important corrective comments; to Geoff Barnes, member of the Prehistory Research Section of the Yorkshire Archaeological and Historical Society, who first informed me of Dupuy's work on the rock carvings at Adrar des Iforas; and finally to Fernando Coimbra, of the Polytechnic Institute of Tomar, Geosciences Centre, University of Coimbra, Portugal, for permission to reproduce the image of the Castro di Guifões carved rock.

References

Allen, J.R. 1879. The prehistoric rock-sculptures of Ilkley. *Journal of the British Archaeological Association* 35: 15–25.

Allen, J.R. 1912. *Celtic Art in Christian and Pagan Times*. 2nd edn. London: Methuen.

Anati, E. 1976. *Evolution and Style in Camunian Rock Art: An Enquiry into the Formation of European Civilization*, *Archivi 6*. Capo di Ponte: Edizioni del Centro.

Anati, E. 1982. *I camuni: alle radici della civiltà europea*. Milan: Jaca Book.

Bahn, P. 2009. Shamanism: a dead end in rock-art studies, in S. Beckensall *Prehistoric Rock Art in Britain*: 150–153. Stroud: Amberley Publishing.

Beckensall, S. 2005. *Prehistoric Rock Art of Kilmartin*. Kilmartin: Kilmartin House.

Bengtsson, L. (ed.). 2002. *Hällristningar från Askums socken Bohuslän del 3, Arkeologisk rapport 6 från Vitlyckemuseet*. Tanumshede: Vitlyckemuseet.

Bevan, L. 2006. *Worshippers and Warriors: Reconstructing Gender and Gender Relations in the Prehistoric Rock Art of Naquane National Park, Valcamonica, Brescia, Northern Italy* (British Archaeological Reports International Series 1485). Oxford: Archaeopress.

Boughey, K. 2011. Sermons in Stones: the meaning of prehistoric rock art, the 'Camunian rose' and the strange case of the Swastika Stone, Ilkley. *Prehistory Research Section Bulletin* 48: 73–86.

Boughey, K. and E. Vickerman. 2003. *Prehistoric Rock Art of the West Riding. Cup-and-Ring-Marked Rocks of the Valleys of the Aire, Wharfe, Washburn and Nidd*. Wakefield: West Yorkshire Archaeology Service.

Bradley, R. 1997. *Rock Art and the Prehistory of Atlantic Europe*. London: Routledge.

Breuil, H. 1934. Presidential address for 1934. *Proceedings of the Prehistoric Society of East Anglia* 7(3): 289–322.

Coimbra, F. 1999. A Suástica do Castro de Guifões e Alguns Paralelos Europeus. *Matesinhus: Revista de Arqueologia, História e Património de Matosinhos* 3: 107–112.

Coimbra, F. 2015. Some considerations about the Protohistoric Rock Art in the Iberian Peninsula and recent findings in the eastern Mediterranean. *Quaderns de Prehistòrica I Arqueologia de Castello* 33: 81–89.

Coimbra, F.A. and Meireles-Martins, P.J.C. 1997. A Suástica e suas variantes no Norte de Portugal, desde a Pré-História até a actualidade. *Catalogo sociedade Martins Sarmento*, Guimares.

Collingwood, R.G. and R.P. Wright. 1965. *Roman Inscriptions of Britain*. Vol I. Oxford: Clarendon Press.

Cooper, J.C. 1978. *An Illustrated Encyclopedia of Traditional Symbols*. London: Thames and Hudson.

Cowling, E.T. 1946. *Rombalds Way: A Prehistory of Mid-Wharfedale*. Otley: William Walker and Sons (Otley) Ltd.

Cunliffe, B. 1978. *Iron Age Communities in Britain*. London: Routledge and Kegan Paul.

Cunliffe, B. 2004. Iron Age Societies in Western Europe and Beyond, 800–140 BC, in B. Cunliffe (ed.) *The Oxford Illustrated Prehistory of Europe*: 336–72. London: BCA.

de Marinis, R.C. 1988. I Camuni, in A.M. Chieco Bianchi, G. Colonna and B. D'Agostino *et al.* (eds) *Italia Omnium Terrarum Alumna*: 131–155. Milan: Scheiwiller.

de Marinis, R.C. 1992. *Problemi di cronologia dell'arte rupestre della Valcamonica, Atti della XXVIII Riunione scientifica dell'Istituto Italiano di Preistoria e Protostoria:* 169–195. Florence: IIPP.

Dupuy, C. 2006. L'Adrar des Iforas (Mali) à l'époque des chars: art, religion, rapports sociaux et relations à grande distance. *Sahara* 17: 29–50.

Dupuy, C. 2010. Une gravure rupestre dans l'Adrar des Iforas (Mali) identique aux 'roses camuniennes' du val Camonica (Italie). *Les Cahiers de l'AARS, Saint-Lizier: Association des amis de l'art rupestre saharien*: 117–126.

Fossati, A. 1991. L'età del Ferro nelle incisioni rupestri della Valcamonica, in R. La Guardia (ed.) *Immagini di una Aristocrazia dell'età del Ferro nell'Arte Rupestre Camuna. Contributi in Occasione della Mostra*: 11–71. Milan: Commune di Milano, Settore Cultura e Spettacolo, Raciotte Archeologiche e Numistache.

Fossati, A. 2002. Landscape representations on boulders and menhirs in the Valcamonica-Valtellina area, Alpine Italy, in G. Nash and C. Chippindale (eds) *European Landscapes of Rock-Art*: 93–115. London: Routledge.

Fredsjö, Å. 1972. Kors i Askum. *Bohusläns Hembygdförbunds Årsskrift*. Uddevalla: Landsantikvarien, Uddevalla Museum.

Freed, S.A. and R.S. Freed. 1980. Origin of the Swastika. *Natural History (American Museum of Natural History)*: 68–74.

Holmberg, A.E. 1848. *Skandinaviens Hällristningar*. Stockholm: P.G. Berg.

Horsfall Turner, J. 1885. A chapter on the pre-historic remains, in Rev R. Collyer (ed.), *Ilkley: Ancient and Modern*: lxxvii–xcvi. Leeds: Joseph Dodgson.

Ilkley Archaeology Group. 1986. *The Carved Rocks on Rombalds Moor. A Gazetteer of the Prehistoric Rock Carvings on Rombalds Moor, West Yorkshire*. Wakefield: WYAS.

Jacobsthal, P. 1938. Celtic rock carvings in northern Italy and Yorkshire. *Journal of Roman Studies* 28: 65–69.

La Guardia, R. (ed.). 1991. *Immagini di una aristocrazia dell'età del ferro nell'arte rupestre camuna. Contributi in occasione della mostra, Castello Sforzesco, aprile 1991-marzo 1992, Milano.* Milan.

Leeds, E.T. 1933. *Celtic Ornament in the British Isles down to AD 700*. Oxford: Clarendon Press.

Lewis-Williams, J.D. and Dowson, T.A. 1988. Signs of all times: entoptic phenomena in Upper Palaeolithic art. *Current Anthropology* 29: 201–245.

Lewis-Williams, J.D. and T.A. Dowson. 1993. On vision and power in the Neolithic: evidence from the decorated monuments. *Current Anthropology* 34: 55–65.

Maric, Z. 1971. *Wissenschaftliche Mitteilungen des bosnisch-herzegowinischen Landesmuseums*. Band I. Sarajevo.

McCafferty, P. and M. Baillie. 2005. *The Celtic Gods: Comets in Irish Mythology*. Stroud: Tempus.

Morris, R.W.B. 1979. *The Prehistoric Rock Art of Galloway and the Isle of Man*. Poole: Blandford Press.

Mithen, S. 1998. *The Prehistory of The Mind*. London: Phoenix.

Müller-Karpe, H. 1959. *Beiträge zur Chronologie der Urnenfelderzeit nördlich und südlich der Alpen*. Römisch-Germanischen Forschungen 22. Berlin.

Patton, M. 1990. On entoptic images in context: art, monuments and society in Neolithic Brittany. *Current Anthropology* 31: 554–58.

Ross, A. 1967. *Pagan Celtic Britain*. London: Routledge and Kegan Paul.

Sagan, C. and A. Druyan. 1985. *Comet*. London: Michael Joseph.

Santos, J.N. 1963. Serpentes geminadas em suástica e figurações serpentiformes do Castro de Guifões. *Lucerna* III: 5–25.

Schliemann, H. 1874. *Troy and its Remains*. London: John Murray.

Schliemann, H. 1878. *Mycenae: A Narrative of Researches and Discoveries at Mycenae and Tiryns.* London: John Murray.

Schliemann, H. 1880. *Ilios: The City and Country of the Trojans. The Results of Researches and Discoveries on the Site of Troy and throughout the Troad in the Years 1871–72–73–78–79.* London: John Murray.

Speight, H. 1900. *Upper Wharfedale*. London: Elliot Stock.

Thornton Dale, J. 1880. Collection of fourteen drawings of cup-marked rocks deposited at Ilkley Library, prepared and presented by Dr Call.

Wheeler, R.E.M. 1954. *Archaeology from the Earth*. Oxford: Clarendon Press.

Wilson, R. 2011. Banquets for the dead. New discoveries in early Byzantine Sicily. *Current World Archaeology* 44: 38–45.

Wilson, R.J.A. 2013. An unusual Early Byzantine 'Thrice-Holy' inscription and accompanying design from Punta Secca, Sicily. *Phoenix* 67(1–2): 163–181.

Wilson, R.J.A., G. Di Stefano, J.W. Hayes and C.L. Sulosky. 2010. An Early Byzantine 'élite' tomb in a domestic context at Kaukana, Sicily. *Journal of Roman Archaeology* 22: 412–415.

11

Emblems of eternity? Cup-and-ring marks: context and connotation

Paul Frodsham

The roots of this paper lie in an experience shared with Stan Beckensall in November 2005 (Beckensall 2006: ch. 1). We were visiting cup-and-ring marked rocks recently recorded by George Currie on Craig Hill, 4km east of Kenmore at the north-east end of Loch Tay (Council for Scottish Archaeology 2006: 105–106). It was a wild, typically Scottish late autumn day: cold, windy and wet, often with negligible visibility as low cloud blew across the hill, but with occasional distant views. Despite the conditions, Stan was determined to attempt a rubbing of one of the rocks (Figure 1), so I left him to this for half an hour during which I explored the area on my own. While contemplating a particular decorated rock, I found myself experiencing unexpected and quite profoundly pleasant feelings that I described at the time as of 'overwhelming serenity' and 'a kind of oneness with nature'. I was away from my everyday world and completely alone, isolated within the clouds. I wondered whether such feelings might relate in any way to those of Neolithic people who had been in this very spot, producing the petroglyphs, so long ago. Were they also away from their everyday world, perhaps lost in clouds as I was? Were they, like me, on their own, or in a group? And why were they there at all?

It occurred to me at the time that had I been actively seeking a place for such a mystical experience, I could probably have done no better. I knew that a five-minute stroll across the hill would reunite me with Stan, and that we were only a couple of hours away from 'civilisation', but the experience was nonetheless profound, and I have never forgotten it. We discussed it at length during our descent of the hill, and Stan has reminded me of it many times since, describing the occasion in a recent email as 'awesome'. A recent visit to Ormaig, Kilmartin, involving an arduous trek through moorland and conifer forest, led to similar feelings (Figure 2). I have also had comparable experiences at numerous sites in Northumberland, usually when visiting them alone.

I have long been aware of potential similarities between aspects of Native American spiritual life and those of Neolithic Britain, and while on Craig Hill I wondered whether the rock art there (and elsewhere in Britain and Ireland) could be related to activity akin to the Native American vision quest. Subsequently, I have thought more about this, often while visiting rock art sites, and have become all but convinced of its

Figure 1. Stan Beckensall at Craig Hill (panel 21), Strathtay, in November 2005, and another view of the same panel showing more of its landscape setting.

Figure 2. Ormaig (Kilmartin), September 2021.

relevance. I might be completely wrong, and readers should bear in mind that much of what I say in this paper is speculative. I make no apology for this, as it is surely through such speculation, linked to future fieldwork, that we will advance our understanding of this most enigmatic of subjects. The aim of this contribution, offered to Stan as a token of friendship and respect, is to consider whether there is any merit in the above observations in terms of the general nature and possible purpose of cup-and-ring marks.

Before proceeding, I should offer a brief explanation of my title. The term 'emblems of eternity' was first used in the mid-nineteenth century by the brilliant Alnwick antiquary, George Tate, in his splendid overview of Northumberland cup-and-ring marks (Tate 1865: 5). Oddly, for someone as thorough as Tate, this was actually a misquote from an earlier article by William Dickson (1858: 72) which stated 'Here, on the borders, we have the mysterious concentric circles carved on the bedrocks of Doddington and elsewhere, emblematical of eternity'. Regardless of its origin, it is, as I hope to demonstrate, a far from inappropriate term with regard to the subject in question.

Tate closed his overview of Northumberland rock art with a chapter entitled 'What mean these sculptures?' (1865: 38–44). Constrained (even more so than we are today) by a lack of dating evidence, he linked the petroglyphs to Celts and Druids, but noted that 'the figures are symbolical – most probably of religious ideas', before stating that 'beyond these general views, I confess we wander into the regions of fancy and conjecture.' He concluded that 'Those who are not content unless every mystery is fully explained may feel dissatisfied, that after all the labour and research bestowed on the inscribed rocks, we cannot read them off as from a lettered book.' As I hope to show, attempts to 'read' cup-and-ring marks in such a way are doomed to failure; a substantial degree of mystery has probably always been, and will continue to be, an essential aspect of their character.

More than a century after Tate, in the late 1970s, the great Scottish rock art scholar, Ronald Morris (Brophy, this volume), published a list of 104 theories, 'put forward in all seriousness from time to time by archaeologists and others to explain these mysteries' (Morris 1979: 15–28). These 'theories' range from observations that are so vague that they can hardly be wrong (e.g., they 'were used in burial ceremonies' and had a 'magical or religious significance') to others that are absurdly specific and clearly nonsense. (In the latter category, a personal favourite, because it is so wrong on so many levels, is that 'the Chief made a cup-and-ring to celebrate each female conquest he made'. Frustratingly, we are not told why the majority of conquests warranted only a simple motif, whereas a few were commemorated by huge, complex motifs with numerous rings.) It is with this fascinating list that attempts to account for meaning often begin. I mean no criticism of Morris, who (despite 'expecting to be torn to shreds by believers in each theory') dismisses 25% of the 104 as 'quite impossible' and many of the others as less than 'reasonably sensible', but I believe a search for definitive meaning or purpose by reference to the kind of ideas in his list is probably misguided. I have long been convinced that cup-and-ring marks do not represent any kind of 'thing', but that a commonly appreciated underlying concept of some kind must underpin their extensive distribution throughout Atlantic Europe (Bradley 1997; Valdez-Tullett 2019). The motifs may have related to concepts such as fertility (Frodsham 2007) and death, but not in a way

that we would necessarily be capable of comprehending today. Indeed, assumptions that the motifs are in any way translatable, in terms of 'meaning' or 'purpose', into modern Western language are without foundation, as I hope to make clear.

In this paper I present sections entitled 'Context' and 'Connotation' (both of which focus essentially on open air 'Atlantic' rock art, consisting largely of cup marks and cup-and-ring marks, in its original landscape context). This division is arbitrary and far from ideal, but I believe it is useful here. Within each section I will illustrate possibilities by reference to Native American tradition, drawing particularly on the inspirational work of Joseph Epes Brown and Black Elk (Hehaka Sapa), a Lakota Sioux celebrated as 'one of the most eminent American Indian spiritual leaders of the twentieth century' (Brown *et al.* 2007: ix. See also Brown 1953, 1982; Neihardt 2014). In doing so, I am not suggesting that Neolithic Britain is directly comparable with North America thousands of years later, but I do believe that Native American tradition offers intriguing possibilities regarding cup-and-ring marks (as indeed do other traditions from around the world). My aim is not to provide a comprehensive explanation of cup-and-ring art (an impossible task) but rather to highlight possibilities worthy of more detailed consideration.

Context

Landscape

It has long been noted that complex panels of Atlantic rock art tend to occur at splendid viewpoints (Figure 3). Even allowing for our lack of knowledge about woodland cover when the carvings were made, this general observation seems indisputable. Beyond this, however, little is clear. Much detailed analysis has been undertaken regarding the landscape settings of panels in relation to other panels, natural and archaeological features, and distant views. If consistent patterns existed, they would surely have been recognised by now. It seems that there must have been other forces at work, invisible to conventional archaeological enquiry, that were key to why particular sites were chosen and others ignored, and why the decoration on some became far more complex than on others.

It is important to briefly summarise here what we know in terms of context in key rock art regions. Fortunately, Richard Bradley has already done this for us, by reference to his own fieldwork and that of others. He notes that 'the details may seem tiresome and the statistics may suggest a misplaced quest for precision', but that:

Figure 3. Stan Beckensall, pictured in 1996 enjoying the view towards the Cheviots from one of his favourite sites, Chatton Park Hill (Northumberland).

> At one level it is certainly true that petroglyphs seem to be found in areas with fertile soils, and in most cases they overlook them from rather higher ground. Those carvings seem to be most abundant where the best soils are of limited extent and are often found towards the outer edges of especially favoured areas where the possibilities of sustained land use might have been curtailed. (Bradley 1997: 88)

Bradley also notes Susan Johnston's (1991: 93) general observation regarding Irish rock carvings being typically located on hillslopes overlooking fertile and easily cultivated valleys or lowlands. In both Britain and Ireland, a key observation is that rock art tends to be situated close to, but beyond, productive land. While this general statement masks a myriad of local variations (and Aoibheann Lambe, in this volume, echoes Blaze O'Connor (2006, 204) and others in suggesting that things may have been rather different in parts of Ireland), it is, I think, very significant.

Cup-and-ring panels tend to enjoy southerly aspects and wide views of the sky, suggesting that links with the heavens, and particularly the sun, may have been significant. On Ben Lawers (Figures 4 and 5) the southerly aspect of numerous rock art sites affords views over Loch Tay, the surface of which reflects both the sky and the land to the south (Bradley and Watson 2012). This has led to suggestions that such imagery could relate to a three-tier cosmology of sky, land and water (Bradley *et al.* 2012: 58). During fieldwork on Ben Lawers it was also noted that the mineral composition of several decorated rocks causes them to sparkle in sunlight, and bright moonlight. I have noticed this at many Northumberland sites, and it must also have been observed by Neolithic people, who would also have been aware of the changing appearance of panels throughout each day, and throughout the year, in relation to the angle and strength of sunlight; this could well be of far greater significance than we tend to acknowledge (Jones 2012: 86–87). On Ben Lawers, a platform was found constructed against one decorated outcrop, and a similar feature was recorded at Torbhlaren, Kilmartin (Jones *et al.* 2011: 50–54). Such features may exist at other sites; if their function can be ascertained, it might offer clues regarding the purpose of the rock art.

I suspect the land around many carvings was used for seasonal upland grazing and/or hunting. Sites may therefore have been encountered by people out in the hills for such reasons, but this does not begin to explain why some rocks were embellished. I think it very unlikely that they were primarily intended as 'territorial markers' and, despite some attempts to interpret them as 'signposts' on 'routeways', this simply does not work in practice. Although many are close to probable routeways (in terms of general landscape location), it would be odd if they were not, as how then would people have arrived in their vicinity? I have never believed that rock art panels were 'signposts' to anything, certainly not anything in this world. This view receives support from recent work by the Scotland's Rock Art Project (Barnett *et al.*, this volume), and from Vivien Deacon's excellent work

Figure 4. Stan Beckensall on Ben Lawers, November 2005.

Figure 5. Stan Beckensall with Richard Bradley at the Ben Lawers excavations, July 2007.

on Rombald's Moor, West Yorkshire. In the conclusion to her exhaustive survey, Deacon observes that 'The findings did not support interpretations connecting rock-art with text, or as messages concerning rights to access, nor with carvings made across a large area as a single coherent system' (Deacon 2020: 183).

Chronology

A key factor may be the observation that rock art sites are located at some distance from potentially contemporaneous settlement sites (I say 'potentially' because so little is known of the chronology of both rock art and settlement). Chronology, a key aspect of context, is problematic for many reasons. On complex panels, motifs could have been executed in a brief, single episode, or could have been added over decades or centuries. Excavation by Clive Waddington and colleagues at Hunterheugh, Northumberland (Waddington *et al.* 2005), demonstrated at least two phases of carving, perhaps separated by centuries, echoing earlier observations at Greenland, Dunbartonshire (Mackie and Davis 1985). Future excavations may recognise comparable patterns elsewhere. Surveys have tended to view all sites within a given area as roughly contemporaneous, but while it is true that individual panels in any one area could all date to within a few years of each other, they could have been produced over several centuries, perhaps in multiple phases, each of unknown duration. The situation is further complicated by the reuse of decorated slabs within a variety of monuments; for example, as standing stones and cist slabs.

We have very few radiocarbon dates for Atlantic rock art. At Torbhlaren, Kilmartin, a Middle Neolithic date of 2920–2860 cal BC seems to relate to rock art production, as, potentially, does a Bronze Age one of 1320–1110 cal BC (Jones *et al.* 2011: 253). A stake circle adjacent to one decorated outcrop provided a date of 2580-2340 cal BC, though its purpose and relationship to the rock art are unclear. Later dates from Torbhlaren are dismissed, almost certainly correctly, as irrelevant to rock art production, though they do suggest long-term awareness of the site's special significance. A date of 2923–2613 cal BC was obtained for a context adjacent to, but not necessarily contemporary with, rock art at Backstone Beck, Rombald's Moor (Edwards and Bradley 1999: 76). Also on Rombald's Moor, at Stanbury Hill, dates of 2035–1895 cal BC and 1905–1755 cal BC were obtained from contexts associated with cup-and-ring marked rocks, though their exact

relationship to the production of the rock art is unclear (Brown *et al.* 2013: 64). From a funerary context, the splendid cist cover from Fulforth Farm, Witton Gilbert (discussed below) probably dates from 2200–1960 cal BC (Barker and Wright 2009: 17). Arran pitchstone from Torbhlaren and Ben Lawers, Grooved Ware and lithics from Backstone Beck, and an apparent polished axe fragment from Hunterheugh (Waddington *et al.* 2005: 52) all point towards Neolithic activity in these places, though do not necessarily date the production of rock art. Excavation around the Tortie Stone, Cumbria, recovered lithics ranging in date from the Late Mesolithic to the Early Bronze Age (Vyner 2013).

In Ireland, relationships between Atlantic rock art and passage tombs offer tantalising clues to chronology (Bradley 2009: ch. 5; Johnston 1993; O'Connor 2006: 49-54; Waddington 2007), and it appears that some tombs, notably at Loughcrew (Shee Twohig 2012; Shee Twohig *et al.* 2010) incorporate weathered panels of open-air art which must, therefore, be no later (and possibly much earlier) than Middle Neolithic in origin. Blaze O'Connor's innovative work at Drumirril (Co. Monaghan) demonstrated activity from the Early Neolithic to the Early Bronze Age (and beyond) around panels of rock art, but was unable to tie any of the rock art to any particular date (O'Connor 2006: ch. 5).

Clearly, many more excavations will be required if we are ever to understand the chronology of Atlantic rock art. Although simple cup marks have been found at several Early Neolithic monuments (some of which are discussed by George Nash in this volume), I suspect that most cup-and-ring marks date from the Middle Neolithic to the Early Bronze Age (though this does not preclude their sites having had significance in earlier, or indeed later, periods). The creation of great Neolithic communal monuments, both funerary and ritual, had generally given way to smaller, more local versions by the Early Bronze Age. Many of the latter were linked to new agricultural landscapes, of which numerous examples survive in the uplands of northern Britain, often with settlements, fields and funerary monuments in close proximity to each other (though their relative chronologies are not always clear). Many also have rock art, but this is usually rather simple in comparison to the complex sites discussed above. Perhaps the changing context of rock art mirrored to an extent that of monuments, with complex large-scale communal rock art sites of the Neolithic (possibly used over several generations) superseded by more local, smaller-scale (perhaps, in some cases, entirely personal) examples during the Early Bronze Age. Many 'rock art landscapes' such as Barningham Moor (County Durham) or Fylingdales (North Yorkshire), which lack the complex panels of Kilmartin and North Northumberland, could be largely (or entirely) of Chalcolithic or Early Bronze Age date. Some support for this is provided by the results of the Stanbury Hill Project noted above, which suggest an early second millennium BC date for the production of 'simple' rock art. Such simplicity of design need not, of course, imply any simplicity of belief; the fact that some large rocks at Stanbury Hill were manoeuvred into position from some distance away, prior to being carved, demonstrates a more sophisticated process than the random addition of motifs to rocks as a form of graffiti, as has occasionally been suggested. This kind of rock art landscape suggests small-scale activity by small groups, possibly with many sites losing significance after only a brief time. I very much like Vivien Deacon's suggestion regarding Rombald's Moor that 'carving has emerged here as acknowledging belief, carried out perhaps both by religious specialists, maybe with an audience, but also by individuals, carving as small personal acts of piety' (Deacon 2020: 183).

As agriculture expanded in the Middle Bronze Age, settlement became permanent in the uplands and interest in 'the old ways' appears to have declined. Increasing emphasis was placed on farming and, consequently, on the future. Fundamental changes in belief systems occurred as essentially backward-looking 'ancestral landscapes' developed into more forward-looking 'agricultural landscapes' (Frodsham 2006). This can be seen very clearly in the archaeological record of the mid second millennium BC, which is when I believe the production of rock art (and its reuse in significant contexts) came to an end. Although people in subsequent millennia must have seen it and wondered about it, rock art was now entombed, perhaps appropriately, back in the world of the ancestors, destined there to remain until the efforts of George Tate and other mid nineteenth-century antiquarians to bring it back into the world of the living.

Quartz

The site of Torbhlaren, noted above, is unusual in having complex decoration at low elevation. It is, however, key to this discussion due to the large amount of quartz found during the excavations of its two substantial decorated outcrops (Jones *et al.* 2011: ch. 3 and ch. 4). This included several hammerstones, presumably used to execute the rock art, and numerous pebbles (some of which may have been used as hammerstones), along with hundreds of smashed fragments, found around the outcrops and deposited within cracks in their surfaces. Although other types of rock were present, quartz and quartzite made up 95% of the lithic assemblage; this cannot have occurred by chance. Not far from Torbhlaren, at the spectacular rock art site of Ormaig, quartz hammerstones and pebbles formed only 50% of the assemblage, and no

shattered quartz was found (Jones *et al.* 2011: ch. 7). The excavators suggest that this could be due to the relative softness of the bedrock, resulting in hammerstones not fracturing during rock art production. To the east, excavated rock art sites on Ben Lawers, above Loch Tay (Figure 5), also revealed considerable quantities of smashed quartz, including remnants of several hammerstones, leaving little doubt that quartz tools had been used in petroglyph production (Bradley *et al.* 2012). Elsewhere in Strathtay, excavation of a cup-marked outcrop at Urlar (about 7km east of the north-east end of the loch, and just 3km north-east of Craig Hill where this paper began), revealed evidence of quartz quarrying and much smashed quartz, including possible remnants of tools used to make the cup marks (Bradley and Watson 2019).

On Stanbury Hill, excavation around a cup-and-ring marked stone recovered a spread of shattered quartz and rounded quartz pebbles, interpreted as deliberate deposition, though not necessarily directly linked with the rock art as remnants of a cairn were also present (Brown *et al.* 2013: 42). The excavations at Hunterheugh did not investigate the ground surrounding the decorated outcrop but did recover 155 natural quartz pebbles from 'rock crevices, where they appeared to have fallen as a result of gravity ... There was no evidence to suggest that any of these unmodified natural pebbles had been deliberately placed in any way.' As such pebbles occur naturally in the local soils, they were 'not considered to have had any particular significance' (Waddington *et al.* 2005: 43). This perhaps mirrors the situation at Ormaig: some of the Hunterheugh pebbles could have been used to peck at the rock surface. Similar in many ways to Hunterheugh, the extensively decorated outcrop at Greenland was 'stripped of turf of varying thickness' in 1895 (Bruce 1896) and subjected to three weeks of 'de-turfing, cleaning and recording' in 1984 (Mackie and Davis 1985). The emphasis in both 1895 and 1984 was on the uncovering and recording of the rock art, and it is quite possible that apparently natural pebbles or fragments of quartz were not recorded (the only recorded find being 'a fragment of an early Iron Age jet bracelet in a crack in the rock'). In Ireland, excavations at Drumirril recovered a 'large quantity (122 pieces) of quartz fragments and unworked quartz pebbles', though it was not possible to relate any of this directly to the adjacent rock art (O'Connor 2006: 178).

More excavations are required to enable a meaningful assessment of potential links between quartz and rock art, and future fieldwork must be designed to pay close attention to apparently 'natural' stone as well as 'artefacts'. Fortunately, the excavations at Kilmartin and Strathtay did precisely this, and certainly suggest a significant link between rock art and quartz, at least in some places. What were the reasons for this?

Quartz is, of course, a very common mineral, and it could be argued that it was used in petroglyph production for this reason alone. For various reasons, however, this seems most unlikely, not least because it has also been recorded in numerous other significant Neolithic and Early Bronze Age contexts in the British Isles (Darvill 2002; Fowler and Cummings 2003: 6–8; Reynolds 2009) and in comparable ritual contexts around the world (Hampson 2013). At Sally's Rockshelter, 'a small rock engraving - vision quest site' in the Mojave Desert in the American Southwest (Whitely *et al.* 1999), excavations demonstrated the presence of quartz hammerstones and deposits of shattered white quartz, not unlike those noted above from Torbhlaren, Ben Lawers and Urlar. Also, numerous unmodified quartz cobbles were found in natural crevices in the rock, close to the rock art; these were interpreted by the excavators as offerings. It seems that the hammerstones were brought to the site specifically for use in the production of rock art.

At several other sites in the Mojave Desert region, analysis demonstrated the presence of microscopic fragments of quartz embedded in decorated rock surfaces; these were remnants of the hammerstones used to produce the petroglyphs. Links between rock art, vision quests and quartz are undeniable here, and may well be equally relevant to British rock art sites. The explanation probably lies largely in the triboluminescence of quartz which causes it to glow or flash when struck; in the Neolithic mind, this may well have represented a spiritual presence within the rock, perhaps released through ritual activity at rock art sites. This leads to considerations of animism, which I will touch upon below. (Whitely and colleagues also consider in some detail the shamanic nature of much rock art and associated practices in the Mojave Desert region. The potential relevance of this to British rock art is fascinating, but beyond the confines of the present discussion.)

Quests

In Native American tradition, a few communal ceremonies, most famously the Sun Dance, were of great importance (we can envisage comparable gatherings taking place at our great Neolithic monuments), and the profound sharing of the peace pipe not only stressed bonds between individuals but also affirmed 'the mysterious interrelatedness of all that is' (Brown 1982: 40). However, the solitary

vision quest, involving fasting, meditation and contemplation, often over several days, was arguably of even greater spiritual significance. Black Elk explains that vision quests could be undertaken for various reasons, perhaps the most important being to 'help us to realize our oneness with all things, to know that all things are our relatives' (Brown 1953: 46). Isolation is a key aspect of the vision quest, which must take place away from other people and the 'everyday world'. Indeed, silence is fundamental; Black Elk stresses the importance of contact with silence, 'for is not silence the very voice of the Great Spirit?' (Brown 1982: 60). This is not the place to discuss the complex rituals associated with vision quests (see Black Elk's account in Brown 1953: ch. 4), but it is interesting to note that sweat lodges play a key role in preparing individuals for their quests. Might the numerous burnt mounds recorded in many areas of Britain and Ireland relate to comparable activity?

Similar observations to those of Black Elk are made by the great Dakota Sioux writer, Ohiyesa (Charles Alexander Eastman):

> The worship of the 'Great Mystery' was silent, solitary, free from all self-seeking. It was silent, because all speech is of necessity feeble and imperfect ... It was solitary, because they believed that He is nearer to us in solitude, and there were no priests authorized to come between a man and his Maker. (Eastman 1911: 1)

Eastman refers to the vision quest as a 'religious retreat' or *hambeday*:

> The solitary communion with the Unseen which was the highest expression of our religious life is partly described in the word *hambeday*, literally 'mysterious feeling', which has been variously translated 'fasting' and 'dreaming'. It may better be interpreted as 'consciousness of the divine'. (Eastman 1911: 2)

It seems entirely feasible that many (perhaps most) of our complex cup-and-ring marked rocks could have functioned in some way broadly akin to Native American vision quest sites: places removed from the everyday world, where there was a good chance of an encounter with spirits or ancestors. In America, such encounters could reveal 'aspects of a spiritual world of greater reality underlying this world of appearances ... through which the ultimate reality of the Great Mysterious (*Wakan-Tanka*) may be contemplated, if not comprehended' (Brown 1982: 62).

If British rock art sites did function in this way, those that 'worked best' may have become renowned, and perhaps further embellished, resulting in further activity and thus in further embellishment, in a cycle of ever-increasing complexity and spiritual significance. The production of petroglyphs, a multi-sensory experience involving sight, sound and touch (Lamdin-Whymark in Jones *et al.* 2011: 334–335), may have featured as part of vision-quests, or may have been intended to enhance sites beforehand or afterwards. Other than this, activities at vision quest sites may have left little, if any, trace in the ground, so may be impossible to detect archaeologically.

Lordenshaw

Lordenshaw, in Coquetdale (Northumberland), is a good place to contemplate such things (Beckensall 2001: 88–95; Oswald and Ainsworth 2010: 46–50) (Figure 6). Here, the well-known 'Main Rock' has been much reduced in size by medieval or later quarrying, but still displays an integrated complex of several conventional cup-and-ring marks, all carefully placed with regard to the microtopography of the rock surface (and thus suggestive of embellishment rather than imposition) as is the case with most complex cup-and-ring panels, together with one area of cup marks that may have been decorated following the detachment of a cist-slab. In the surrounding landscape are numerous further examples of cup-marked and cup-and-ring-marked panels, none of which approach the Main Rock in terms of complexity. Several seem to be linked with burial mounds of presumed Early Bronze Age date. Some are prominent outcrops, while others are low bedrock exposures that would rapidly have been covered by vegetation if not actively managed. The motifs on the latter were presumably not intended for long-term public display; perhaps, for these panels, the process of producing the motifs was much more important than the resulting product. Collectively, the Lordenshaw rock art displays great variety in form, in some cases seemingly inspired by and incorporating natural hollows and grooves. Indeed, there is a cluster of apparently natural hollows at the highest point of Main Rock, which could potentially have provided inspiration for the first artificial motifs. The same is true of other Northumberland sites, including Roughting Linn (Figure 7) and Old Bewick; surely this cannot be coincidental? The motifs at Lordenshaw could have been created over many generations, potentially for different reasons. It is possible that some complex panels 'tell stories', akin to some Australian aboriginal abstract art, but I suspect (and I know Stan Beckensall agrees) that much of the variation in motifs is due to what we might today call artistic licence, of little, if any, interpretive significance. Nevertheless, landscapes such as Lordenshaw, where different styles of rock art are found in a range of contexts, offer huge potential for future study.

Figure 6. A great variety of rock art, consisting of cup marks, cup-and-ring marks and curvilinear grooves, can be seen at Lordenshaw (Northumberland).

Connotation

The search for 'meaning'

'In no American Indian language is there any single word or term that could be translated as "religion", as there is no single term for what we refer to as "art"' (Brown 1982: 2). This, I strongly suspect, was also the case in Neolithic Britain. Consequently, any attempt to ascribe 'meaning' to cup-and-ring marks as 'religious art' must be attempted with extreme caution and may be entirely misguided. Here, rather than 'meaning', I have opted to use the word 'connotation', in the sense of 'a feeling or idea suggested or implied by an object or situation'; specifically, in this context, a feeling or idea suggested by cup-and-ring marks.

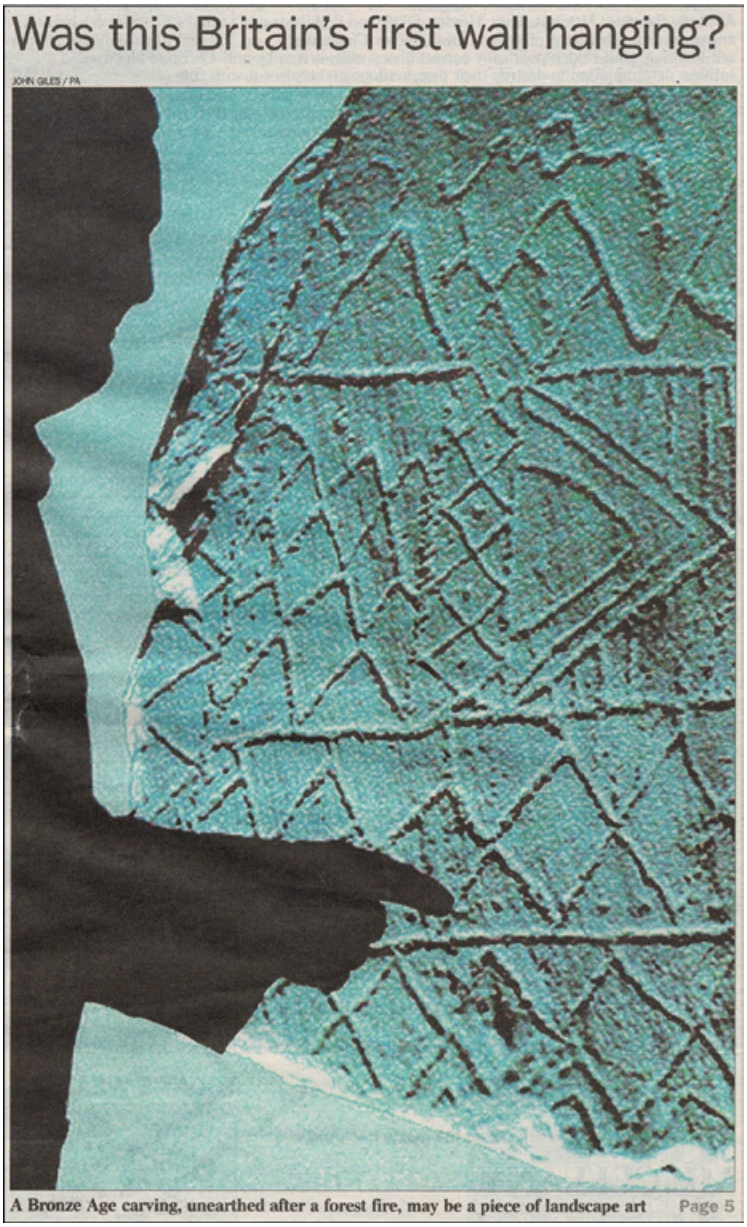
I doubt we would be capable of fully comprehending cup-and-ring marks, even if a Neolithic person were present (with interpreter) to explain them to us. A key problem with previous attempts to discover 'meaning' is an obsession with a quest for a simple, universal explanation. This is apparent not only in Ronald Morris's 104 theories, but also in more recent accounts, some of which may appear reasonable but which I believe miss the point that any search for meaning, in terms of modern ways of being, is probably futile.

To illustrate some particularly poor interpretation, I will diverge briefly from cup-and-ring art. In April 2004, following a severe wildfire on Fylingdales Moor, North Yorkshire, I was privileged to be the first person in probably more than 4000 years to see part (albeit just a small part) of an extraordinary decorated slab set within a cairn (Brown and Chappell 2012: 64–67). Shortly after its discovery, in response to unfortunate though well-intentioned digging by a member of the public, an excavation of a small part of the cairn was undertaken (Vyner 2011), exposing the entire slab, and further decorated stones. (Unfortunately, the remit did not permit further investigation to obtain information relating to the structure and chronology of the monument.) Several months later, on the day of the winter solstice 2004, I was initially delighted to see the front page of *The Times* newspaper half-filled with a colour image of the decorated slab (Figure 8), but then dismayed by the associated article which informed the nation that it depicts a landscape with clouds, a mountain range and field boundaries, and that it 'could once have been hanging on the wall of a Bronze Age farmer.' George Tate would, I'm sure, have found this interpretation risible. It is unfortunate, given the opportunity to say something infinitely more interesting, that such nonsense was fed to *The Times* and thus presented to the nation. An admission that

Figure 7. Two views of Roughting Linn (Northumberland), clearly showing the apparently natural erosion on the highest point of the outcrop. Drone image: Richard Carlton.

even the 'experts' don't know, perhaps coupled with a few reasonable suggestions, would have been far more appropriate.

It is by no means an admission of failure to say that we do not (and will never) know for sure the original purpose of cup-and-ring marks. Indeed, as Stan Beckensall (2009: 75) observes, 'our confession of ignorance is perhaps the beginning of wisdom'. Such a confession respects the fact that Neolithic people, like Native Americans of more recent times, had complex spiritual lives fundamentally different from those of the modern Western world. Joseph Epes Brown makes this point very eloquently in seeking to explain mysticism within


Was this Britain's first wall hanging?

JOHN GILES / PA

A Bronze Age carving, unearthed after a forest fire, may be a piece of landscape art Page 5

Figure 8. It was great to see rock art featured on the front page of The Times *(21 December 2004), though the headline and caption are unfortunate. (Reproduced courtesy of* The Times*).*

Native American spiritual tradition. Whereas this can appear to outsiders as '...a vague quality of some supernatural experience that spontaneously comes to individuals whom Providence has allowed to live close to nature', he stresses that:

> Such mystical experiences are first of all prepared for, and conditioned by, lifelong participation in a particular spoken language that bears sacred power through its vocabulary, structure, and categories of thought, and serves as a vehicle for a large body of orally transmitted traditions, all the themes of which also express elements of the sacred.

Furthermore:

> Such mystic experiences become more available to those persons who have participated with intensity and sincerity in a large number of exacting rites and ceremonies that have been revealed through time, and that derive ultimately from a transcendent source. (Brown 1982: 84)

Perhaps cup-and-ring marks relate in some way to such a 'transcendent force'; something that could not be understood, never mind fully appreciated, in the modern world. Stan Beckensall is aware of this; it is why he often prefers to express his views in poetry than in prose, stating 'I write poems because they have the power to express what I feel about the power of place. Poetry has a music that conveys feeling as well as sense' (Beckensall 2017: 64). The poem from which this volume takes its title (Beckensall 2019: 67–68) ends with the lines:

> Some images appeared on standing stones, singly, or in circles, lines.
> Some found their way to burial mounds
> All seemed to bring down sun and moon and stars to earth
> And place Man at the centre of a universe
> Yet reminding him of his dependence on the gods.

This brings me back to the question of 'connotation'. What 'feelings' and 'sense' were generated by cup-and-ring marks for those who made and experienced them in the Neolithic and Early Bronze Age?

We tend to assume that symbols functioned in a similar way in prehistory as they do for us today, representing things or concepts that can be described using words. But such assumptions are dangerous. Joseph Epes Brown observes that the concept of a symbol representing something other than itself is incomprehensible within Native American tradition. Rather, 'meanings generally are intuitively sensed and not secondarily interpreted through analysis; there tends to be a unity between form and idea or content. ... Here, the "symbol" *is*, in a sense, that to which it refers.' (Brown 1982: 55). Similarly, he explains that 'to the Plains Indians the symbol is not thought of as representing some *other* and higher reality, but *is* that reality in an image ... there is no need,

as with modern Western people, for any mental or artificial "reconstruction".' (Brown 1982: 32).

Perhaps the main problem here is our use of the word 'symbol'. 'Motif', without the implied assumption that 'something else' is being symbolised, is a far more appropriate term. Cup-and-ring marks, as abstract motifs, may have borne their own messages or powers, perhaps latently (and accessible via rites or prayers), but without the need for any kind of translation. Indeed, they may always have represented 'complex relationships and concealed truths which have not received verbal expression' (Rennie 1996: 54). (It is worth noting in passing that any 'verbal expression' associated with the motifs may in itself have been potent in a way incomprehensible to us; in traditional Native American society, spoken words, and even unspoken thoughts, can have great potency in themselves, rather than simply relating to things or ideas as with modern Western languages.) Further interpretive complications arise from the possibility that some complex cup-and-ring panels were always regarded as 'works in progress', effectively linking and past and future while creating, through their ambiguity, a kind of 'neurological trick' combining 'cognitive indecipherability' with the activation of the imagination (Cochrane *et al.* 2015: 886).

A few years ago, Stan Beckensall (2009: ch. 3) published a fascinating overview of the development of his own thinking about the 'meaning' of rock art. When I asked him recently if he could pinpoint any aspects of cup-and-ring marks that he felt were fundamental to their interpretation, he replied immediately: 'The centre. They're all about the centre, and maybe also a distinction between "inside" and "outside".' A few moments later, he added 'and death. I think they're also a lot to do with death'. I agree with him on all counts but would question the extent to which these were entirely separate concepts in the Neolithic mind, as they are for us. Indeed, our subconscious obsession with defining and categorising 'separate' things would, I suspect, have been alien to the people who made Atlantic rock art. I will consider this briefly, before returning to the issue of 'the centre'.

Joseph Epes Brown stresses the interrelatedness of everything in Native American culture, a concept which could well be relevant to cup-and-ring marks:

> Unlike the conceptual categories of Western Culture, American Indian traditions generally do not fragment experience into mutually exclusive dichotomies, but tend rather to stress modes of interrelatedness across categories of meaning, never losing sight of an ultimate wholeness. Our animate-inanimate dichotomy, or our categories of animal, vegetable, and mineral, for example, have no meaning for the Indian, who sees that all that exists is animate, each form in its own special way, so that even rocks have a life of their own and are believed to be able to talk under certain conditions ... This mode of interrelatedness may be seen in the Lakota's discernment of a certain unity underlying that which we perceive generally as very different kinds of beings or phenomena. For example, spiders, elks, bisons, birds, flying insects, and even cottonwood trees have a unifying element, for all these manifest certain relationships to the wind or breath. There is, in fact, a qualitative and comprehensive science of the winds among these peoples that has as its ultimate unifying principle the understanding that as the wind moves or exerts power over the forms of nature and yet in itself is unseen, so it is with the Great Mysterious whose unseen presence gives life and movement to all that is. (Brown 1982: 54–55)

Brown's mention of our modern 'animate-inanimate dichotomy', and the irrelevance of this to Native American tradition, leads inevitably to considerations of animism. This is a complex field (Harvey 2017; Ingold 2000: ch. 6, 2006), detailed consideration of which is not possible here; it is certainly not as simple as believing that stones are 'alive'. With specific regard to British rock art, Andrew Jones has recently stressed the potential relevance of animism:

> The motifs do not stand apart from the rock surfaces on which they are carved. Instead they appear to be interwoven with rock surfaces; the properties of the rock impinge upon or suggest themselves to the carver, and many designs meander between fissures and other irregularities on the rock surface, binding motif to rock. Rather than thinking of the rock art being carved *on* the rock, it is perhaps more appropriate to think of the rock art being carved *with* the rock. (Jones *et al.* 2011: 331. My italics).

He further suggests that 'the rocks are themselves treated as equal entities in the carving process, potentially as animate entities.' Such a mindset is impossible for us to fully appreciate today but is, I think, fundamental to the nature of cup-and-ring marks.

The Centre

I will now consider the issue of 'the centre', which, as noted above, Stan Beckensall considers a key concept within cup-and-ring art. Here, I turn to the great authority on ancient religion, Mircea Eliade. Although his work is generally regarded nowadays, not without good reason, as old-fashioned, many of his publications remain essential reading for students of ancient religion (Rennie 1996), and some are certainly of potential value to the subject in question. In several publications (e.g.,

Eliade 1954: 12–21, 1959: ch. 1, 1961: ch. 1, 1997 ch. III/I) he stresses the absolutely fundamental nature of 'the centre' in ancient religions throughout the world. This can be both a very simple and quite complex concept to grasp. It is 'pre-eminently the zone of the sacred, the zone of absolute reality' (Eliade 1954: 17). It can exist in a variety of forms, such as a sacred mountain, a temple, or a 'cosmic tree' (or 'tree of life'), and functions as an *axis mundi* – linking the cosmic regions of heaven, earth and hell. Not only does it enable the transformation of profane space into transcendent space, but it can also provide a link between 'concrete time' and 'mythical time', a fundamental aspect of many traditional ceremonies. A 'quest for the centre', involving an arduous journey, perhaps to a pilgrimage site, features in many religions. Eliade (1958: 381) suggests that this provides an ultimate origin for labyrinths and mazes, found in various contexts throughout the world, and to which cup-and-ring marks have occasionally been compared (Hadingham 1974: 98–104).

Eliade (1959: 37) develops these observations into what he terms the 'system of the world', which he believes to be prevalent in 'traditional societies'. The 'centre' (in whatever form) constitutes a break in the homogeneity of space, enabling passage from one cosmic region to another. This is represented by 'one or other of certain images, all of which refer to the axis mundi', and around this cosmic axis lies our world; hence the axis may be considered as the 'navel of the world', or even 'the centre of the universe'. He further informs us that:

> The multiplicity, or even the infinity, of centres of the world raises no difficulty for religious thought. For it is not a matter of geometrical space, but of an existential and sacred space that has an entirely different structure, that admits an infinite number of breaks and hence is capable of an infinite number of communications with the transcendent. (Eliade 1959: 57)

Joseph Epes Brown stresses the significance of the centre, and of the circle, within Native American spirituality. The circle could serve to protect people from the 'indefiniteness of space' – recalling Stan Beckensall's observation regarding 'inside' and 'outside'. The sacred space defined by a circle could relate to models of the universe, the world, or of individual people, fundamental to all of which was the centre, 'for without such ritual fixing of a center there can be no circumference. And with neither circumference nor center where does a person stand?' (Brown 1982: 38). This ceremonial centre (which could be a teepee, a ceremonial monument, or even a sacred mountain) is at one level an arbitrary point, but is also understood as the centre of everything, an *axis mundi* that could link different worlds. As Eliade stresses, this is not just an American concept, but occurs in a bewildering variety of forms throughout the world. It may be why so many Neolithic monuments were circular and could well be of relevance to cup-and-ring marks.

Something of the supreme significance of the circle may be gleaned from the wisdom of Black Elk:

> Everything an Indian does is in a circle, and that is because the Power of the World always works in circles, and everything tries to be round. In the old days when we were a strong and happy people, all our power came to us from the sacred hoop of the nation, and so long as the hoop was unbroken, the people flourished. The flowering tree was the living centre of the hoop ... Everything the Power of the World does is in a circle. The sky is round, and I have heard that the earth is round like a ball, and so are all the stars. The wind, in its greatest power, whirls. Birds make their nests in circles, for theirs is the same religion as ours. The sun comes forth and goes down again in a circle. The moon does the same, and both are round. Even the seasons form a great circle in their changing, and always come back to where they were. The life of a man is a circle from childhood to childhood, and so it is in everything where power moves. Our teepees were round like the nests of birds, and these were always set in a circle, the nation's hoop, a nest of many nests, where the Great Spirit meant for us to hatch our children. (Neihardt 2014: 121)

Joseph Epes Brown notes that 'At the centre of the circle ... is a human person. Without the awareness that they bear within themselves this sacred centre, human beings are in fact less than human' (Brown 1982: 26). He explains that 'the virtual reality of this center' is recalled by various rites based on the cross within the circle. Might a cup mark within a circle be of comparable significance?

The centre of time?

Can we go any further regarding the possible significance of cup-and-ring marks, without falling into the traps noted earlier? I think perhaps we can, though we must tread carefully. I have long thought that they must in some way embody that curious phenomenon we call 'time'. Today, our short-sighted and blinkered view of time makes it very difficult for us to appreciate the very different ways in which it could have been comprehended by Neolithic people. It is possible that time is, in some way, fundamental to the cup-and-ring mark: perhaps the cup mark is the 'centre of time', a concept incompatible with our linear notion of historic time, but entirely feasible if time is regarded as cyclical, as it most surely was in the

Neolithic. Indeed, the idea of a centre may be regarded as fundamental to notions of cyclical time. Seasonal ceremonies may represent and celebrate change, but such change 'is only possible and meaningful in its relationship to the changeless, which is the very center of every circle or cycle' (Brown 1982: 90). It is probable, in my view, that cup-and-ring marks conflated the concepts we label as 'space' and 'time'. Eliade (1997: 116) notes that some Native American languages use their words for 'world' or 'earth' to imply 'year'. Thus, a phrase such as 'the world has died' might be used to imply the end of a year. Such spacio-temporal logic may well have been prevalent in Neolithic Britain.

Native American myths take place in sacred time, linking ancestors and spirits to landmarks in the natural world. They are frequently expressed through ceremonial acts, many linked to the seasonal round. They do not take place in the distant past but are ever-present; creation did not occur out of nothing at the beginning, but is constantly occurring and recurring, linked to other mysterious cyclical processes such as those associated with the seasons and the moon. Joseph Epes Brown explains:

> Events or processes transmitted through oral traditions tend not to be recounted in terms of time past or time future in the linear sense. Indeed, most Native American languages do not have past and future tenses; they reflect rather a perennial reality of the now. (Brown 1982: 37)

Perhaps some places in Neolithic Britain were embellished with cup-and-ring marks to celebrate and enhance comparable mythical links, existing outside space and time, between people, ancestors and spirits.

Several years ago, in a paper about the spiral in Neolithic Britain, I discussed the symbolism of the spiral amongst the Zuni people in the American south-west, referencing work by M. Jane Young (Frodsham 1996: 133; Young 1988). Young observes that the most common Zuni interpretation of the spiral was as the 'journey in search of the Center'. This could relate both to creation mythology and to the progress of individual lives. It is possible that similar thinking (by no means incompatible with the ideas discussed above regarding animism, the centre, and vision quests) underlay the development and popularity of the cup-and-ring mark in Neolithic Britain. Perhaps this was a sufficiently simple yet profound idea for it to have been appreciated throughout those areas in which cup-and-ring art is found. For all the reasons discussed above, in suggesting it as a possible interpretation of cup-and-ring marks, I will be wrong. But the extent of this wrongness is, I like to think, open to debate.

Death

Finally in this section, recalling Stan's linkage of cup-and-ring marks with death, I will briefly consider the use (and re-use) of cup-and-ring marks in funerary contexts. This is a complex subject with many examples inviting a range of potential interpretations (Beckensall and Frodsham 1998; Bradley 1992, 1997: ch. 9; Burgess 1990; Evans and Dowson 2004; Simpson and Thawley 1972). Here, I would like to highlight a little-known site in County Durham: Fulforth Farm, Witton Gilbert, 4km north-west of Durham City. The site was excavated in 1996 (Baker and Wright 2009) and found to be quite complicated; geophysics suggested several further adjacent features in a potentially extensive cemetery complex. The relevance of the site to this discussion lies in the splendid capstone (Figure 9) that overlay a cist. This seems to have been quarried from a cup-marked outcrop, after which its freshly quarried face was profusely decorated with cup-and-ring marks before being set facing downwards into the cist. It seems reasonable (despite the caution exercised in the excavation report) to equate the production of these motifs with the radiocarbon date of 2200–1960 cal BC provided by charcoal from the cist, thus making this the only scientifically dated cup-and-ring-marked panel in England. The heavily eroded cup marks on the slab's upper surface could have been produced at the same time if the upper surface was subsequently left exposed to the elements, but this seems unlikely; they are probably appreciably older, perhaps by several centuries. It may be significant that the cup-and-ring marks have no gaps or channels; the central cups are effectively sealed in by their surrounding rings, in contrast to typical open-air examples where cups are commonly accessible via a channel of some form. Is this of no real consequence, or were 'closed' cup-and-ring motifs thought more appropriate for a panel produced specifically for a funerary context? Perhaps we should not read too much into this as the nearest comparable (probable) cist slab to Witton Gilbert, from around 30km to the south at Gainford (Beckensall and Laurie 1998: 87), has heavily eroded and complex cup-and-ring art (with radial grooves) on one side, with fresh cup marks and no rings on the other. It would seem that there were no simple rules governing the ways in which cup-and-ring marks were incorporated into Early Bronze Age graves in County Durham. And what significance are we to read into the numerous cup-marked cobbles deposited at Bronze Age burial sites throughout north-east England and elsewhere (Carlton, this volume)?

It has become standard practice to assert that the symbolism of Atlantic rock art in Early Bronze Age burials, whether re-used or specially created, was very different to that of (presumably older) open-air carvings on bedrock or boulders. But it is quite possible that the original connotation of cup marks and cup-and-ring marks remained valid to some extent. If the

Figure 9. The underside of the splendid capstone from the Fulforth Farm cist. Its contrasting upper side displays 31 cup marks, with no rings, and is heavily weathered. (Maximum dimensions 117 × 70 × 14cm).

cup mark, with or without rings, somehow related to 'the centre', as discussed above, then what could be more appropriate to inter with the dead?

Conclusions

It will come as no surprise, given this paper's subject matter, that its conclusions are far from conclusive. Cup-and-ring marks undoubtedly relate to the spiritual lives of the people who made them. But those people's spiritual lives were indistinguishable, to them, from their everyday lives that we claim to be able to study with confidence through conventional archaeological enquiry. If nothing else, I hope I have demonstrated that in order to think constructively about Neolithic rock art and Neolithic spirituality, and therefore Neolithic lives, we need to set ourselves completely free from our twenty-first century Western mindset. I believe that traditional Native American cosmology offers very useful opportunities that it would be foolish to ignore when attempting such studies.

Attempted interpretations of Atlantic rock art as signposts, territorial markers, maps, or 'landscape art' are misguided. As I hope I have demonstrated, cup-and-ring marks need not be symbolic of anything other than themselves; perhaps they just are. In other words, rather than being *about* a thing, perhaps they *are* the thing (Cochrane 2012: 180). If they do represent something, then that something could well be everything. Our obsession with dividing things into categorical silos was almost certainly alien to Neolithic thinking which, like the Native American mindset, probably tended to stress relationships between all beings, forms and powers, whether these be animate or inanimate according to Western convention. As explained by Joseph Epes Brown:

> In Native American thought, no such hard dichotomies exist. All such forms under creation are understood to be mysteriously interrelated. Everything is relative to every other being or thing; thus, nothing exists in isolation. (Brown 1982: 39)

And similarly:

> In the Native American world there generally obtains what may be called a unity in experience, wherein actions of all orders serve as supports for contemplation, for the sacred is understood to be mysteriously present within all forms of the phenomenal world as well as within all modes of action. It is perhaps this most important non-dualistic mode of experiencing and being that is very difficult for the non-Indian Western mind to comprehend. (Brown 1982: xv)

As discussed above, Andrew Jones has stressed these points with specific regard to cup-and-ring marks at Kilmartin:

> At a fundamental level I believe that the rock art of the Kilmartin region informs us that the conceptual division between nature and culture was of no real

> significance during the period in which the motifs were carved … the texture of the rock is worked into motifs, and the design is not imposed; it arises from a process of interaction between human and rock … there is a close interweaving between rock texture and motif, which—at the very least—is suggestive of a blurring between the categories that we presently describe as nature and culture. (Jones *et al.* 2011: 325–326)

I have no doubt that the appreciation of complex animic ontologies (see also Jones 2012; Wallis 2009, 2013), ideally coupled with a phenomenological approach to individual sites as advocated by Christopher Tilley (e.g. 2004, 2008), has much to offer the study of Atlantic rock art. Other non-conventional (to the modern Western mind) ways of thinking may also prove useful. I suspect, for example, that the Japanese concept of 'ma', within which the spaces between things are no less important, and in some cases more so, than the things themselves, may have value (though I have yet to work out quite how, and probably never will). It is also important to remember that cup-and-ring marks could 'express rather than represent', and that they could be, in part, 'images about image making', 'concerned with what carving *does* rather than what it means' (Cochrane *et al.* 2015: 887–888).

I believe that many of our cup-and-ring sites relate to what we might term 'mystical' experience, perhaps closely comparable to the Native American vision quest. Proving or disproving this will not be easy. The many different contexts within which cup-and-ring marks occur imply that there can be no simple all-encompassing interpretation, though I do think that the basic concept of 'the centre' is probably fundamental in all cases. We certainly need more excavations, designed to (re)integrate rock art into the prehistoric societies and landscapes within which it was made and used (Waddington, this volume), but the results of such fieldwork should be interpreted within the context of the above discussion, and not with the aim of somehow 'solving' once and for all the cup-and-ring conundrum, which is ultimately unsolvable.

In the wise words of Black Elk:

> Peace … comes within the souls of men when they realize their relationship, their oneness, with the universe and all its Powers, and when they realize that at the centre of the universe dwells *Wakan-Tanka*, and that this centre is really everywhere, it is within each of us. (Brown 1953: 115)

Could such thinking be in some way relevant to cup-and-ring marks? Even, perhaps, to the transcendence I experienced on Craig Hill, as outlined at the very start of this paper? I like to think so.

Stan Beckensall (2009: 69) has written that 'there is no doubt in my mind that, despite what I don't know, these symbols were very important in the lives of prehistoric people. They would at once trigger a response from those who saw or touched them'. Those prehistoric people surely wondered at the ultimate mysteries of life and consciousness, of infinity and eternity, and sought answers within the contexts of their lives as we do within ours. Cup-and-ring marks must relate in some way to these mysteries and, while we must always follow Stan's lead in acknowledging what we don't know, I hope that through the kind of thinking outlined above we may be able to approach a more satisfying appreciation of them. Although we must accept that we will never fully understand their significance to those who made them, I suspect that George Tate, in his use of the term 'emblems of eternity', was not very far wide of the mark.

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References

Baker, F. and J. Wright. 2009. Excavation of a Late Neolithic burial site at Fulforth Farm, Witton Gilbert, County Durham. *Durham Archaeological Journal* 18: 1–21.

Beckensall, S. 2001. *Prehistoric Rock Art in Northumberland*. Stroud: Tempus.

Beckensall, S. 2006. *Circles in Stone. A British Prehistoric Mystery*. Stroud: Tempus.

Beckensall, S. 2009. *Prehistoric Rock Art in Britain.* Stroud: Amberley.

Beckensall, S. 2017. *The Heart of It.* Hexham: Robson Print Ltd.

Beckensall, S. 2019. *Green Man and Other Poems.* Hexham: Robson Print Ltd.

Beckensall, S. and P. Frodsham. 1998. Questions of chronology: the case for Bronze Age rock art in Northern England. *Northern Archaeology* 15/16: 51–69.

Beckensall, S and T. Laurie. 1998. *Prehistoric Rock Art of County Durham, Swaledale and Wensleydale.* Durham: County Durham Books.

Bradley R. 1992. Turning the world – rock-carvings and the archaeology of death, in N. Sharples and A. Sheridan (eds) *Vessels for the Ancestors. Essays on the Neolithic of Britain and Ireland*: 168–176. Edinburgh: Edinburgh University Press.

Bradley, R. 1997. *Rock Art and the Prehistory of Atlantic Europe. Signing the Land*. London: Routledge.

Bradley, R. 2009. *Image and Audience. Rethinking Prehistoric Art*. Oxford: Oxford University Press.

Bradley, R. and A. Watson. 2012. Ben Lawers: carved rocks on a loud mountain, in A. Cochrane and A.M. Jones (eds) *Visualising the Neolithic*: 64–78. Oxford: Oxbow Books.

Bradley, R. and A. Watson. 2019. Found architecture: interpreting a cup-marked outcrop in the southern Highlands of Scotland. *Time and Mind* 12(1): 3–31.

Bradley, R., A. Watson and H. Anderson-Whymark. 2012. Excavations at four prehistoric rock carvings on the Ben Lawers Estate, 2007–2010. *Proceedings of the Society of Antiquaries of Scotland* 142: 27–61.

Brown, E., M.B. Weatherly and M.O. Fitzgerald. 2007. Editors' preface, in J.E. Brown *The Spiritual Legacy of the American Indian.* (2007 Commemorative Edition with *Letters While Living with Black Elk*). Bloomington: World Wisdom Inc.

Brown, J.E. (ed). 1953. *The Sacred Pipe. Black Elk's Account of the Seven Rites of the Oglala Sioux.* (Seventh edition, 1989). Oklahoma: University of Oklahoma Press.

Brown, J.E. 1982. *The Spiritual Legacy of the American Indian.* (2007 Commemorative Edition with *Letters While Living with Black Elk*). Bloomington: World Wisdom Inc.

Brown, L.D., K. Boughey, D. Paley, D. Spencer, J. Croasdale, D. Hallam and J. McIlwaine. 2013. *Stanbury Hill Project. Archaeological Investigation of a Rock Art Site.* Bingley: Bingley & District Local History Society.

Brown, P. and G. Chappell. 2012. *Prehistoric Rock Art in the North York Moors.* (Revised edition). Stroud: History Press.

Bruce, J. 1896. Notice of remarkable groups of archaic sculpturings in Dumbartonshire and Stirlingshire. *Proceedings of the Society of Antiquaries of Scotland* 30: 205–209.

Burgess, C. 1990. The chronology of cup-and-ring marks in Britain and Ireland. *Northern Archaeology* 10: 21–26.

Cochrane, A., A.M. Jones and K. Sogness. 2015. Rock art and the rock surface: Neolithic rock art traditions of Britain, Ireland, and northernmost Europe, in C. Fowler, J. Harding and D. Hofmann (eds) *The Oxford Handbook of Neolithic Europe*: 871–893. Oxford: Oxford University Press.

Council for Scottish Archaeology. 2006. *Discovery and Excavation in Scotland 2005.* (New series, Volume 6).

Darvill, T.C. 2002. White on blonde: quartz pebbles and the use of quartz at Neolithic monuments in the Isle of Man and beyond, in A. Jones and G. MacGregor (eds) *Colouring the Past: The Significance of Colour in Archaeological Research*: 73–91. Oxford: Berg.

Deacon, V. 2020. *The Rock-Art Landscapes of Rombald's Moor, West Yorkshire. Standing on Holy Ground.* Oxford: Archaeopress.

Dickson, W. 1858. Rothbury and its Saxon cross. *History of the Berwickshire Naturalists' Club* 4: 66–75.

Eastman, C.A. 1911. *The Soul of the Indian*. 2003 edition. New York: Dover Publications.

Edwards, G. and R. Bradley. 1999. Rock carvings and Neolithic artefacts on Ilkley Moor, West Yorkshire, in R. Cleal and A. MacSween (eds) *Grooved Ware in Britain and Ireland*: 76–77. Oxford: Oxbow Books.

Eliade, M. 1954. *The Myth of the Eternal Return. Cosmos and History.* 2005 edition. Princeton: Princeton University Press.

Eliade, M. 1959. *The Sacred and the Profane. The Nature of Religion.* New York: Harcourt.

Eliade, M. 1961. *Images and Symbols. Studies in Religious Symbolism*. London: Harvill.

Eliade, M. 1997. *Symbolism, the Sacred, and the Arts.* (Edited by D. Apostolos-Cappadone). New York: Continuum.

Evans, E. and T.A. Dowson. 2004. Rock art, identity and death in the early Bronze Age of Ireland and Britain, in V. Cummings and C. Fowler (eds) *The Neolithic of the Irish Sea. Materiality and traditions of practice*: 103–112. Oxford: Oxbow Books.

Fowler, C. and V. Cummings. 2003. Places of transformation: building monuments from water and stone in the Neolithic of the Irish Sea. *Journal of the Royal Anthropological Institute* 9: 1–20.

Frodsham, P. 1996. Spirals in time: Morwick Mill and the spiral motif in the British Neolithic, in P. Frodsham (ed.) *Neolithic Studies in No-Man's Land. Northern Archaeology* (special edition) 13/14: 101–138.

Frodsham, P. 2006. *In the Valley of the Sacred Mountain. An Introduction to Prehistoric Upper Coquetdale, 100 Years after David Dippie Dixon*. Newcastle upon Tyne: Northern Heritage.

Frodsham, P. 2007. The phallic explanation. A late nineteenth-century solution to the cup-and-ring conundrum, in C. Burgess, P. Topping and F. Lynch (eds) *Beyond Stonehenge. Essays on the Bronze Age in Honour of Colin Burgess*: 31–37. Oxford: Oxbow Books.

Hadingham, E. 1974. *Ancient Carvings in Britain: A Mystery*. London: Garnstone Press.

Hampson, J. 2013. The materiality of rock art and quartz: a case study from Mpumalanga Province, South Africa. *Cambridge Archaeological Journal* 23(3): 363–372.

Harvey, G. 2017. *Animism. Respecting the Living World*. (Second edition). London: Hurst & Company.

Ingold, T. 2000. *The Perception of the Environment. Essays in Livelihood, Dwelling and Skill.* London: Routledge.

Ingold, T. 2006. Rethinking the animate, re-animating thought. *Ethnos* 71(1): 9–20.

Johnston, S. 1991. Distributional aspects of prehistoric Irish petroglyphs, in P. Bahn and A. Rosenfeld (eds) *Rock Art and Prehistory*: 86–95. Oxford: Oxbow Books.

Johnston, S. 1993. The relationship between prehistoric Irish rock art and Irish passage tomb art. *Oxford Journal of Archaeology* 12: 257–279.

Jones, A.M., D. Freedman, B. O'Conner, H. Lamdin-Whymark, R. Tipping and A. Watson. 2011. *An Animate Landscape. Rock Art and the Prehistory of Kilmartin, Argyll, Scotland*. Oxford: Windgather Press.

Jones, A.M. 2012. Living rocks: animacy, performance and the rock art of the Kilmartin region, Argyll, Scotland, in A. Cochrane and A.M. Jones (eds) *Visualising the Neolithic*: 79–88. Oxford: Oxbow Books.

MacKie, E.W. and A. Davis. 1991. New light on Neolithic rock carving: the petroglyphs at Greenland (Auchentorlie), Dunbartonshire. *Glasgow Archaeological Journal* 15: 125–155.

Morris, R.W.B. 1979. *The Prehistoric Rock Art of Galloway & the Isle of Man*. Poole: Blandford.

Neihardt, J.G. 2014. *Black Elk Speaks. The Complete Edition.* Lincoln: University of Nebraska Press (Bison Books).

O'Connor, B. 2006. Inscribed Landscapes: Contextualising Prehistoric Rock Art in Ireland. Unpublished PhD dissertation, University College Dublin.

Oswald, A. and S. Ainsworth. 2010. The Northumberland and Durham Rock Art Project, in T. Barnett and K. Sharpe (eds) *Carving a Future for British Rock Art. New Directions for Research, Management and Presentation*: 37–56. Oxford: Oxbow Books.

Rennie, B.S. 1996. *Reconstructing Eliade. Making Sense of Religion.* Albany: State University of New York Press.

Reynolds, F. 2009. Regenerating substances: quartz as an animistic agent. *Time and Mind* 2(2): 153–166.

Shee Twohig. E. 2012. Inside outside: visualising culture at Loughcrew Co. Meath, in A. Cochrane and A.M. Jones (eds) *Visualising the Neolithic*: 125–139. Oxford: Oxbow Books.

Shee Twohig, E., C. Roughley, C. Shell, C. O'Reilly, P. Clarke and G. Swanton. 2010. Open-air rock art at Loughcrew, Co. Meath. *The Journal of Irish Archaeology* XIX: 1–28.

Simpson, D.D.A. & J.E. Thawley. 1972. Single-grave art in Britain. *Scottish Archaeological Forum* 4: 81-104.

Tate, G. 1865. *The Ancient British Sculptured Rocks of Northumberland and the Borders, with Notices of the Remains Associated with these Sculptures*. Alnwick: Henry Hunter Blair. (Previously published in *Proceedings of the Berwickshire Naturalists' Club* 5 (1864): 137–179.)

Tilley, C. 2004. *The Materiality of Stone. Explorations in Landscape Phenomenology 1*. Oxford: Berg.

Tilley, C. 2008. *Body and Image. Explorations in Landscape Phenomenology 2*. Walnut Creek: Left Coast Press.

Valdez-Tullett, J. 2019. *Design and Connectivity. The Case of Atlantic Rock Art.* (British Archaeological Reports International Series 2932). Oxford: BAR Publishing.

Vyner, B.E. 2011. A new context for rock art: a Late Neolithic and Early Bronze Age ritual monument at Fylingdales, North Yorkshire. *Proceedings of the Prehistoric Society* 77: 1–23.

Vyner, B.E. 2013. The Tortie Stone revisited. *Transactions of the Cumberland and Westmorland Antiquarian and Archaeological Society* 3rd Series 13: 17-32.

Waddington, C. 2007. Cup and rings and passage grave art: insular and imported traditions? In C. Burgess, P. Topping and F. Lynch (eds) *Beyond Stonehenge. Essays in Honour of Colin Burgess*: 11–19. Oxford: Oxbow Books.

Waddington, C., B. Johnson and A. Mazel. 2005. Excavation of a rock art site at Hunterheugh Crag, Northumberland. *Archaeologia Aeliana* 5th Series 34: 29–54.

Wallis, R.J. 2009. Re-enchanting rock art landscapes: animic ontologies, nonhuman agency and rhizomic personhood. *Time and Mind* 2(1): 47–70.

Wallis, R.J. 2013. Animism and the interpretation of rock art. *Time and Mind* 6(1): 21–28.

Whitely, D.S., R.I. Dorn, J.M. Simon, R. Rechtman, and T.K. Whitely. 1999. Sally's Rockshelter and the archaeology of the vision quest. *Cambridge Archaeological Journal* 9(2): 221–247.

Young, M.J. 1988. *Signs from the Ancestors. Zuni Cultural Symbolism and Perceptions of Rock Art*. Albuquerque: University of New Mexico Press.

12

Some thoughts on future fieldwork at open-air rock art sites

Clive Waddington

Introduction

This short paper contains some thoughts on future fieldwork approaches at British and Irish open-air rock art sites. Gaining understanding of the dating, phasing, and landscape setting of open-air 'Atlantic' (i.e., 'cup-and-ring') rock art sites, and the activities that took place around them in the British Isles remains a challenging task for archaeologists. There have been only a few dedicated excavations of open-air rock art sites. These can be divided between excavations of monuments with carvings, such as standing stones, stone circles, tombs and cairns, and those of natural rock outcrops and boulders. Given that the carvings on monuments can result from re-use of slabs quarried from previously decorated outcrops or, occasionally, may be added to surfaces as part of a monument's construction, this particular context of display and production will not be considered further in this paper which will focus primarily on outcrop and boulder sites where only limited work has yet been undertaken. Rock art in caves and rock shelters is extremely rare in Britain, and is usually dated or interpreted as belonging to earlier periods and traditions entirely separate from that of Atlantic rock art. Megalithic art is also considered a separate rock art tradition (Johnston 1993; Waddington 2007), although there are instances where it is superimposed onto Atlantic art sites, or Atlantic art is incorporated within megalithic monuments. These traditions warrant their own particular discussions. Therefore, this paper addresses only outcrop and boulder Atlantic rock art sites. Furthermore, as there has been considerable walkover survey, metric survey, high resolution 3D panel recording, visualisation and viewshed work, and geospatial statistical analysis of rock art sites in the past few decades (for some of the more recent work see Barnett and Sharpe 2010), this paper will not discuss these approaches, but will concentrate on other field prospection and intrusive investigation.

Key open-air rock art sites that have been subject to invasive field investigation are few, and include: Greenland Quarry, Dunbartonshire (MacKie and Davis 1989); Gardom's Edge, Derbyshire (Barnatt *et al.* 1996); Backstone Beck, West Yorkshire (Edwards and Bradley 1999); Drumirrel, County Monaghan Ireland (O'Connor 2003, 2006); Hunterheugh Crag, Northumberland (Waddington *et al.* 2005); Copt Howe, Cumbria (Bradley *et al.* 2019); Hawkesley Hill, County Durham (Robinson 2016); Stanbury Hill, West Yorkshire (Brown *et al.* 2013); Torbhlaren and Ormaig, Argyll (Jones *et al.* 2011); Ben Lawers, Strath Tay (Bradley and Watson 2012); and Urlar, also Strath Tay (Bradley and Watson 2019). A list of excavations on both monumental and open-air rock art sites can be found in Sharpe 2021 (Table 5.1). There is a clear need to build on this small, but important corpus of data to broaden what we know about rock art sites, as well as to refine fieldwork techniques for this very particular kind of archaeology.

There are some sites where carved outcrops and built structures/monuments are present in combination and these are of particular interest for the targeting of further fieldwork as they can provide stratigraphy that incorporates carving episodes, and they provide a biography of how carved panels were used, conceived and re-used at various points in their past. The site excavated at Hunterheugh Crag, Northumberland (Figure 1), is such an example (Waddington *et al.* 2005).

The types of field techniques that can be used to investigate outcrop rock art sites can be viewed in terms of non-intrusive/prospection and intrusive investigations, although ultimately the choice of techniques deployed, and their combination, will be dependent on the questions being asked, as well as other factors such as time, resources and expertise. A non-exhaustive list of typical questions that fieldwork might typically consider includes:

- Is it a panel, site, site cluster or rock art landscape that is of interest, or is a nested approach needed to compare information from different geographical scales?
- When were the carvings made and for how long were they of significance?
- Are distinct phases of use apparent and how widely spaced are they in time? Does the meaning/signficance seem to remain the same, or are there signs that it has changed through time?
- What activities took place on and around these sites?
- What was the landscape like at the time of the carvings, how was it being used and how did it define the context, use of and encounters with the rock art? Are there potential links with natural

Figure 1. Excavation at the Hunterheugh Crag rock art site, looking east, with recording of rock art underway following clearance of topsoil off the rock outcrop and trowelling back beyond the outcrop to the trench edge. Time and resources limited the extent of the trench on this occasion, though extending the trench further and deeper from the outcrop edge would have been desirable.

features such as springs, bogs, watercourses, waterfalls, prominent crags and so forth?

- Can the archaeological evidence inform us about the past protocols or patterns of behaviour at these sites, and could these hint towards past beliefs and cognition in relation to the rock art?
- Can the use of space on and around carved outcrops be inferred or reconstructed, and can this be used to interpret any ritualised actions, or significance at certain times of the year, or under certain light or weather conditions?
- Could panels be used for performative actions for an audience or are they positioned more for personal encounter and interaction?
- Do the carved rocks or their settings have acoustic as well as viewshed/sight line properties?
- What types of material are associated with the rock carvings? Is there patterning? Can they shed light on the types of activities, dating and significance of the carvings and can they be compared to other forms of contemporary material culture?
- How were these sites treated once the rock art was no longer 'in use'?

Non-invasive fieldwork techniques

Although a well-known prospection technique, geophysics has rarely been used at rock art sites despite the remarkable results achieved by the late Blaze O'Connor in her pioneering work at Drumirril. Here, high resolution (0.5 × 0.125m) magnetometer survey successfully identified a complex range of archaeological features, including enclosures, linear ditch features thought to be parts of field systems, pits and postholes, areas of burning, a rectangular structure and areas of past quarrying (O'Connor 2006: ch. 4). Resistivity was also deployed, however this did not work as well, mostly reflecting variation in the underlying geology. Understanding precisely how any features identified from geophysics relate to the rock art and its use is unlikely to be resolved by these techniques alone, but as a 'way in' to a given site or cluster of sites, high resolution magnetometer survey can be a valuable and informative technique. Furthermore, given that geophysical survey can be undertaken at both a micro site-based scale as well as at a large 'landscape scale' of several hundred hectares, this technique is scalable according to the questions being posed as part of the

investigation of any given panel, site or cluster of sites. Inputting geophysical data into a GIS, as with data arising from the other techniques mentioned below, allows for effective data integration, storage, analysis and display.

Other non-intrusive techniques that could be usefully deployed include magnetic susceptibility survey, which can be useful for identifying areas of past burning (Bartlett 1988; Clark 1990: ch. 4; Dalan and Bannerjee 1998) which could then be targeted for excavation. This can be quickly and easily undertaken using a hand-held device with each measurement point surveyed with a GPS unit. Similarly, the advent of portable XRF machines brings laboratory grade geochemical analysis into the field. This huge shift in technological capability has the potential to benefit archaeology by providing detailed information on the variation in geochemical readings for around 30 or so typical elements of interest with just one measurement in the field, with levels of phosphorus, zinc, copper, lead, and calcium being perhaps of most use to archaeologists (Frahm and Doonan 2013; Oonk *et al.* 2009; Schneider *et al.* 2015). Although geochemistry has been around for a long time, the speed at which the sampling can be achieved in the field combined with the speed of the analysis is revolutionary. Readings are achieved within 30–40 seconds of sampling whereas, in the past, results could take weeks or months. This means that samples can be taken in quantity to characterise large areas, whether at the scale of the site or at a landscape scale of dozens of hectares or more. This can be undertaken at the same time as the magnetic susceptibility survey, and with a single GPS measurement for the two. This economy of sampling and survey means a huge quantity of independent data can be obtained in a short field visit (Figure 2).

Although interpreting signature variation is not yet as advanced as for the interpretation of geophysical results, as more magnetic susceptibility and geochemical surveys are undertaken, at both site and landscape scale and on different geologies and followed up by excavation, the detailed insights potentially discernible from geochemical variation will improve. As with geophysics, both magnetic susceptibility and geochemical analysis are scalable and can be undertaken at a very detailed panel or site-based scale, or on a more extensive site cluster or landscape scale. Whereas the geophysics tends to locate the physical

Figure 2. Undertaking simultaneous geochemical and magnetic susceptibility survey in the field using a magnetic susceptibility meter (left hand) and a handheld pXRF machine (right hand).

remains of features themselves, and usually only those of a certain size, the geochemistry measures phenomena completely independent of magnetic response. This means it can detect signatures of past human activity that the geophysics cannot, including spaces inside and between physical features. Therefore, geophysics combined with geochemical and magnetic susceptibility survey can provide a very powerful approach for initial prospection of rock art sites and subsequent planning and targeting of excavations.

Other non-invasive methods that could be usefully deployed in the study of panels, sites, site clusters or rock art landscapes include the wide range of remote sensing techniques now available. This varied technology is rapidly advancing so that the accuracy and precision of the resulting data sets is such that even short field visits provide hitherto unmatched data and detail. Key in this regard are well-known techniques such as aerial photograph and satellite imagery analysis. However, these can now be augmented by multispectral drone-based survey which provides much more sensitive imagery, revealing crop and soil marks undetectable by the human eye or via a normal camera. This can be enhanced further with the deployment of high-resolution drone-based lidar which can now provide a resolution of up to 3cm on the horizontal axis and 5cm on the vertical. This allows very subtle surface relief to be mapped and, in theory, could even pick up rock art that may not yet have been identified. To this can be added drone-based photogrammetric survey which adds further detail to the lidar imagery. The use of thermal imagery to show variation in heat across sites and landscapes is in its infancy for archaeological use but has clear potential for helping to characterise areas of past human activity. All these techniques produce data that can be readily and accurately georeferenced allowing further scalable prospection, whether it be around a panel, site, site cluster or landscape. Deployment of remote sensing techniques, particularly when followed up by detailed site-based walkover and/or metric survey, has the potential to identify new features both above and below ground, and to help understanding of site morphology and the potential use of space and the choice of surfaces to carve, as well as to identify and map spatial or other associations with adjacent archaeological and natural features including springs, stream courses, rivers and waterfalls. The substantial multivallate bank and ditch enclosure and adjacent waterfall at Roughting Linn

Figure 3. The Roughting Linn waterfall that forms part of the enclosure circuit that is situated immediately adjacent to the carved rock outcrop, with author in image for scale.

(Figure 3) form an obvious context where such techniques could generate improved data, although this location has very dense vegetation cover across much of it, and whether lidar could 'see' through this remains to be tested (at the time of writing, experimental survey is underway here: Paul Frodsham pers. comm.)

Although a technique that involves the retrieval of artefacts, fieldwalking is included here as it is most typically used in the prospection phase of archaeological investigation. A well-established technique, it is well suited to the recovery of artefact scatters, and particularly struck lithics, on surfaces that have been ploughed. Much of the open-air rock art across the British Isles and Ireland tends to be in upland locales, or at least on the periphery of farmed areas. There are some sites, however, where ploughing takes place, either regularly or sporadically. Such cases offer significant opportunities to collect artefact scatter data either in the vicinity of, or immediately around, carved panels. As with the other forms of prospection data, each find can be accurately georeferenced with a GPS allowing for easy analysis and comparison of data sets.

Figure 4. View from the Coldmartin carved rock panel towards the upland pond and wetland at Coldmartin Lough near Wooler, Northumberland.

Where sites are located within a short distance or a few hundred metres of a pond, peat bog or wetland mire, there is significant opportunity to extract sediment samples for palaeoenvironmental analysis that could inform on the vegetation and geoarchaeological history of immediately surrounding tracts of landscape, in other words the acquisition of 'off-site' data. If environmental proxies are well-preserved, and this can be combined with high resolution radiocarbon dating of the sediment sequence, such data sets provide the opportunity to establish the environmental setting and human interactions with rock art locales over time. If subsequent intrusive excavation work can shed light on the date of the carvings' use, then this can be matched with the corresponding palaeoenvironmental records. If this can be achieved, then important information on how these sites were used and experienced could be collected. The most detailed study undertaken to date which adds significantly to understanding contemporary land use around rock art sites is that by Tipping and Verrill in the Kilmartin Valley, part of the Torbhlaren project (Jones *et al.* 2011: ch. 5). Here there was evidence for grazing from the terminal Mesolithic through the earliest Neolithic (i.e., *c.* 4300–3500 cal BC) and beyond, whilst barley was grown on and near the valley floor from *c.* 3400 cal BC with the addition of wheat *c.* 3200 cal BC. Sites which offer similar potential include Coldmartin Lough on Weetwood Moor (Figure 4), Kimmer Lough near Hunterheugh Crags, both in Northumberland, and Drumirril, County Monaghan.

Invasive fieldwork techniques

Whether used to investigate features or anomalies found by prospection techniques, or as a method for sampling the soil overburden for artefacts and the buried archaeological horizon for the presence of buried archaeological remains, test pits provide a relatively rapid technique for assessing sites via invasive work.

Test pit sizes can vary but are typically undertaken (on other types of archaeological sites or as part of prospection surveys) at 0.5m, 1m and 2m squares. By excavating test pits, a handle on the stratigraphy of a site can be quickly gained. Along with fieldwalking, this is one of the few methods available for sampling the topsoil and subsoil of areas that still have soil cover on and around outcrop sites. Collection of artefacts can then be used to infer spatial patterning of past activities and, given that most outcrop rock art is considered to be of Mesolithic, Neolithic or, occasionally, Early Bronze Age date, the potential for the survival of chipped and coarse stone tools of the same period is high. Identifying lithic concentrations, or clusters of particular artefact types can then be used to target excavation or further sampling work.

The excavation of rock art sites remains in its infancy, but the results so far indicate that it is usually highly informative. Some excavations have revealed clear stratigraphy and separate phases of carving divided by considerable time periods, as for example at Greenland (MacKie and Davis 1989) and Hunterheugh Crag (Waddington *et al.* 2005), or as recorded from surface observation at sites such as Fowberry (Bradley 1997: 140). Elsewhere, at Drumirril (O'Connor 2006), Urlar (Bradley and Watson 2019) and Torbhlaren (Jones *et al.* 2011) the importance of breaking, depositing, and in the case of Urlar, extraction, of quartz has been noted. At Drumirril (Figure 5), significant archaeological remains have been found that may relate to the use of the rock art, whilst other features relate to later phases of activity in the late Iron Age and early Christian/ medieval periods (O'Connor 2006). In Trench 2 at Drumirril, a pit was discovered together with an Early Neolithic ceramic sherd, whilst in Trench 5, positioned on the main Durmirril mound on which the rock art is focused, several stone-lined postholes were found together with pits, and a stone setting containing a stone-lined posthole with a flint scraper next to it. Trench 6, lower down the slope of the main Drumirril mound, was situated over an encircling ditch and stone-revetted enclosure bank.

Excavations at the Iron Age hillfort on Dod Law, Northumberland, revealed a carved outcrop surface

Figure 5. View of the hillock/mound at Drumirril where the main rock art panels are situated. O'Connor's Trenches 5 and 6 were positioned on the sloping side of the mound directly in the line of sight of this photograph; Trench 6 ran over the visible enclosure bank running around the base of the mound.

buried in part by the hillfort deposits radiocarbon dated to the Iron Age (Smith 1989) evidencing a clear stratigraphic relationship with a carved outcrop cluster. At Torbhlaren 1, a cobbled stone platform set in clay was found extending out from the eastern outcrop edge with a large quantity of natural, fractured and knapped quartz across its surface (Jones *et al.* 2011). A radiocarbon date from a fissure associated with this platform where flint and quartz had been deposited produced a later Neolithic determination of 2920–2860 cal BC (Jones *et al.* 2011: 253). At the southern edge of the platform a stake-built structure of approximately 1.5m diameter was discovered. This had burnt down leaving charred material in the postholes which produced a radiocarbon date of 2580–2340 cal BC (Jones *et al.* 2011: 253) during the Late Neolithic-Beaker transition. These radiocarbon determinations date two phases of activity immediately next to the carved rock panel spanning *c.* 2900–2300 cal BC (Jones *et al.* 2011: 261). After an unknown interval, a low stone revetment wall was constructed over the stake-built structure. At Backstone Beck on Ilkley Moor, six irregular areas of burning were identified together with artefact scatters from two areas around a carved panel. The artefacts included scrapers, flint polished knives and leaf-shaped, oblique, chisel and transverse arrowheads, together with Grooved Ware ceramics and a single sherd from a Beaker, plus a small number of later prehistoric sherds (Edwards and Bradley 1999). Two charred wood samples from beneath an uncarved boulder situated within one of the artefact scatters produced similar radiocarbon dates to those from Torbhlaren with a wide calibrated date range approximating to 3000–2500 cal BC.

Small finds recovered from excavations on and around carved outcrop sites have included mobiliary art, ceramics, hammerstones, pecking/rubbing stones, flints, fractured quartz, charcoal and bone, as well as later material. For example, at Drumirril a hammerstone, flint scraper, Early Neolithic ceramic sherds and a glass bead were recovered from Trench 2, whilst Trench 5 produced a burnt flint, a flint scraper, quartz hammerstone, slag-like material as well as other later period finds in the topsoil, and abundant charcoal in the various structural feature fills. Trench 6 produced burnt bone of pig, sheep/goat and cow and other smaller mammals, further Neolithic ceramic sherds and charred wood (O'Connor 2006). At Hunterheugh Crag, several chipped flints were recovered including a broken probable plano-convex knife, with various coarse stone artefacts including what was interpreted as a pecking and/or rubbing stone, and the butt end of a broken possible sandstone axehead (Waddington *et al.* 2005). At Torbhlaren, 50kg of quartz pebbles, tools and debitage that included scrapers and hammerstones were found on the platform in addition to a small hearth (Jones *et al.* 2011). Small pieces of mobiliary art have also been found, for example at Hunterheugh Crag, as well as during the excavations of several Bronze Age cairns such as those at Weetwood and Fowberry (Beckensall

Figure 6. View of the east side of the Hunterheugh Crag excavation with phasing and stratigraphy evident on the carved rock outcrop following excavation. The earliest, and most eroded, carvings are on the highest panel to the right, whilst secondary carvings, that are much fresher with peck marks visible, are situated on the lower left surface following quarrying which had cut through some of the earlier carvings above and to expose the new lower surface.

1983: 119–123), and more recently at the Beaker period cairn at Low Hauxley (Waddington and Bonsall 2016).

The presence of burning and charred wood means that radiocarbon chronologies can be built for some sites. Whether the material being dated can be related to specific carving events and rock art use remains to be demonstrated but there is no reason why other future excavations could not yet yield radiocarbon dates with direct rock art associations. Although most of the excavation work to date has been small-scale, the validity of excavation has been proven and useful results are emerging. Key questions to consider for the future include the extent of excavations around a rock outcrop or group of carved panels, and whether these should be more extensive to include the immediate hinterland, including any natural topographic approach lines or any potential audience locations. The size and positioning of trenches could be targeted based on the non-invasive prospection data types outlined above. If features are present, then the archaeological horizon and the spaces within and between features could be targeted for geochemical readings to see what variation of chemical signatures are present. This might assist in understanding something about the use of space on and around the rock art panels.

The application of Bayesian modelling to sequences of radiocarbon measurements from stratified layers or features will allow more precise estimations of age. This could potentially inform more detailed phasings for the use and re-use of rock art panels (such as those found at Hunterheugh; Figure 6) and for more precise estimates for *terminus ante quems* and *post quems*. Other forms of scientific dating are continually developing and advances in geological science may yet offer opportunities to test new dating methods on inscribed panels.

Concluding thoughts

If we are to succeed with bringing the study and interpretation of Atlantic rock art into mainstream archaeological syntheses it is essential that campaigns of fieldwork and investigation over and above the recording of decorative panels are undertaken. The excavation work undertaken to date has demonstrated the potential of invasive investigation, and as we learn from each new excavation the opportunities to accumulate significant meaningful data increases.

Notable points this author would consider in advance of an outcrop rock art fieldwork project include:

- The careful selection of site and study area for their potential to have preserved remains, stratigraphy and associations with other features/sites/monuments (e.g., overlying cairns, stone banks, hut circles on carved rock panels, enclosures and natural features and or deliberate quarrying that has removed carvings in prehistory) as well as potential for investigation by fieldwalking or test pit survey.
- The use of high-resolution remote sensing, geophysics and geochemistry in advance of any intrusive works to maximise data on the subtle surface morphology as well as any potential buried remains and use of this data to help define the size and location of excavation trenches.
- A focus on areas where rock art panels from outcrop contexts have been re-used in potentially datable monuments, and where their context of deposition in these new monument forms are known, in order to assist with identifying any pattern of rock art destruction, re-use and deployment through time in a given area.
- The targeting of fieldwork at carved outcrops where there is potential for collecting palaeoenvironmental data in the immediate vicinity which can be used to build an understanding of the potential context of creation, encounter and use of rock art panels and how the landuse in and around them changed over time.
- Taking the opportunity to introduce a new generation of researchers into the investigation of rock art so that they gain skills and experience in what to look for, approaches to field investigation, recording methods and ways of interpreting physical relationships, landscape, data and so forth.

If future fieldwork can achieve even a part of its potential then it will contribute to building on Stan Beckensall's incredible recording legacy that has inspired, informed and stimulated the curiosity of several generations of archaeologists and the public (Figure 7).

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Figure 7. Stan Beckensall teaching university students how to take a photograph of a rock art motif, showing up well after recent rainfall, during the Hunterheugh Crag excavations. The opportunity to pass on skills and experience via programmes of fieldwork investigation are essential to ensure we have the rock art researchers of the future and that we do not lose the incredible store of expertise and knowledge that has been hard won over the last half century. Photo: Aron Mazel.

References

Barnatt, J., B. Bevan and M. Edmonds. 1996. A Prehistoric Landscape at Gardom's Edge, Derbyshire: Excavations 1996. 2nd Interim Report. Unpublished report. Peak District National Park Archaeology Service and Department of Archaeology and Prehistory, University of Sheffield.

Barnett, T. and K.E. Sharpe (eds). 2010. *Carving a Future for British Rock Art: New Directions for Research, Management and Presentation*. Oxford: Oxbow Books.

Bartlett, A. 1988. *Geophysical survey at Coneybury Henge, Amesbury, Wiltshire*. Ancient Monuments Laboratory Report 169/88.

Beckensall, S. 1983. *Northumberland's Prehistoric Rock Carvings*. Rothbury: Pendulum.

Bradley, R. 1997. *Rock Art and the Prehistory of Atlantic Europe. Signing the Land*. London: Routledge.

Bradley, R. and A. Watson. 2012. Excavations at four prehistoric rock carvings on the Ben Lawers Estate, 2007–2010. *Proceedings of the Society of Antiquaries of Scotland* 142: 27–61.

Bradley, R., A. Watson and P. Style. 2019. After the axes? The rock art at Copt Howe, north-west England, and the Neolithic sequence at Great Langdale. *Proceedings of the Prehistoric Society* 85: 177–192.

Bradley, R. and A. Watson. 2019. Found architecture: interpreting a cup-marked outcrop in the southern Highlands of Scotland. *Time & Mind* 12(1): 3–31.

Brown, L.D., R. Stroud, K.E. Sharpe and T. Barnett. 2013. *Stanbury Hill Project: Archaeological Investigation of a Rock Art Site*. Bingley: Bingley and District Local History Society.

Clark, A. 1990. *Seeing Beneath the Soil: Prospecting Methods in Archaeology*. London: Routledge.

Dalan, R. and S. Banerjee. 1998. Solving archaeological problems using techniques of soil magnetism. *Geoarchaeology* 13: 3–36.

Edwards, G. and R. Bradley. 1999. Rock carvings and Neolithic artefacts on Ilkley Moor, West Yorkshire, in R. Cleal and A. MacSween (eds.) *Grooved Ware in Britain and Ireland.* (Neolithic Studies Group Seminar Paper 3): 76–77. Oxford: Oxbow Books.

Frahm, E. and R.C.P. Doonan. 2013. The technological versus methodological revolution of portable XRF

in archaeology. *Journal of Archaeological Science* 40: 1425–1434.

Jones, A., D. Freedman, B. O'Connor and H. Lamdin-Whymark. 2011. *An Animate Landscape: Rock Art and the Prehistory of Kilmartin, Argyll, Scotland*. Oxford: Windgather Press.

Johnston, S.A. 1993. The relationship between prehistoric Irish rock art and passage grave tomb art. *Oxford Journal of Archaeology* 12(3): 257–279.

MacKie, E.W. and A. Davis. 1989. New light on Neolithic rock carving. The petroglyphs at Greenland (Auchentorlie), Dunbartonshire. *Glasgow Archaeological Journal* 15: 125–155.

O'Connor, B. 2003. Recent excavations in a rock art landscape. *Archaeology Ireland* 17(4): 14–16.

O'Connor, B. 2006. Inscribed Landscapes: Contextualising Prehistoric Rock Art in Ireland. Volumes 1 and 2. Unpublished PhD dissertation, University College Dublin.

Oonk, S., C.P. Slomp and D.J. Huisman. 2009. Geochemistry as an aid in archaeological prospection and site interpretation: current issues and research directions. *Archaeological Prospection* 16: 35–51.

Robinson, G. 2016. Archaeological Survey and Excavation Report. Hawkesley Hill, County Durham. Unpublished report prepared for The Architectural and Archaeological Society of Durham and Northumberland. Northern Archaeological Associates Report 16/19.

Sharpe. K.E. 2021. Documenting English rock art: a review of the 'big picture', in G. Hey and P. Frodsham (eds) *New Light on the Neolithic of Northern England*. Oxford: Oxbow Books.

Schneider, A., B. Cancès, C. Breton, M. Ponthieu, X. Morvan, A. Conreux and B. Marin. 2015. Comparison of field portable XRF and aqua regia/ICPAES soil analysis and evaluation of soil moisture influence on FPXRF results. *Journal of Soils and Sediments* 16(2): 438–448.

Smith, C. 1989. Excavations at Dod Law West Hillfort, Northumberland. *Northern Archaeology* 9: 1–55.

Waddington, C. 2007. Cup and rings and passage grave art: insular and imported traditions? In C. Burgess, P. Topping and F. Lynch (eds) *Beyond Stonehenge. Essays in Honour of Colin Burgess*: 11–19. Oxford: Oxbow Books.

Waddington, C. and C. Bonsall. 2016. *Archaeology and Environment on the North Sea Littoral. A Case Study from Low Hauxley*. Bakewell: Archaeological Research Services.

Waddington, C., B. Johnson and A. Mazel. 2005. Excavation of a rock art site at Hunterheugh Crag, Northumberland. *Archaeologia Aeliana* 5th Series 34: 29–54.

13

‘The site chose me’ - carved rocks and so much more

Aron Mazel

Introduction

In 1966, on a ‘day of mist and drizzle’ (Beckensall 1983: 9), Stan Beckensall went for a walk on Old Bewick Hill with his ‘niece and oldest daughter to find the rock that was marked on the Ordnance Survey map and it’s a huge block of stone about the size of a mini car and on the top is completely carved’ (Beckensall in Painter 2019; Figure 1). His finding of ‘Old Bewick 1a’ would substantially change his life. Later, he learnt that ‘by strange coincidence ... [his] ... interest in northern rock carvings began at the very same place’ where Langlands, in the 1820s, had concluded that the carvings were of great antiquity (Beckensall in Painter 2019). Years later, Beckensall (in Painter 2019) reflected on the carvers:

> They’ve taken the natural indentations and they’ve added to them and brought a whole series of concentric circles right down the rock ... You stand there, and you think why. Now that question is what really interested me in rock art ... you realise that you’re dealing with religious symbolism but it’s not simply that because religion wasn’t something separate from ordinary life ... but ... it was terribly important to them and I realised this just by looking at this big block of stone ... so I thought this is what I’m going to find out.

Inspired, Beckensall (2007: 223) notes ‘The site chose me’, asking ‘What are these markings? Who put them there? Why? When?’.

Although this was Beckensall’s first encounter with British rock art, his connection to archaeology ‘began quite fortuitously’ in Sussex years earlier, when he was Head of English at Ifield Grammar School, and where, ‘with the confidence of youth’, he covered for a lecturer who was unable to give a presentation about ‘Prehistoric Sussex’ (Beckensall 2007: 222, 223). Although he taught English, history was very much in his blood having obtained a BA (Hons) in History and English at Keele University, where he is believed to have been its first male graduate (Keele University 2019). At Ifield, Beckensall studied local history and gave presentations about it. Giving the archaeology presentation he was ‘fascinated by what [he] had missed, and was faced with local people who had great collections of flint implements ... These amazed me, [I] was hooked’ (Beckensall 2007: 223); thus his long-term association with archaeology was initiated. Thereafter, he attended a short course for teachers about Roman archaeology and his ‘appetite grew’. After joining the Sussex Archaeological Society Research Committee, he excavated Money Mound, producing the first of his many archaeological publications (Beckensall 1967). With these experiences, Beckensall (cited in Cochrane 2004: 19), ‘found what was to become a lifelong passion, largely self-taught and learned in the field.’

Figure 1. Old Bewick 1a. Photo: Aron Mazel.

While teaching English in Malta, from 1964 to 1966, Beckensall was introduced to megalithic temples and rock art, which fascinated him. Afterwards, he returned to England to train teachers at Alnwick College of Education, until it closed in 1977 (Ratcliffe 2019). Back in the UK, Beckensall had a quandary, ‘there was an inevitability that I should be interested in archaeology as well as

poetry, drama and how children learn. But what should I pursue?' (Beckensall 2007: 223). Well, he pursued all of them, although it would be fair to comment that until a decade ago, when he published his most recent book solely dedicated to the subject (Beckensall 2009), he focused primarily on rock art.

This paper will consider Beckensall's engagement with rock art, especially in Northumberland, including his desire to make them better known. His collegiality and some of his other pursuits will also be highlighted.

Northumberland rock art: building a world-class archive

After encountering Old Bewick, Beckensall began exploring 'all that was to learn about rock art in Northumberland' (in Painter 2019). As his investigations expanded, he 'soon' learnt 'that we didn't know much about rock art, and I set out like ... early antiquarians to find out, not as my main occupation, but as a hobby, as a small part of my life. In retirement I ... had more leisure to pursue this hobby more thoroughly' (2007: 220). He acknowledges (2007: 220) that he 'owes much to the early scholars', and particularly to George Tate 'whose survey covered 53 sculptured stones in Northumberland with 350 figures' (Beckensall 2007: 207), a number that Beckensall surpassed in his first publication on rock art (1974).

Being an educator benefitted his early engagement with rock art, 'Because I was training teachers and went around the county a lot I was able to know where these places were and the position of rock art itself and it became a kind of obsession for me and it was lovely' (in Painter 2019). He was supported in his endeavours by 'enthusiastic field workers, farmers and shepherds who ... helped' (Beckensall 1983: 6). Among these were Iain and Irene Hewitt (pers. comm. 2022), who, in 1982, attended 'his course on the history and landscape of Northumberland' at a teachers' residential programme at Ford Castle. Beckensall introduced them to rock art during an excursion to Blawearie, on Old Bewick Hill (see Hewitt and Hewitt, this volume). They took an interest in the topic and returned to Northumberland in the following years to pursue it further, thereby initiating a fruitful decade-long rock art collaboration with Beckensall. Not only did they record known rock art but made new discoveries (e.g., Beckensall *et al.* 1991), leading to Iain using Northumberland rock art in his thesis (Hewitt 1991). Significantly, they assisted Beckensall 'to streamline his recording system' (Mazel 2006: 8; see also Beckensall *et al.* 1991; Hewitt 1991). Dedicating his publication *Circles in Stone* to them, Beckensall (2006: n.p.) acknowledged their contribution as his 'co-Directors in the excavation of the Blawearie Cairns (1984–88), who have for years been my close friends, helped me in my research, and have done their best to improve my [rock art] recording system.' While Beckensall received support from various quarters, it requires emphasising that his recording success was largely built on his drive and tenaciousness in pursuing carved rocks, which included searching new areas, and having an 'uncanny knack of being able to go directly to the rock' (Bradley pers. comm. 2022).

Early on, Beckensall (1983: 9) recognised that recording,

> must be conducted in a scientific, exact, way. Information must be carefully collected, not only from the visible evidence in the field, but through records of past and present historians. This is a formidable task if one is to do it properly, for a casual visit to a site is not enough: is it surprising what one can miss.

Furthermore, he 'recorded ... meticulously by making a rubbing ... on paper ... with black wax, brought it home, did the drawing, checked it with photographs that I'd taken' (in Painter 2019, and see Figure 2). Bradley (1992: 2) commented that Beckensall 'has been one of the most patient and thorough of all recorders ... and his eye for the details of individual carvings is as keen as his grasp of the countryside as a whole.' After 1992, Beckensall proudly used a Nikon SLR camera bequeathed to him by Ronald Morris (Mazel 2006). Beckensall's drawings and photographs were enhanced by detailed commentary about the carvings, including highlighting their landscape positions and nearby archaeological entities.

Responding to criticisms of his rubbing technique, which involved contact with the carvings, Beckensall (2004: 2) explained that his:

> drawings are based on rubbings and on low-light photography. Before we become too indignant about the practice of making rubbings I must point out that there is a considerable difference between the making of a few rubbings for the specific purpose of accurate recording and mass-rubbings for wall decorations. I ... firmly maintain that without my evolving wax rubbing technique I would not have been able to achieve such accuracy ... Some panels recorded in this way have now disappeared from the field, so I am glad that we have them recorded in this way.

Through time, Beckensall's 'field recordings and publications started to be used by an increasing number of university and institutionally-based rock art researchers that began to engage with British rock art' (Mazel 2006: 8). Chris Chippindale (2002: 270), for example, commented that Beckensall's *Prehistoric Rock Art in Northumberland* is a 'first-rate book [that] gives a

Figure 2. Stan Beckensall and Miriam Ross (MLitt student, Newcastle University) rubbing Hunterheugh carvings (2004). Photo: Aron Mazel.

comprehensive descriptive account of the rock art of Northumberland ... It is written from ... great knowledge with an inviting charm, splendidly illustrated with his photographs and drawings, well produced in a manageable size, and not expensive for what it offers.' Similarly, Paul Frodsham (2004: 22) remarked, 'thanks largely to the efforts of Stan Beckensall, who has meticulously catalogued and recorded hundreds of such sites throughout northern England ... this rock art is increasingly recognised as an integral part of the prehistoric landscape which has the potential to tell us much about the ways in which Neolithic people used and understood their world.'

By 2000, Beckensall had recorded hundreds of panels across Northumberland. Appreciating the significance of his archive, combined with exciting new possibilities offered by the internet for sharing information, Geoff Bailey, Clive Waddington and Glyn Goodrick received an Arts and Humanities Research Board Resource Enhancement Grant to place it on the internet. The resulting 'Web Access to Rock Art: the Beckensall Archive of Northumberland Rock Art' project (hereafter, BAP; Figure 3), which I managed, ran between July 2002 and December 2004; the website was launched on 14 January 2005. (Newcastle University took the website down in 2015 due to security concerns as it had not been updated since 2005.) Careful dissection of Beckensall's archive revealed 790 panels, a total which was increased to 1060 during BAP through further scrutiny of Beckensall's records and, reflecting his previous experiences, 'field discoveries, and information supplied by colleagues, farmers and landowners, and members of the public' (Mazel 2007: 239). About 90% of the 810 known panels in countryside at the time, were re-recorded largely due to Beckensall's active involvement in fieldwork.

Beckensall's rock art investigations initially focused on Northumberland while retaining his day job as Head Teacher of Corbridge and Rothbury Middle Schools respectively. With early retirement, Beckensall expanded his reach geographically. More recording and publications ensued, not only on Northumberland, but also on County Durham, Swaledale and Wensleydale (Beckensall and Laurie 1998), Cumbria (Beckensall 2002) and Kilmartin (Beckensall 2005). Furthermore, Beckensall's enhanced appreciation of rock art nationally led to publications about British rock art (Beckensall 1999, 2006, 2009).

Beckensall's concern for safeguarding the carvings ran alongside his recording and publishing efforts. According to Iain and Irene Hewitt (pers. comm. 2022), in the early 1980s Beckensall emphasised to Ford Castle students the need to treat them respectfully. Beckensall also showed his concern for more than the carvings

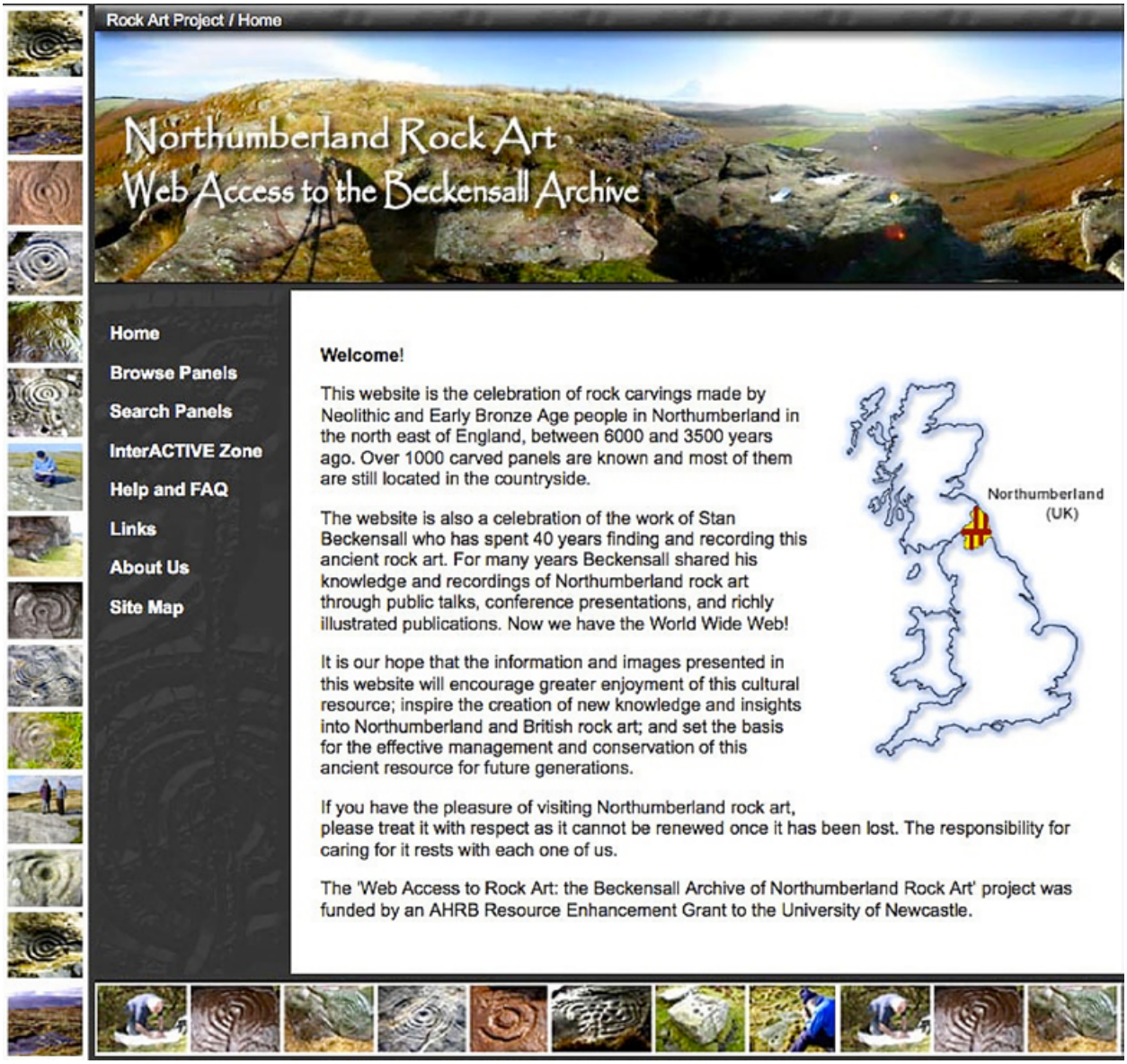


Figure 3. Screenshot of the BAP website (2005).

when, in 1982, he successfully requested a farmer to stop dismantling Weetwood Mound so that he could do a rescue excavation of the remaining intact part of mound, yielding 21 *in situ* portable carved stones (Carlton, this volume) and a decorated kerbstone (Figure 4) (Beckensall 2001: 126-129). Another example of Beckensall's concerns for the carvings derives from 2002, as Duncan Ord commented, 'Our cows were traditionally wintered on ... [Chatton Park Hill] ... where the rock art is ... But when Stan Beckensall told me how important these markings on the rocks were, I was happy to change our husbandry practices' (BBC 2002) as part of a Countryside Stewardship Scheme. In 2004, Beckensall conveyed his concerns to English Heritage (EH):

> All those who work in the field must keep reporting any problems that they encounter: destructive animal presence, trees or shrubs encroachment and other threats and lack of protection ... Unfortunately, this is an uphill battle given what appears to be a lack of concern among the heritage authorities for the long-term safeguarding of the priceless heritage resources. It will be for the younger generation ... to take up the fight.

The 'uphill battle' continues (Mazel and Giesen 2019)!

Concluding this section, I would like to emphasise that Beckensall's rock art work has been unfunded:

> Today people are not prepared to embark on projects at their own expense, and expect grants, but I have never been in that position. It would have been good, but even with some publications I have had to pay for them myself many times and

Figure 4. Stan Beckensall pictured in the early 1980s with his rubbing of the Weetwood Mound kerbstone (the decorated face of which originally faced into the mound, but was replaced facing outwards, so that it can be seen, following the excavation). Photo from the Beckensall Archive.

> try to find outlets. It's different now, thanks to the new interest. Luckily, I have had a salary all my life. (Beckensall 2007: 225)

Spreading the word

Beckensall's 'infectious enthusiasm' for rock art (Bradley pers. comm. 2022) has led him to discuss and publicise his findings widely (Figure 5), including privately publishing books (e.g., Beckensall 1991, 1992). As previously noted, his:

> desire to share his findings with as large an audience as possible has seen him ... do an enormous amount to make this subject matter accessible to the public and to actively encourage its enjoyment and further study. I doubt whether there are many people who have given as many slideshows in rural parish halls as Stan and, in doing so, have inspired young and old about ancient Britain! (Mazel 2006: 9)

Moreover, it is not uncommon to encounter people in Northumberland using his publications to help them find and decipher panels with his illustrations and eloquent commentary. Additionally, Beckensall 'has contributed to several radio and TV programmes on the subject' (Cochrane 2004: 20; Figures 6 and 7). From early on, Beckensall embraced publicity, which underpins his healthy relationship with the press. As veteran Newcastle journalist Tony Henderson, who first met Beckensall in the early 1980s, reflected, (pers. comm. 2022), 'he was always very helpful and keen' when requested to comment 'not only on rock art but about Northumberland and its history.' This resonates with Iain and Irene Hewitt's observation (pers. comm. 2022) that Beckensall was 'a great publicist' who valued 'spreading the word', recalling that hardly a day went by at the Blawearie excavations, particularly between 1986 and 1988, without them being visited by members of the press or county officials (Figure 8).

Beckensall's desire for people to maximise their experience of *Prehistoric Rock Art in Northumberland* (2001) led to the most extensive use of his archive and introduced it to a global audience. As the publishers were unable to produce large versions of his drawings, he requested the Museum of Antiquities (Newcastle University) to put his drawings on CDs for him to distribute. The ensuing discussions led to BAP, making his archive available via the internet (Mazel and Ayestaran 2010). While BAP has been written about previously (Bailey *et al.* 2005; Mazel 2005a, 2005b, 2007, 2017; Mazel and Ayestaran 2010), some outcomes deserve emphasising. Details of visitor usage are available for the first three and a half years, including: (i) 17 million successful hits; (ii) an average of 13 500 successful daily requests; (iii) over 500 000 successful page requests; and (iv) 115 000 distinct website visitors, suggesting that, on average, more than 3000 people virtually visited Northumberland rock art monthly, which most likely exceeds the number of physical visits (Mazel and Ayestaran 2010). Significantly, these visitors derived from over 100 countries.

BAP's success led to a British Archaeological Award (Channel 4 Television Award: ICT Category) in 2006 (Figure 9):

> This site provides access to Stan Beckensall's remarkable archive of images dedicated to this equally remarkable collection of prehistoric sites – the Neolithic and Bronze Age rock carvings of Northumberland. There are over 6000 images of rock art panels, which can be searched in a number of ways, including important information on the accessibility of these sites to those of restricted mobility. There are also interactive components, including over 40 Panoramic Virtual Reality views of sites. This award is also a celebration of the work of Stan Beckensall, who spent 40 years recording prehistoric rock art. Throughout that time he shared his knowledge through talks and his richly illustrated publications – now we can appreciate him through the world wide web. (BAA 2006)

Figure 5. Stan Beckensall giving an impromptu talk at the launch of the Rock Art Mobile Project (2011). Photo: Aron Mazel.

Figure 6. Stan Beckensall filming at Dod Law Main Rock A. Photo: Iain and Irene Hewitt.

Figure 7. Stan Beckensall giving a BBC radio interview to Vanessa Collingridge and Nick Patrick at Weetwood Moor 3a (2007). Photo: Aron Mazel.

Figure 8. Stan Beckensall excavating Blawearie with George Anderson, Deputy Head Community – Seahouses (1986). Photo: Iain and Irene Hewitt.

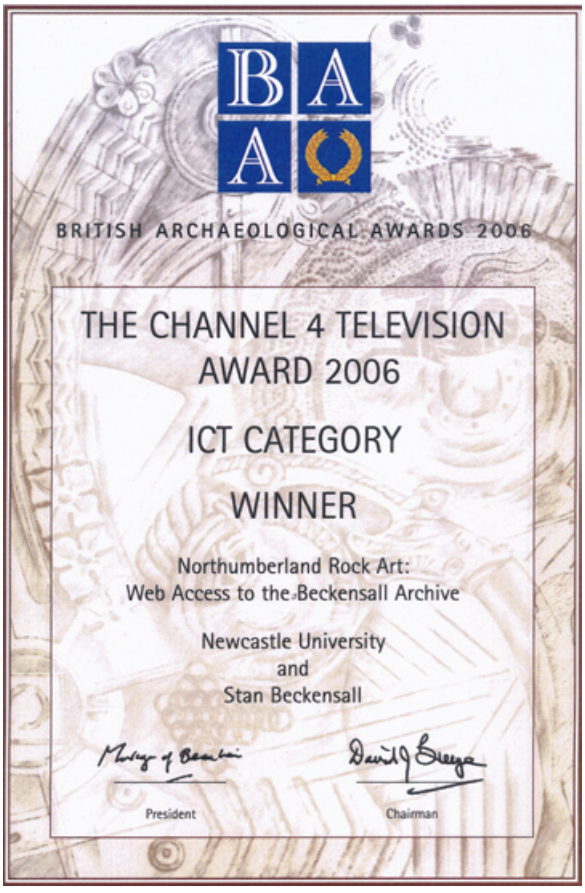


Figure 9. British Archaeological Award certificate (2006).

Another positive outcome of Beckensall's collaboration with Newcastle University was him being awarded an Honorary PhD in 2004 (Figure 10). Bailey and Mazel's (2003) nomination stated that it was 'in recognition of his outstanding contribution to the development of rock art recording and research in Britain and his tireless efforts in making this significant archaeological resource accessible to academics and the broader public'. In 2017, Beckensall received another well-deserved accolade: an MBE for a 'Lifetime of voluntary work of recording, safeguarding and sharing information on pre-historic rock-art and local history in Britain.'

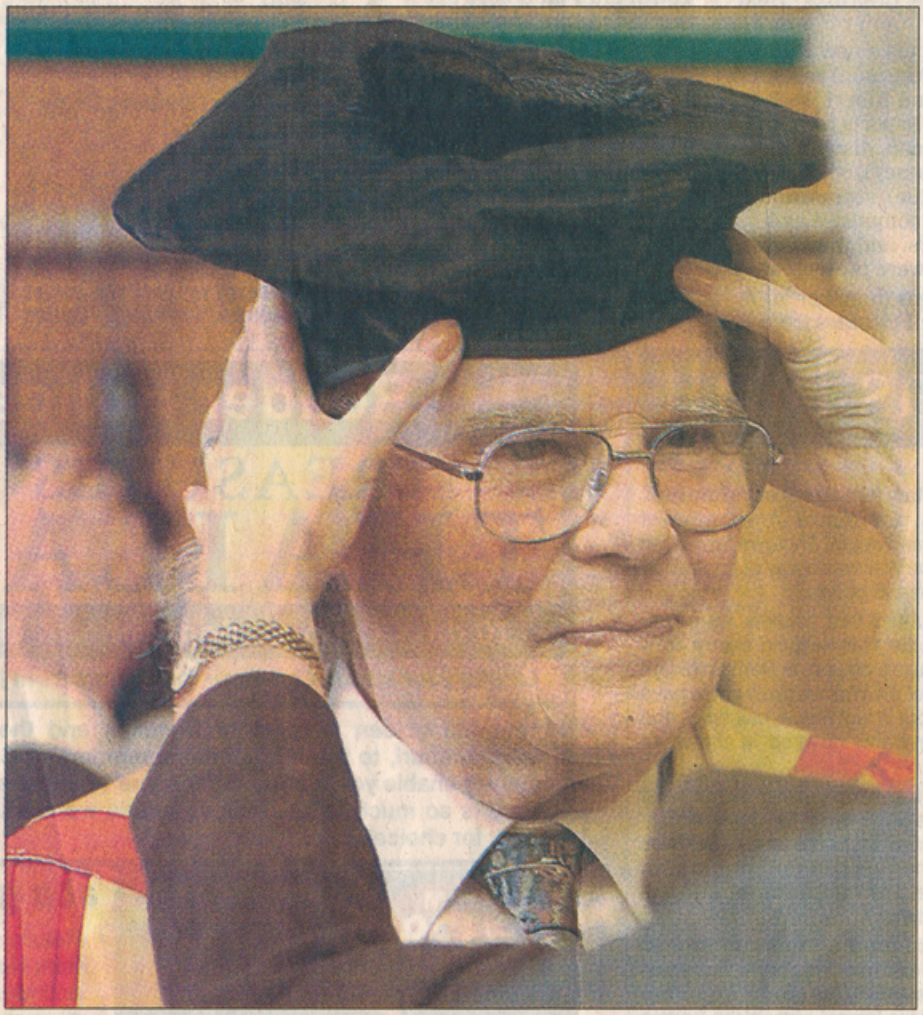
Following BAP, EH funded the Northumberland and Durham Rock Art Project (2004–2008). Acknowledging Beckensall's contribution, it was noted that the project 'built on and incorporated the work of the Newcastle University Beckensall Archive' (Sharpe *et al.* 2008: n.p.).

Collegiality

From the outset, Beckensall has been willing to help people. Iain and Irene Hewitt (pers. comm. 2022), who collaborated with Beckensall on rock art and the Blawearie excavation (Hewitt and Beckensall 1996; Hewitt and Hewitt, this volume) described his engagement with them as enthusiastic and 'very collegial'. Another colleague Beckensall supported was Richard Bradley (pers. comm. 2022). After corresponding, they met in Wooler, in 1982,

Hexham Courant 14/5/2004 Page 20.

Rock art expert receives honorary university degree



■ **Cap honour:** Stan Beckensall receives his honorary degree at Newcastle University.

HEXHAM'S Stan Beckensall was presented with an honorary degree from Newcastle University during a ceremony last Friday.

Mr Beckensall, of Leazes Crescent, was given the honour after devoting nearly 40 years to recording the prehistoric rock art of Britain.

In that time, he has done more to raise the international profile of British rock art, especially the rock art of Northumberland, than any other archaeologist.

In 2003, Mr Beckensall donated his extensive Northumberland rock art archive to the university, where a website to make this resource available worldwide to specialists and enthusiasts alike is being developed.

He was presented with his degree by the Chancellor of Newcastle University, Christopher Patten.

Other recipients of honorary degrees included sculptor and creator of the Angel of the North Antony Gormley, writer and broadcaster Miriam Stoppard, and the founder and former managing director of Sage, Graham Wylie.

Figure 10. Hexham Courant article about Beckensall's Honorary PhD (2004).

and Beckensall took him to Chatton Park Hill where they spent 'ages' viewing rock art. Bradley was impressed by his 'enthusiasm' for the carvings, remembering that he 'was wonderful at showing' them. A long-lasting friendship developed. Thereafter, Beckensall introduced Bradley and his students to more carvings, as Bradley *et al.* (1993: 142) acknowledged, 'We are most grateful ... for his interest, help and enthusiasm. He discovered many of the rock carvings in the first place and has contributed enormously to the work of the project.' Furthermore, Bradley dedicated *Rock Art and the Prehistory of Atlantic Europe* to Beckensall:

> Rock Art is one of those fields in which amateurs and professionals have been able to work together successfully. It is only right that I dedicate this book to the two people who have done most to encourage and support me in this work: Stan Beckensall, the most devoted of amateur archaeologists ... introduced me to the pleasures of studying rock art. (Bradley 1997: xiv)

This was, however, a mutually beneficial relationship, as Beckensall (2007: 225) noted, 'The main changes have resulted from my contact with people like Richard Bradley. I was still deeply involved in my various lives as father, headteacher, drama producer and other things when he made me re-think rock-art.'

In the 1990s, Beckensall's collegiality extended to the EH funded Rock Art Pilot Project whose remit was to 'investigate the current state of research, conservation,

management and presentation of prehistoric rock art in England.' The project 'relied upon receiving information, advice, and support from ... those with local knowledge of rock art in specific regions, with Beckensall's archive' being one of the 'key sources consulted' (RAPP 2000: 19–20).

More than cups-and-rings

Interviewed by Rachel Cochrane (2004: 20), Beckensall indicated that he didn't 'want to be known for just rock art: I have also spent a lifetime teaching, writing and producing plays...'. And, so it should be, as his impressively varied and rich life journey has encompassed far more than 'just rock art'. It will be impossible to do justice to it all here, but herewith a flavour.

Beckensall's first rock art book (1974) was followed shortly afterwards by his 1975 book about place-names, a topic which has fascinated him since the early 1970s. At the launch of his updated place-names book (Beckensall 2016), he explained that when it was announced the Alnwick College of Education was going to be closed, 'it was getting depressing because students were going out, but none were coming in'; however, this meant that he had free time (cited in Tulip 2021). Obtaining access to the Duke of Northumberland's ancient land surveys and maps enabled him to investigate field-names (Tulip 2021). As with his carvings research, farmers helped him retrieve names 'once lost in the mists of time' (cited in Tulip 2021) shedding light on people who settled in Northumberland during the Anglo-Saxon period. Beckensall's ongoing commitment to Northumberland combined with his insatiable thirst for knowledge has led to a plethora of books on many topics, such as Hadrian's Wall (2010a), coastal castles of Northumberland (2010b), Hexham (2012), and Northumberland's churches (2013).

Another great love of Beckensall's is poetry, resulting in an impressive published output, such as his latest collection *Greenman and Other Poems* (2019). Explaining his approach, Beckensall (2007: 227) commented, 'What I am pleased about in my work is my poetry, for there comes a point where no amount of logic can account for everything we see in the field. I then let my sub-conscious take over. At least it is an honest approach and an acknowledgement that mystery remains.' As a poet, Beckensall has tackled a variety of topics, as noted by Kim Cowie in her Foreword to *Greenman* (2019: 3), he:

> celebrates the richness and mystery of life, while understanding the sadness, loss and loneliness of many. He recognises the cruelty of some yet the boundless compassion of others. His message is simple yet profound: act with compassion, share, love, celebrate the infinite wonders of the universe, find joy and always embrace the opportunity for laughter.

Beckensall has 'always [been] involved in the church', including being Treasurer at St Michael & All Angels Church in Felton for 11 years prior to relocating to Hexham in 1977 (Beckensall in Painter 2019). In Hexham, his long association with the Abbey, has involved being a member of the Conservation Advisory Group and 'a regular member of the congregation, an advocate for the church's historic significance, and a staunch defender of its fabric and collection' (Hugh Dixon pers. comm. 2022). Additionally, Beckensall has contributed greatly to civic life in Hexham, where he is an Honorary Steward and Bailiff (Clark 2017: 3).

Conclusion

I complete this short biographical sketch by highlighting facets of Beckensall that might not be widely known. According to his daughter, Sonia Clark (2017: 3) he is, 'a very well-known character and popular man around his hometown ... who has been happy to share his lifetime of work and give freely of his time to help others participate [in] what he is passionate about.' Additionally, Hugh Dixon observed that Beckensall 'is rarely without an encouraging bee in his bonnet' (pers. comm. 2022).

As already mentioned, Beckensall is a consummate public educator who has given many public talks. What is less known, however, is that he 'donates all the proceed to charities such as Hexham Food Bank, Save the Children (Syria) and Tynedale Hospice' (Clark 2017). A letter from Alison Hands (CEO, Tynedale Hospice at Home) to Beckensall, on 31 January 2017, exemplifies this: 'I am writing to say a big thank you for your generous donations totalling £250.00 [to Tynedale Hospice at Home], which has been raised as a result of talks you gave at Hexham Abbey' (letter included in Clark 2017).

I leave the last word to Clark (2017: 3):

> I am constantly struck by how so many people seem to know him and hold him in such high esteem. For example, I was browsing in a craft market ... and came across a wood carving stall. I remarked how one of the carvings looked like a Cup and Ring Mark and the stall holder said to me 'Oh do you know Stan Beckensall's books then'? When I told him I was his daughter he began enthusing about how much Stan's books had influenced his life, his art and his wood carvings.

What greater accolade can there be!

Acknowledgements

In 2002, I arrived in the UK after four challenging years as the director of a national museum in South Africa. I needed to recharge my batteries and re-establish my equilibrium. My work with Stan on Northumberland rock art achieved that. We got on well from the outset and had many productive and fun hours together in the field. Thank you, Stan! I hope I have done justice to your extraordinary life in this short piece! Thanks to Richard Bradley, Sonia Clark, Hugh Dixon, Iain and Irene Hewitt, and Tony Henderson who spoke to me.

References

BAA, 2006, British Archaeological Awards, viewed 6 February 2022, <http://archaeologicalawards.com/2006-winners>.

Bailey, G. and A. Mazel. 2003. Memo to Dr J. V. Hogan (Registrar, Newcastle University).

Bailey, G., S. Beckensall, C. Burgess, G. Goodrick, A. Mazel, S. Rushton and C. Waddington. 2005. British Rock Art databases roll onto the Internet. *The Archaeologist* 58: 16.

BBC, 2002, Future assured for ancient rock art, viewed 4 February 2006, <http://news.bbc.co.uk/1/hi/england/2564681.stm>.

Beckensall, S. 1967. The Excavation of Money Mound. *Sussex Archaeological Society Collections* 105: 13–31.

Beckensall, S. 1974. *The Prehistoric Carved Rocks of Northumberland*. Newcastle: Frank Graham.

Beckensall, S. 1975. *Northumberland Place-names*. Newcastle: Frank Graham.

Beckensall, S. 1983. *Northumberland's Prehistoric Carvings. A Mystery Explained*. Rothbury: Pendulum Press.

Beckensall, S. 1991. *Prehistoric Rock Motifs of Northumberland, 1*. Hexham: Privately Published.

Beckensall, S. 1992. *Prehistoric Rock Motifs of Northumberland, 2*. Hexham: Privately Published.

Beckensall, S. 1999. *British Prehistoric Rock Art*. Stroud: Tempus.

Beckensall, S. 2001. *Prehistoric Rock Art in Northumberland*. Stroud: Tempus.

Beckensall, S. 2002. *Prehistoric Rock Art in Cumbria*. Stroud: Tempus.

Beckensall, S. 2004. EH Steering Committee on Rock Art Management. Unpublished document. Four pages.

Beckensall, S. 2005. *The Prehistoric Rock Art of Kilmartin*. Kilmartin Trust.

Beckensall, S. 2006. *Circles in Stone. A British Prehistoric Mystery*. Stroud: Tempus.

Beckensall, S. 2007. How the study of rock-art began and developed, in A. Mazel, G. Nash and C. Waddington (eds) *Art as Metaphor: The Prehistoric Rock-Art of Britain*: 205–229. Oxford: Archaeopress.

Beckensall, S. 2009. *Prehistoric Rock Art in Britain: Sermons in Stone*. Stroud: Amberley Publishing.

Beckensall, S. 2010. *Empire Halts Here: Viewing the Heart of Hadrian's Wall*. Stroud: Amberley Publishing.

Beckensall, S. 2010. *Coastal Castles of Northumberland. Stroud*: Amberley Publishing.

Beckensall, S. 2012. *Hexham Through Time*. Stroud: Amberley Publishing.

Beckensall, S. 2013. *Northumberland Churches: From the Anglo-Saxons to the Reformation*. Stroud: Amberley Publishing.

Beckensall, S. 2016. *Place Names and Field Names of Northumberland*. Stroud: Fonthill Media.

Beckensall, S. 2019. *Greenman and Other Poems*. Hexham: Robson Print.

Beckensall, S., I. Hewitt and I. Hewitt. 1991. Prehistoric rock motifs recently recorded in Northumberland. *Archaeologia Aeliana. 5th Series* 19: 1–5.

Beckensall, S. and T. Laurie. 1998. *Prehistoric Rock Art of County Durham, Swaledale and Wensleydale*. Durham: County Durham Books.

Bradley, R. 1992. Foreword, in S. Beckensall *Prehistoric Rock Motifs of Northumberland, 2*: 2. Hexham: Privately Published.

Bradley, R. 1997. *Rock Art and the Prehistory of Atlantic Europe*. London: Routledge.

Bradley, R., J. Harding, S. Rippon and M. Mathews. 1993. A field method for investigating the distribution of rock art. *Oxford Journal of Archaeology* 12 (2): 129–143.

Chippindale, C. 2002. Review: Stan Beckensall, Prehistoric Rock Art in Northumberland. Stroud: Tempus. *Antiquity* 76 (291): 270–271.

Clark, S. 2017. Nomination for a UK Honour. Unpublished document. 40 pages.

Cochrane, R. 2004. A past master in his element. *The Northumbrian*: 19–21.

Cowie, K. 2019. Foreword, in S. Beckensall *Greenman and Other Poems*: 3. Hexham: Robson Print Limited.

Frodsham, P. 2004. 'Long ago, in the land of the far horizons...'. An introduction to the archaeology of Northumberland National Park', in P. Frodsham (ed.) *Archaeology in Northumberland National Park*. York: Council for British Archaeology: 2–152.

Hewitt, I. 1991. Prehistoric rock motifs in Great Britain: an appraisal of their place in the archaeological record with specific reference to Northumberland. Unpublished dissertation, Bournemouth University.

Hewitt, I. and S. Beckensall. 1996. The excavation of cairns at Blawearie, Old Bewick, Northumberland. *Proceedings of the Prehistoric Society* 62: 255–274.

Keele University, 2019, Keele Alumnus celebrated in New Year Honours, viewed 6 February 2022, <https://www.keele.ac.uk/about/news/2019/january/keele-alumnus/mbe.php>.

Mazel, A.D. 2005a. Virtual access to the Beckensall Northumberland rock art archive. *International Newsletter on Rock Art* 42: 24–27.

Mazel, A.D. 2005b. *Northumberland rock art*. British Archaeology 82: 21.

Mazel, A.D. 2006. Foreword, in S. Beckensall *Circles in Stone: A British Prehistoric Mystery*: 7–9. Stroud: Tempus.

Mazel, A.D. 2007. On the fells and beyond: exploring aspects of Northumberland rock-art, in A. Mazel, G. Nash and C. Waddington (eds) *Art as Metaphor: The Prehistoric Rock-Art of Britain*: 231–256. Oxford: Archaeopress.

Mazel, A.D. 2017. Valuing rock art: a view from Northumberland in North East England. *International Journal of Heritage Studies*. 23 (5): 421–433.

Mazel, A.D. and H. Ayestaran. 2010. Visiting Northumberland rock art virtually: the Beckensall archive analysed, in T.F. Barnett and K.E. Sharpe (eds) *Carving a Future for British Rock Art: New Approaches to Research, Management and Presentation*: 140–150. Oxford: Oxbow Books.

Mazel, A. and M. Giesen. 2019. Engagement and management: developing a monitoring system for open-air rock art in the UK and Ireland. *Conservation and Management of Archaeological Sites* 21 (3): 160–183.

Painter, A, 2019, Unsung North East Hero: Stan Beckensall, viewed 8 January 2022, <http://www.rachelcochrane.com>.

RAPP 2000. Rock Art Pilot Project, Main Report. Bournemouth University, Institute of Archaeology, and English Heritage.

Ratcliffe, R, 2019, A gazetteer of closed higher education institutions, viewed 13 February 2022, <https://moremeansbetter.wordpress.com>.

Sharpe, K., T. Barnett, and S. Rushton. 2008. *The Prehistoric Rock Art of England: Recording, Managing and Enjoying our Carved Heritage*. English Heritage, Northumberland County Council and Durham County Council.

Tulip, J, 2021, Dr Stan Beckensall and place meanings in Northumberland, Hexham Courant, viewed 17 February 2022, <https://www.hexham-courant.co.uk/news/19192931.dr-stan-beckensall-place-meanings-northumberland/>.

14

The Lord of the Rings

Paul G. Bahn

It is a great pleasure and a privilege to contribute to this volume in tribute to Stan Beckensall for his 90th birthday. I was very pleased with myself for coming up with such a witty title, until I learned that Paul Frodsham had already called him 'Lord of the Cups and Rings' in a review (Frodsham 2002)! So, I concede priority to Paul, but confess that I prefer my version!

I first met Stan (Figure 1) when he did me the honour of attending my Rhind lectures, *Art on the Rocks* in Edinburgh in 2006 (Bahn 2010). Obviously, I was already well-aware of his enormous contributions to the study of British rock art, but our paths had never crossed. Henceforth, we became the firmest of friends, and I was subsequently delighted to travel with him and be shown the rock art sites not only of Northumberland (Figure 2) but also of Kilmartin. In 2009, we joined forces to host Loit Joekalda, the foremost authority on Estonia's rock art, and show him both Creswell Crags and many of the Northumberland sites (Figure 3).

I was particularly pleased that Stan attended my Rhind lectures because, to me, he epitomises one of my major themes – i.e., the huge debt that rock art research owes to 'amateurs' like him. Nobody has a monopoly on knowledge about rock art, or on appreciation of rock art, or dedication to rock art. And yet the field is filled with elitism and snobbery and closed shops and exclusivity. Yet, the distinction between the archaeologist and the non-archaeologist in rock art studies is surely irrelevant. An archaeological degree is largely irrelevant in rock art studies. What exactly is an archaeological degree? Well, it means you've been to a few lectures, maybe, and taken a few notes, and you

Figure 1. Stan Beckensall with the author, Edinburgh 2006.

Figure 2. Stan Beckensall at Dod Law in 2014.

Figure 3. Stan Beckensall with Loit Joekalda at Ketley Crag in 2009.

may have read a few articles and books; you may even have thought about them now and again, and you've regurgitated some things in an exam. But it doesn't give the slightest indication of your intelligence, your creativity, imagination, dedication or originality – as we can see in countless examples all around us. Yet many 'professionals' believe a university degree bestows some divine right to consider themselves far above the hoi polloi.

How many archaeology courses even mention rock art? There are usually some token lectures on cave art; but it is rarely mentioned in lectures that there is rock art in other parts of the world. To quote Clement Meighan (1982: 225), 'Of course, one does not have to be an archaeologist to conduct significant rock art studies, and indeed the specialists in rock art are far more knowledgeable and efficient at recording and analysing rock art than the average archaeologist, since most institutions training archaeologists provide no training whatever in the specialised part of archaeology that is rock art.'

Some of the academics seem to think they are infallible, and they gather together a bunch of disciples or followers around them, known as 'mafias', who often serve to block access to decorated caves, or to impede the advancement of scholars with different opinions. I have met 'amateurs' who have forgotten more about rock art than I will ever know, and I've also met 'professionals' who knew next to nothing about it! 'Amateurs' have always been the backbone and the strength of archaeology, and of rock art, from the start – they were clerics, medics, lawyers... and, of course, schoolteachers.

Almost all of the major rock art associations around the world were founded by 'amateurs' (although the tide has begun to turn). They have made a tremendous and invaluable contribution, not just to the discovery and documentation of rock art, but especially and most importantly to conservation and education. These are actually the hallmarks of these organisations, and they are not aspects that are normally associated with 'professionals'.

Whether a person is a 'professional' or an 'amateur' is meaningless in rock art studies. What matters is their knowledge, their interest, their dedication, their enthusiasm, the time and energy they put into what they do. What does this person know or care about rock art? That is the bottom line, and we should revere the

people who care, and who do things, and who know things, and who record them, and preserve them, and who discover, analyse and publish things: there is certainly no reason to dismiss them or sneer at them from ivory towers. Personally, I would urge that we drop the terms 'professional' and 'amateur' completely in rock art, and replace them with the less divisive 'rock art specialist' (Bahn 2010: 10–15).

Stan stands head and shoulders above most specialists for the abundance and quality of his rock art work. As I wrote elsewhere (Bahn 2009), he 'worked for decades, in his own time and at his own expense, to compile an unrivalled database which will be of incalculable importance to future generations of researchers.' I am delighted that in May 2004 he was rewarded with an honorary doctorate from Newcastle University, since most 'amateurs' or 'independent researchers' in his position never receive any kind of award, and are often actively denigrated, belittled or ignored by the so-called 'professionals', many of whom cannot hold a candle to them in terms of knowledge, experience and dedication. But Stan's many contributions are not limited simply to the recording of rock art sites. His numerous fine publications have brought them to the attention of a wide public, while his skills in teaching have ignited an interest in rock markings in the younger generation. Indeed his 'services to prehistoric rock art and history in Britain' brought him a richly deserved MBE in the 2019 New Year Honours.

I profoundly admire Stan's writing skills, whether in non-fiction, fiction (e.g., Beckensall 2008) or poetry; but what I admire even more is his no-nonsense approach to his subject. He has been a beacon of sanity and a breath of fresh air in his insistence on clarity of language and of thought processes, his determination to shun trendy interpretations for which there is no supporting evidence, and for his humility and modesty in being able to accept that there are many things we shall never know or understand in prehistoric rock art. These are all hallmarks of a truly objective and scholarly mind.

For example, where vocabulary is concerned, he has (Beckensall 2009) denounced 'turgid, dreadfully invented language' and 'language as ghastly as possible'. Bizarre theories have also been given short shrift, dismissed as 'pretentious nonsense' and 'weird and silly speculation' (Beckensall 2009: 63). Indeed, unfounded speculation is one of his bêtes noires: e.g., 'reason is not to the fore when speculation abounds' (Beckensall 2009: 58), and his own modus operandi is far more sensible – 'When I am speculating and can only partially prove what I am thinking, I prefer to come clean by writing poetry' (Beckensall 2009: 64).

In some publications he has referred to Anati's 'depressing' speculations, and this is certainly justified, particularly when one recalls that author's claim that he believes that we will eventually be able to read rock art simply because prehistoric people could read it! In one of a series of programmes called *The Drawings on the Wall*, broadcast on BBC Radio 4 in early 2008, the Italian researcher referred to the problems involved in interpreting rock art as follows: '[the] most likely outcome is a method in which you can read the rock art like you can read a foreign language. There is a big difference in favour of rock art that this writing can be read in any language. This language was understood 10,000 years ago. Why shouldn't it be understood today? It is just getting into the right state of mind. You have to find the right way to read it.'

That is an astounding, unrealistic and ingenuous pipedream. Rock art is not writing, in any normal sense of the term. And it may seem an obvious statement to make, but the only person who can really tell us what a particular image or set of images in rock art means is the artist him/herself. If the artist's testimony is unavailable, as in the vast majority of cases, then a poor second best is information derived from people belonging to the culture which produced the rock art, or their descendants. Without such testimony, the interpretation of the content of rock art is largely speculation, and to pretend otherwise is dishonest or an illusion. Those like Stan who adopt such a view are routinely branded as pessimists or defeatists by the wishful thinkers, the ones who desperately want us to 'rise to the challenge' and to 'read' rock art; but this is nonsense. 'Pessimist' is a word that idealists use to describe a realist, and it is simple common sense to recognise the limits of what one can do with prehistoric data. This is why increasing numbers of rock art specialists are turning away from interpretation, beyond the most basic level, as a waste of their time and efforts, preferring instead to focus on other more tangible aspects such as content, technology, chronology, location, etc., – as Leroi-Gourhan often said, when one speaks with a dead man, one provides the answers oneself (Bahn 2010: 1–2).

Indeed, Stan's work on rock art has always been characterised by what he has described as

'a confirmed reluctance to make any emphatic declaration of what I think it means' (Beckensall 2009: 60). He has always stressed that 'wishful thinking and determination to prove a theory are hardly the stuff of reason', and that 'it is a mistake to think we can tune in fully to their minds. That is why I am so reluctant to theorise about what I cannot know' (Beckensall 2009: 64, 70).

One of the clearest indications of Stan's sound and sensible approach to rock art studies has been his rejection of what he has called dangerous generalisations, and especially the 'shamania' which

did such damage to the subject in the 1990s and early 2000s. Although he invited me to present my own anti-shamania views in one of his books (Bahn 2009a), it was Stan who gave the most trenchant and eloquent critique:

> We are faced with attempts to explain rock-art as 'Shamanic'. Almost every new recruit to archaeology seems to think that he or she must accept this... One major problem here is that although there are people in the world who do bring in an altered state of consciousness through the rhythmic clapping and dancing of the tribe in a charged atmosphere or who take hallucinogenic drugs to achieve the same state, if we try to transfer this idea to somewhere across the world and to a different time, it is hardly relevant. For me the acid test (forgive the pun) is for people who believe this to demonstrate it with evidence. I have not encountered anything that convinces me that there was anything going on in the rock-art areas that shows this to be true. What on earth am I supposed to be looking for? One reviewer did not like the way I dealt with the issue and thought I ought to explore it further, but how, if none of us knows what he is looking for? There are so many other things to investigate to occupy my time. (Beckensall 2009: 72)

So, to sum up, I wish to applaud the extent and quality of Stan's work, his literary skills, and his devotion to recording the imagery that he loves and bringing it to the attention of the public and especially to youngsters. But above all I want to pay homage to his eminently common-sense approach to the eternal enigmas of what he has studied: 'I doubt whether we shall be given the answers to all our questions on rock-art, but there is certainly no disgrace in admitting what we don't know. On the contrary, our confession of ignorance is perhaps the beginning of wisdom' (Beckensall 2009: 75). Amen to that, and even more so to what could be considered the summary of his life's work: 'With rock art, the enjoyment of places and designs is what matters most to me. I am not worried about what I don't know, because perhaps I never will' (Beckensall 2009: 76).

In closing, I return to my title. Stan is truly the Lord of the Rings – but at the same time one can see him as Gandalf, the wise old wizard who has waged a valiant battle against the ghastly mindless orcs of the dark lord of shamania!

References

Bahn, P.G. 2009. Preface, in S. Beckensall *Prehistoric Rock Art in Britain*: 8. Stroud: Amberley.

Bahn, P.G. 2009a. Shamanism: a dead-end in rock-art studies, in S. Beckensall *Prehistoric Rock Art in Britain*: 150–153. Stroud: Amberley.

Bahn, P.G. 2010. *Prehistoric Rock Art: Polemics and Progress. The 2006 Rhind Lectures.* Cambridge: Cambridge University Press.

Beckensall, S. 2008. *Unquiet Grave. A Novel for Young People*. Newcastle: Powdene.

Beckensall, S. 2009. *Prehistoric Rock Art in Britain*. Stroud: Amberley.

Frodsham, P. 2002. Lord of the cups and rings: the Beckensall trilogy. *Northern Archaeology* 19: 39–47.

Meighan, C. 1982. Rock art and archaeology, in F. Bock (ed.) *American Indian Rock Art* VII/VIII: 225–229. El Toro (CA): American Rock Art Research Association.

15

An inspiration for community archaeology volunteers

Phil Bowyer and Andy Curtis

One of the most important of all Stan Beckensall's contributions over the years has been his extraordinary role in inspiring and facilitating community engagement in archaeology and local history. We are just two of what must be many hundreds, possibly thousands, of individuals who have been prompted by Stan's work to wander the wilds of Northumberland searching out ancient sites with one of his books in hand. Although his work has been published since 1974, it was his two locally printed handbooks, *Prehistoric Rock Motifs of Northumberland, Volumes 1 and 2* (Beckensall 1991, 1992), that many amateur enthusiasts carried around the county as their guide and reference. In his foreword to Volume 2 Richard Bradley says:

> In writing this book, he [Stan] has made a considerable contribution to our knowledge of prehistoric Britain. More important, his work conveys the excitement of discovery and his feeling for the carvings and those who made them. This is not the prerogative of those who practice archaeology as a career. He shares his work with a much wider public, and this is what makes this book so attractive. Like the carvings themselves, it is for everyone.

In this paper we are sure that we speak for the countless individuals who have been inspired by his work to engage with their local heritage and themselves help to bring this alive in the present day. Through his books, his talks, and his long-serving community involvement, Stan is a familiar figure to so many who are grateful for the experience of knowing him. In the limited space available we will focus on the following aspects:

- Personal accounts of the experience of encountering Stan's work.
- An outline of just one example of his long-standing engagement in the development of community archaeology, as President of Tynedale North of the Wall Archaeology Group for the past decade.
- A selective summary of some recent rock art discoveries made as a result of his inspiration, guidance and support.
- The need to improve digital access to rock art information and for protection of rock art sites.

Our experiences of encountering Stan's work

Part 1 by Phil Bowyer

Prior to getting the first of Stan's little books on *Prehistoric Rock Motifs of Northumberland*, my wife, Anne, and I had used many of our holidays to visit various ancient sites around Britain and had also become fascinated with the landscape at Ravensheugh Crags just a few miles from our home in the North Tyne Valley. We had visited the cup-marked Goatstones 'four poster' stone circle several times and wandered around the area looking at various lumps and bumps. We used to muse about how good it would be to be able to walk around with an archaeologist who could decipher the history of the local landscape for us.

Coming across Stan's book opened our eyes to just how much rock art there was in Northumberland and led us off on a series of day trips into north Northumberland, trekking between the various rock art sites that Stan had detailed. His combination of clear line drawings, local maps and grid references for each site made this 64-page, A5-size, self-published little book the most informative of companions. The book was clearly a labour of love motivated by Stan's wish to share the fruits of his years of exploration and recording with others. It did not need lots of glossy colour photos or high-end graphics. In fact, the homely nature of the publication just added to the authenticity of Stan's love of the subject matter and his determination to make it accessible to others.

Some years later we came across the online *Beckensall Archive* hosted by Newcastle University. At last, his work was getting wider recognition and respect. Whilst in 1992, the second volume of his locally produced *Prehistoric Rock Motifs of Northumberland* had made just brief reference to the Goatstones four-poster, we were very excited to discover from our search of the online archive that a further dozen cup-marked stones had been recorded at Ravensheugh Crags. Some of these Stan had recorded himself and others had been recorded during a joint site visit with Aron Mazel from Newcastle University, who had collaborated with Stan on the creation of the online archive. Within days, Anne and I were back at Ravensheugh Crags seeking

out all the new finds and making our own photographic record of these and a couple of further markings that we thought might also be rock art.

A couple of weeks later we saw that Aron Mazel was giving a talk for the Hexham Local History Society, so we went along. We took our photos just in case there was a chance to have a chat with Aron or Stan. As it happened, both were surrounded by audience members after Aron's excellent presentation on South African rock art and its contrasts to Northumbrian rock art and we ended up meeting Paul Frodsham for the first time and finding out about the Altogether Archaeology community project. This led to our first engagement with actual archaeology fieldwork.

At the beginning of 2012, Altogether Archaeology was awaiting Heritage Lottery Fund approval for a continuation of its outstanding community archaeology programme, so Anne and I decided to use what we had learned about landscape survey to carry out our own survey at Ravensheugh Crags. We now knew how to accurately record various lumps and bumps even if we were unsure about how to interpret some of them. We also discovered a further half-dozen decorated stones. Our first survey report to Chris Jones, the Northumberland National Park Archaeologist, was well received and we decided to extend our area of survey further towards Hadrian's Wall.

The upshot of this was that in 2013, based upon our two 2012 surveys, Northumberland National Park and Altogether Archaeology organised a Level 3 Landscape Survey for community volunteers at Ravensheugh Crags (Altogether Archaeology 2015) and later, a couple of miles away, at Standingstone Rigg (Altogether Archaeology 2013). This saw the discovery and recording of yet more rock art and the establishment of Tynedale North of the Wall Archaeology Group (NOWTAG). We will return to Stan's role in these community surveys and in the development of NOWTAG after Andy's account of his own experience of encountering Stan's work.

Part 2 by Andy Curtis

I first discovered Northumberland's rich array of prehistoric rock carvings in the early 1990s when we came to live here from Edinburgh. I was interested in maps and the outdoors and was intrigued by the same two thin paperback volumes noted above, obtained from the little bookshop in the old Museum of Antiquities under the arches of Newcastle University. Finding the carved rocks from Stan's descriptions and maps became a passion and led me to some outstandingly beautiful places. Both the places and some of the carved rocks have since become good friends, always worthy of repeat visits.

I soon found there were other people out there, mostly amateurs, interested in the carved rocks, most of them enthused by Stan's writing. There was a loose group of enthusiasts with huge knowledge and understanding. Once a year in the spring, there would be an informal Rock Art Meeting (RAM) held in a different location. The main instigator for these was Jan Brouwer from the Netherlands who visited each year with his friend, Gus Van Veen. Jan ran the British Rock Art Blog and compiled a comprehensive website of rock art photographs, taken by himself and others all over the country. With this group I visited many sites in Northumberland, Durham, Galloway, Argyll, Perthshire and Yorkshire. All the rock art was similar; cup-and-ring motifs were common, but often with local variation or style.

Stan Beckensall was deservedly awarded an honorary PhD from the University of Newcastle in 2004. His archive was donated to the University and made available on a pioneering website in 2006, the work of Aron Mazel and Horacio Ayestaran (2010). Later, I was able to volunteer for the Northumberland and Durham Rock Art Project (NADRAP), joining other volunteers, several who have become good friends. We spent three years building on this earlier work and developing a method of 3D photographic reconstruction (photogrammetry) with the assistance of English Heritage. The result was the England's Rock Art website, ERA (unfortunately no longer available online at the time of writing). At the website's launch event, I gave a short talk on behalf of the volunteers. Some of the presentations were rather technical and even on the dry side. Stan came up to me afterwards and said something along the lines that at least mine showed enthusiasm even though the archaeology was a little arbitrary. I have to tell him that, sadly, very little has changed there!

Northumberland's cup-and-ring carvings are clustered in certain places. These places retain an emotional power which for me is a combination of location, views, wildlife, loneliness and their raw beauty. This is magnified by the history of what has gone before – a continuity of community. Stan describes this in his book, *Northumberland: The Power of Place* (Beckensall 2001: 9):'Places generate feelings: some do this because we have learnt what happened there, some because they are physically striking or beautiful, and others because they have some indefinable attraction or quality.'

Jan Brouwer became ill and died at home in the Netherlands in April 2011. The group, of which he was an important part, felt the need to hold a memorial. We held a brief ceremony in Spring 2012 in the garden of the ruined farm buildings of Blawearie, close to the Northumberland rock art first recognised as ancient on the ridge at Old Bewick. We drank some whisky, looked at some rock art and put the world to rights. The symbols

made a connection between living and past members of the group, but also back through time to those that originally made and understood their meaning. From that moment, cup-and-ring carvings and their locations became to me things of remembrance and symbols of a wider community. The meaning of the symbols has been lost to us over the millennia and is never likely to be understood. However, the symbols on the rocks have the power to hold groups together, both now and over time. Perhaps the places were actually cemeteries, although we have little evidence that the dead were buried in the vicinity. Burial cairns built by later people are often located nearby. Perhaps they were places where cremated ashes were scattered, or perhaps disposal of bodies went on elsewhere.

These sites, with their carved rocks, would become important places for the community – perhaps in a setting high above where they normally lived; places to think and remember, seek assistance from departed family members or just rest. It is unlikely death was hidden or unusual, but rather merely part of the cycle of life. The places themselves may of course have been chosen because of prior importance, on route-ways, viewpoints or with agricultural connections.

Prehistoric rock art has been a very personal journey of discovery. Why not go and sit for a time in quiet refection on Chatton Park Hill, in Ketley Crag rock shelter, on the ridge at Old Bewick, at Roughting Linn, on Weetwood Moor, or in one of the many other magical places you know about, and see what you think? Bereavement makes for powerful emotions: powerful symbols shared between living and dead, carved as a lasting memorial, creating a place to visit, reflect and consult.

Today, we continue to visit known rock art locations, and sometimes find new panels in the course of our local archaeology landscape surveys. They still hold their mystery but make a personal connection over the millennia, a continuity. People were here, they knew and loved this landscape too. We are bound by the stones and their enigmatic symbols.

Stan and Tynedale North of the Wall Archaeology Group
(by Phil Bowyer)

For many years, Stan had been actively working with community volunteers, but he was already 81 years old when I first met him in June 2013. We were into the second day of the Altogether Archaeology and Northumberland National Park community landscape survey at Ravensheugh Crags, west of Simonburn in the North Tyne valley when we noticed Stan walking towards the site with Paul Frodsham.

Upon arrival Stan was immediately engaging with the crowd of volunteers who had gathered around him and soon holding everyone's attention with an *impromptu* exposition on the characteristics of Northumbrian rock art sites and comparisons between this and other locations around the county. He also listened intently to volunteers describing what they had found thus far, and the ensuing question and answer session was only paused by the need to return to the survey tasks in hand. I was also struck by the obvious degree of respect that the professional archaeologists leading the survey had for Stan's views regarding features that were being identified at the site.

After viewing one of the newly discovered rock art panels that had just been uncovered, Stan offered to take a rubbing of the motifs. Such was the interest in this that soon everyone had gathered around as Stan set to work (Figure 1). Although everyone had already seen the panel, we were all fascinated as Stan's wax crayon revealed more and more motifs on his length of newsprint paper. His commentary as he worked drew everyone into a sense of excitement about the image of the panel that was emerging. Despite the fact that we now have photogrammetry available to make digital image records of rock art, there was something very special about what was, in effect, a masterclass in exploring rock art panels with one's fingertips and watching the details emerge on the paper. For those of us who had studied his line-drawings from the hundreds of rubbings he had taken over the years it was a treat to observe Stan at work. It was typical of him that, after some volunteers had expressed an interest in learning his technique, he returned a few days later to give some hands-on tuition (Figure 2). Following this training, Anne Bowyer produced line drawings from Stan's rubbings at Ravensheugh Crags (Figure 3). She has since been able to undertake rubbings of other rock art discoveries.

Tynedale North of the Wall Archaeology Group (NOWTAG) was established following the Ravensheugh Crags survey and Stan kindly agreed to be our Honorary President. In September 2013, we participated in the Altogether Archaeology and Northumberland National Park community survey at Standingstone Rigg. Despite the remoteness of the site, Stan joined the volunteers in producing a detailed survey of a possibly Neolithic stone row (Figure 4). Stan continued to take an active interest in the work of the group, contributing to talks and providing advice and support for our activities. He gave freely of his time and expertise, and I particularly appreciated our discussions regarding the planning for the Tynedale Rock Art Project that NOWTAG undertook in 2016–17. This Project had four main aims:

Figure 1. Stan Beckensall rubbing a decorated stone at Ravensheugh Crags. Photo: Paul Frodsham.

Figure 2. Stan Beckensall teaching his stone-rubbing technique.

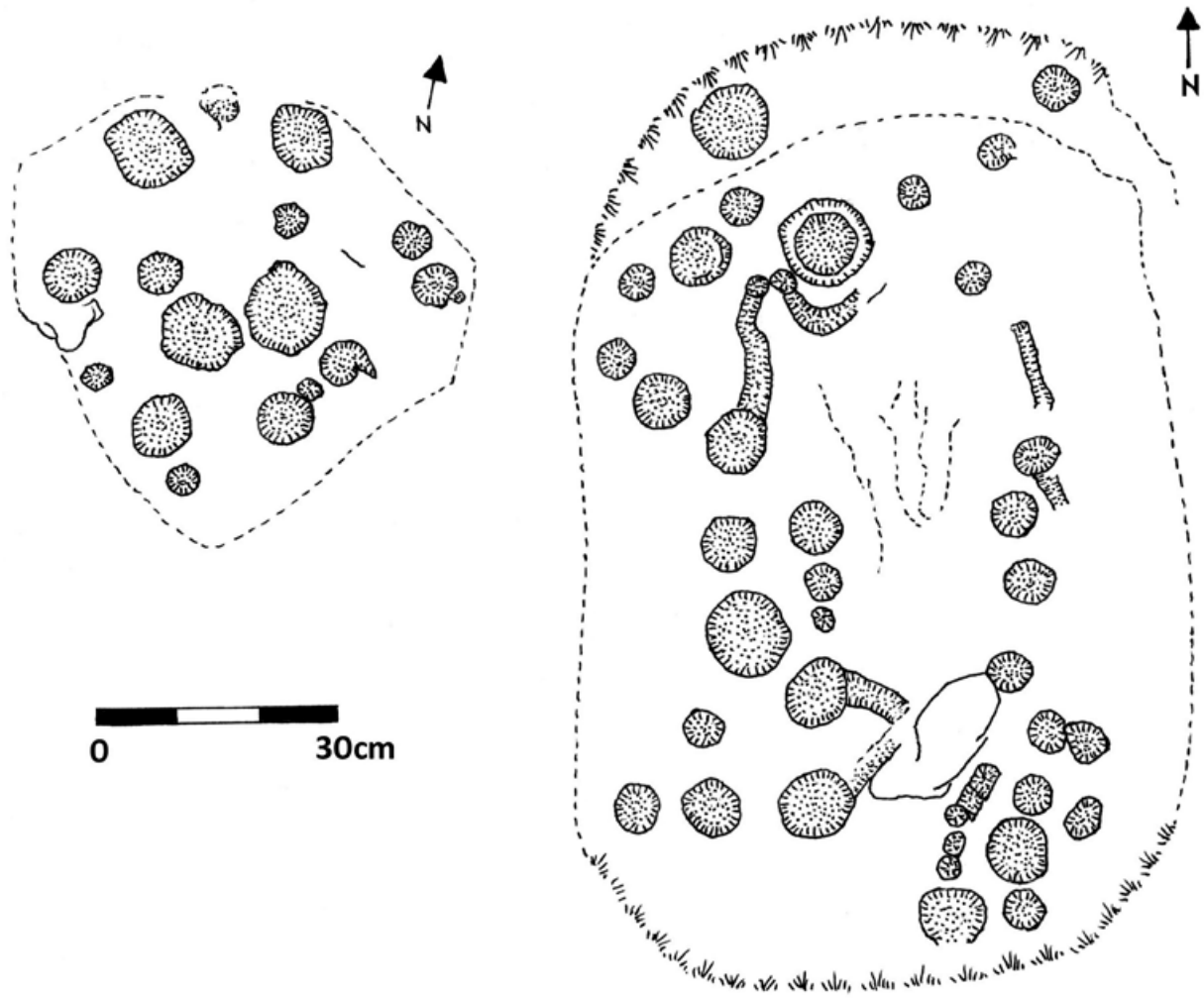


Figure 3. Decorated stones from Ravensheugh Crags. Rubbings by Stan Beckensall 2013, drawn by Anne Bowyer.

1. To conduct and record condition assessments of open-air rock art using the CARE application format developed by Newcastle University and Queen's University, Belfast. Assessment records were submitted to the CARE Project data centre at Newcastle University.
2. To add to and update data held on the ERA (England's Rock Art) database. This complemented the work done in the 2000s by volunteers on the Northumberland and Durham Rock Art Project (NADRAP). Some members of our recording teams had participated in that programme.
3. To undertake photogrammetric imaging of selected stones to generate 3D models using Agisoft Photoscan software.
4. To compile a gazetteer of rock art sites in Tynedale.

The vulnerability of open-air rock art sites had long been a major concern for Stan, and the project provided an opportunity for community volunteers to systematically monitor and record the condition of this irreplaceable local heritage. Photogrammetric technology had offered new ways of recording and presenting images of the decorated stones with minimal need for touching the stones. Now in his 90th year, Stan remains our Honorary President and, although he has to be more selective about how he uses his energies, NOWTAG continues to value his support, guidance and inspiration. Much of the work of NOWTAG can be seen on the website (Tynedale North of the Wall Archaeology Group).

The online Beckensall Archive and the ERA website provided invaluable reference sources for the selection of sites to be assessed and preparations for visits by volunteer teams. It is therefore a matter of considerable regret that today the Beckensall Archive is no longer accessible and the ERA database cannot be fully used. In an era when communication and information technology has developed so rapidly and extensively, it is disturbing to note these backward steps for access to rock art information. It is also a clear testament

Figure 4. Stan Beckensall on the drawing board with volunteers at Standingstone Rigg.

to Stan's outstanding achievement in recording and then disseminating knowledge of our rock art heritage without all these new technological aids.

Some recent new rock art finds
(by Andy Curtis)

There is certainly more undiscovered rock art out there and, as the following recent finds show, new examples still regularly turn up.

In 2015, a new and beautiful example of Northumbrian rock art was found by a local dog-walker at Wallridge. It had been unearthed by the landowner who had reopened an old quarry on what had formerly been pastureland, part of Wallridge Moor, but recently ploughed for arable farming. Typically for Northumberland rock art, the site lies in an open and extensive landscape, with a clear view to Simonside in the north. It is a nice example of cup-and-ring rock art of a complexity more often found in north Northumberland than here, much further south (Figure 5). The panel, on the horizontal surface of natural sandstone bedrock, has an array of cups with multiple rings, deep cups with more delicate distorted rings, cups without rings, a dumb-bell, and a delightful and intriguing set of curving grooves which flow over the rock surface, connecting many of the motifs and uniting the overall design. It appears to have been made by an accomplished prehistoric artist, designed to fit in relation to the natural cracks in the rock surface. The creation of a 3D model of this panel using photogrammetry (Figure 6; Sketchfab a) enables people to examine the surface of the carved rock from anywhere in the world without the need of its further exposure, handling or cleaning. The models can be artificially lit in ways rarely found naturally in the field and may also help to reveal faint or eroded carvings.

The finding of the Wallridge panel perhaps answered another puzzle. In 2007, a large carved boulder had been spotted by archaeologists on an old sofa at Hollinside Farm in Gateshead where it is now a garden feature. We knew it as the 'Sofa Stone'. The owner let the NADRAP team record it but would only tell us that it had been transported on a tractor from somewhere near Belsay. The same man was later identified at Wallridge by a team member making it likely that the Sofa Stone (Figure 7) had originally come from the same location.

Work seems to have ceased at the Wallridge quarry and the panel remains exposed. There may be other rock art here on what appears to be an extensive bed of horizontal sandstone close to the surface, most of it hidden under the turf and dumped rubble. Should we be so complacent about the survival of this prehistoric gem when weathering and human activities can so easily destroy what is left? It was carved here under the wide Northumberland sky for a reason and should remain *in situ*.

Figure 5. Prehistoric rock art panel on Wallridge Moor.

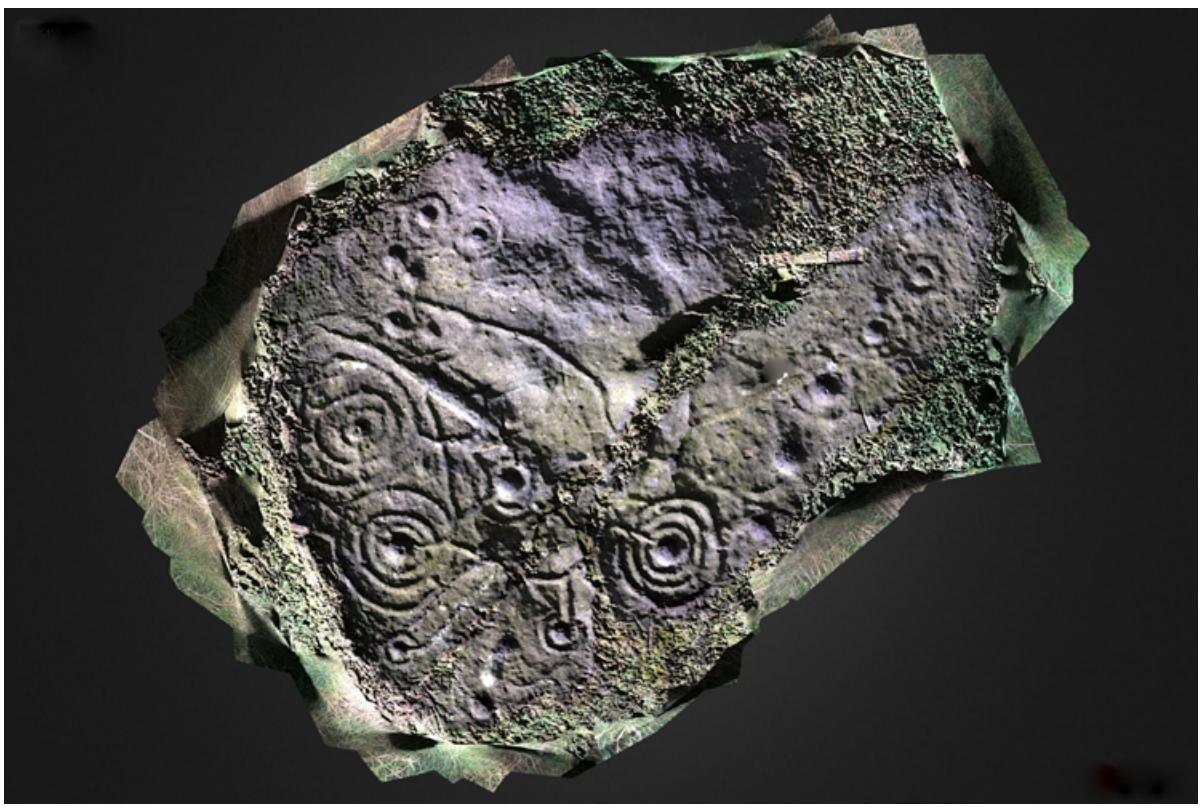


Figure 6. Screen capture from 3D model of Wallridge panel from Sketchfab.

Figure 7. Hollinside Farm (also known as the Sofa Stone). Photo: D. Tuck.

Figure 8. The Birney Hill Stone outside Great North Museum (2015), Newcastle upon Tyne.

There have been many other finds of prehistoric rock art in southern Northumberland, often on boulders, or broken and reused stone. A large cup-and-ring carved boulder weighing nearly 3 tonnes was found in 2015 during building operations at Birney Hill near Ponteland (Figure 8) and acquired by the Society of Antiquaries of Newcastle upon Tyne. It is now at the Great North Museum in Newcastle.

Another recent find, closer to the more traditional heartland of Northumbrian rock art, was made at Clennell near Alwinton in the southern Cheviot Hills. The farmer had overturned a large stone on the hillside and discovered carved motifs underneath. Members of the Mountain Navigation School who spotted it (and another carved stone lying at a nearby sheepfold) recognised them because of Stan's writing and word spread to interested parties. It was soon realised that the same panel had already been spotted by local enthusiasts and reported to the archaeologist, Richard Carlton, who had produced a poster about it for a conference on prehistoric rock art in Newcastle some months earlier. It was, however, nice to accompany Stan and his friends on a visit there in February 2020 (Figure 9).

Conclusion

It was sad to see the Beckensall Archive eventually shut down, and the ERA website become unusable, although archived at the Archaeology Data Service. We appreciate that there are financial pressures upon resources for archaeology, but one must question the priorities that led to the removal of access not only to Stan's body of work, but also that of so many community volunteers, inspired by Stan, who put in so much effort to continue adding to the discovery and proper recording of this irreplaceable rock art heritage.

We should note that others, in addition to Stan, have made significant contributions. Jan Brouwer developed the British Rock Art Collection (BRAC) comprising more than 18 000 photos over 1200 sites. His original website also went offline with little warning, but the material was retrieved by Graeme Chappell and remains a lasting legacy on a new website (British Rock Art Collection). Richard Stroud continues to build an impressive archive of 3D models of British rock art on the website (Sketchfab b, England's Rock Art Archive).

As Stan has shown us, amateur enthusiasts have a lot to offer and can dedicate significant time to such projects, creating resources that hopefully allow people to view the carved rocks without the need to remove covering vegetation, thus protecting them from further exposure and weathering. Aware of Stan's work in the discovery and analysis of Britain's rock art, there are more people who find it impossible to pass any rock, even one apparently well known, without taking a

Figure 9. Stan Beckensall and friends examine the new rock art find at Clennell.

longer look at its surface, just in case something turns up. It might just need that perfect light, rain on its surface, or a compatible frame of mind.

The conservation of open-air rock art does present a major challenge. Consideration of the strategies and techniques that may be available involves both scientific and technical issues, resource implications and questions of how to balance physical conservation and accessibility in the field. We do not have the answers to these questions, but we are sure that there could be no more fitting tribute to Stan's work than a concerted effort to find ways of resolving these challenges.

References

Altogether Archaeology, 2013, Altogether Archaeology Fieldwork Module 8a. Ravensheugh Crags, Northumberland. Community Landscape Survey, viewed 23 April 2022, <https://altogetherarchaeology.org/reports.php>

Altogether Archaeology, 2015, Standingstone Rigg Stone Row. Volunteers' Survey 2013, viewed 23 April 2022, <https://altogetherarchaeology.org/reports.php>

Beckensall, S. 1991 and 1992. *Prehistoric Rock Motifs of Northumberland: A Complete Guide*. Volumes 1 and 2. Reprinted by The Abbey Press, Hexham, 1997.

Beckensall, S. (2001). *Northumberland: The Power of Place.* Stroud: Tempus.

British Rock Art Collection, a rock art gallery for the British Isles, dedicated to Jan Brouwer (1944-2011), viewed 13 February 2022, <http://ukra.jalbum.net/brac>.

Mazel, A. and H. Ayestaran. 2010. Visiting the Northumberland rock art virtually: the Beckensall Archive analysed, in T. Barnett and K. Sharpe (eds) *Carving a Future for British Rock Art. New Directions for Research, Management and Presentation*: 140–150. Oxford: Oxbow Books.

Sketchfab a, 3D models by NOWTAG, model of rock art panel from Wallridge Moor, viewed 13 February 2022, <https://skfb.ly/6tARC>.

Sketchfab b, England's Rock Art Archive, using photogrammetry to record rock art since 2005, viewed 13 February 2022, < https://sketchfab.com/EnglandsRockArt>.

Tynedale North of the Wall Archaeology Group, viewed 13 February 2022, <https://tynedalearchaeology.org.uk>.

A Beckensall bibliography

Publications on rock art and related topics by Stan Beckensall

Compiled by Kate Sharpe

Beckensall, S. 1974. *The Prehistoric Carved Rocks of Northumberland* (Northern History Booklets 57). Newcastle upon Tyne: Frank Graham.

Beckensall, S. 1976a. *Life and Death in Prehistoric Northumberland*. Newcastle upon Tyne: Frank Graham.

Beckensall, S. 1976b. Prehistoric rock carvings in Northumberland. *Almogaren* 7: 183–189

Beckensall, S. 1976c. The excavation of a rock shelter at Corby's Crags, Edlingham. *Archaeologia Aeliana* 5th series 4: 11–16.

Beckensall, S. 1976d. The excavation of a rock-shelter at Corby's Crags, Edlingham, Northumberland (NU 1280 0965). *Archaeological Newsbulletin for CBA Regional Group* 12: 3–4.

Beckensall, S. 1977. Northumberland. *Archaeological Newsbulletin for CBA Regional Group 3* 2nd series 1: 16–18.

Beckensall, S. 1980. Recent discoveries of prehistoric rock-carvings in Northumberland. *Almogaren* 9/10 (1978–79): 333–346.

Beckensall, S. 1983. *Northumberland's Prehistoric Carvings. A Mystery Explained*. Rothbury: Pendulum Press.

Beckensall, S. 1985. *Rock Carvings of Northern Britain* (Shire Publications 47). Princes Risborough: Shire Publications.

Beckensall, S. 1990. The rock motifs, in C. Smith (ed) *Excavations at Dod Law West Hillfort, Northumberland Northern Archaeology* 9: 39–44.

Beckensall, S. 1991. *Prehistoric Rock Motifs of Northumberland,* 1. Hexham: privately published.

Beckensall, S. 1992a. *Prehistoric Rock Motifs of Northumberland,* 2. Hexham: privately published.

Beckensall, S. 1992b. *Cumbrian Prehistoric Rock Art: Symbols, Monuments and Landscape*. Hexham: privately published.

Beckensall, S. 1992c. Runes with a view. *Archaeology in Northumberland 20.*

Beckensall, S. 1993a. Ronald Wilson Boyd Morris BL FSA FSA(Scot). *British Archaeological News* 2nd series 1: 11.

Beckensall, S. 1993b. What future for our cups and rings? *British Archaeological Newsletter* 6: 3.

Beckensall, S. 1993c. Obituary: Ronald Wilson Boyd Morris, BL, FSA, FSA(Scot). *Northern Archaeology* 11: 73.

Beckensall, S. 1994. *Life and Death in the Prehistoric North*. Thropton: Butler Publishing.

Beckensall, S. 1995. Recent discovery and recording of prehistoric rock motifs in the North. *Northern Archaeology* 12: 9–34.

Beckensall, S. 1996. Symbols on stone: the state of the art. *Northern Archaeology* 13/14: 139–146.

Beckensall, S. 1997. Prehistoric rock art – progress and problems. *At the Edge* 8. Nottingham.

Beckensall, S. 1998a. My favourite panel of rock art. *Archaeology in Northumberland* 7.

Beckensall, S. 1998b. An ideology that faded in a new age. *British Archaeology* 40: 8–9.

Beckensall, S. 1998c. The archaeology of Warden Hill. *Hexham Historian* 8: 2–19.

Beckensall, S. 1999. *Art On the Rocks.* Devizes: 3rd Stone 35.

Beckensall, S. 1999a. *British Prehistoric Rock Art*. Stroud: Tempus.

Beckensall, S. 1999b. More rock art discoveries, *Archaeology in Northumberland* 11.

Beckensall, S. 1999c. Discoveries at Ravensheugh Crags, *Archaeology in Northumberland, 1998–1999* 12.

Beckensall, S. 2001a. *Prehistoric Rock Art in Cumbria: Landscapes and Monuments*. Stroud: Tempus.

Beckensall, S. 2001b. *Prehistoric Rock Art in Northumberland*. Stroud: Tempus.

Beckensall, S. 2001c. British Rock Art, in *Entering 2000: The State of Rock Art (20 Years of C.A.R.), C.A.R., Comite International ICOMOS pour l'Art Rupestre*.

Beckensall, S. 2002a. British prehistoric rock-art in the landscape, in G. Nash and C. Chippindale (eds) *European Landscapes of Rock-Art*: 39–70. London: Routledge.

Beckensall, S. 2002b. British Prehistoric Rock Art. *Adoranten*: 39–48.

Beckensall, S. 2002c. More prehistoric carved rocks found, *Archaeology in Northumberland* 16.

Beckensall, S. 2002d. New rock art: new cup-and-ring carvings at Ketley Crag, Northumberland, at Blarbuie in Argyll, and at Ashover in the Peak District, *Current Archaeology* 179: 461–462.

Beckensall, S. 2002e. *Prehistoric Rock Art in Cumbria*. Stroud: Tempus.

Beckensall, S. 2003. *Prehistoric Northumberland*. Stroud: Tempus.

Beckensall, S. 2004a. British prehistoric rock art, in U. Bertilsson and L. McDermott (eds) *The Future of Rock Art – A World Review* (Rapport fran Riksantikvarieambetet 2004, Vol. 7): 40–49. Stockholm: National Heritage Board of Sweden.

Beckensall, S. 2004b. The significance of the distribution of rock art in Britain, in *XXI Valcomonica Symposium: New Discoveries, New Interpretations, New Research Methods*: 78–90. Capo di Ponte: Edizione Del Centro.

Beckensall, S. 2004c. British rock art, in *The Valcomonica Symposiums 2001 and 2002*: 90–99. Stockholm: National Heritage Board of Sweden.

Beckensall, S. 2005. *The Prehistoric Rock Art of Kilmartin*. Kilmartin: Kilmartin Trust.

Beckensall, S. 2006. *Circles in Stone. A British Prehistoric Mystery*. Stroud: Tempus.

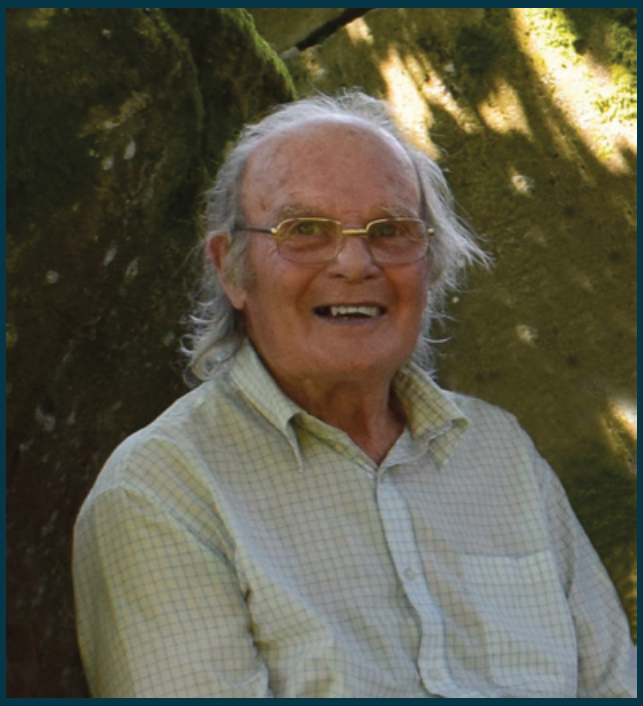
Beckensall, S. 2012. Advances in the study of British prehistoric rock art, in A.M. Jones, J. Pollard, M.J. Allen and J. Gardiner (eds) *Image, Memory and Monumentality. Archaeological Engagements with the Modern World* (Prehistoric Society Research Paper 5): 273–280. Oxford: Oxbow Books.

Beckensall, S. and P. Frodsham. 1998. Questions of chronology: the case for Bronze Age rock art in Northern England. *Northern Archaeology* 15/16: 51–70.

Beckensall, S. and T. Laurie. 1998. *Prehistoric Rock Art of County Durham, Swaledale and Wensleydale*. Durham: County Durham books.

Beckensall, S., I. Hewitt and I. Hewitt. 1987. Rock art of prehistoric Britain. *Archaeology Today* 8(3): 48–53.

Beckensall, S., I. Hewitt and I. Hewitt. 1991. Prehistoric rock motifs recently recorded in Northumberland. *Archaeologia Aeliana* 5th series 19: 1–5.



Presented to Stan Beckensall on his 90th birthday, this diverse and stimulating collection of papers celebrates his crucial contribution to rock art studies, and also looks to the future. It should be of value to students of prehistoric Britain and Ireland, and anyone with an interest in rock art, for many decades to come.

Stan has done a phenomenal amount of work over recent decades, on an entirely amateur basis, discovering, recording and interpreting Atlantic rock art ('cup-and-ring marks') in his home county of Northumberland and elsewhere. Much of this work was done in the 1970s and 1980s when the subject, now increasingly regarded as mainstream within Neolithic studies, was largely shunned by professional archaeologists.

Anyone with an interest in rock art is greatly indebted to Stan, not only for his work and his wisdom, so graciously shared, but also, as the contributors to this volume make clear, for the inspiration he has provided, and continues to provide, for work undertaken by others.

BELIEF in the NORTH EAST

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