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Long Distance Connections Within Britain and Ireland: the Evidence of Insular Rock Art

By RICHARD BRADLEY

Discussions of contacts between Britain and Ireland usually focus on monuments and on portable artefacts such as Grooved Ware, Beakers, and metalwork. New research on insular rock art suggests that it originated in the Middle to Late Neolithic period and continued to be used and re-used into the Early Bronze Age. This paper considers its relationship with decorated passage graves and other structures. It argues that the distribution of rock art sheds further light on connections between these islands. Estuaries, bays, and landing places were important, but the siting of pecked motifs indicates other links along three overland routes between the North Sea and the Irish Sea. Certain practices were shared between megalithic tombs and recently excavated rock carvings. It is possible that they expressed similar beliefs at a time when long distance travel was important.

Keywords: Rock art, passage graves, Grooved Ware, navigation, travel, cosmology

In 2019 I discussed relationships between Britain and Ireland during the Late Neolithic period. That study was based on artefacts and monuments and emphasised the links between Orkney and the Boyne Valley (Bradley 2019, 96–124; cf. Sheridan & Cooney 2014; Carlin 2017; Carlin & Cooney 2020; www.scarf.scot/thematic/boyne-to-brodgar). This paper reviews some of the same issues but employs another source of evidence (Figs 1 & 2).

The neutral term ‘rock art’ extends from the images associated with passage graves to the embellishment of geological features. This kind of information has played a limited role in reviews of long distance contacts. Decorated tombs occupy an important part in accounts of the Neolithic period (Shee Twohig 1981; Eogan 1999; Eogan & Shee Twohig 2022) but open-air rock art is seldom studied in as much detail. Although there have been new discoveries, they rarely make a wider contribution.

One difficulty is that insular rock art is often described as ‘abstract’. Ethnographic evidence shows that this term can be misleading (Munn 1973) but the images have not aroused the interest generated by pictures of people,

animals, and objects. Naturalistic elements do raise problems of interpretation but their visual appeal is obvious. Almost 50 sites feature on the UNESCO World Heritage List but practically all of them include some figurative elements (www.bradshawfoundation.com.rockartnetwork). Non-figurative designs like those in Britain and Ireland attract less attention. A telling contrast is with the decorated panels at Tanum in Sweden which do enjoy special status. Because they depict boats and recognisable types of artefacts, they provide evidence of long distance connections in the Bronze Age (Ling 2014).

While this paper draws on the recent studies of insular rock art to investigate contacts between Britain and Ireland between 3000 and 2000 BC, the main focus is on prehistoric monuments and decorated surfaces during the Neolithic period. It considers the ways in which individual sites were employed, their distinctive symbolism, and their positioning in relation to long distance journeys by land and water.

AN OUTLINE CHRONOLOGY

Evidence from monuments

One reason why insular rock art was seldom studied is that its date was uncertain, but a new consensus is

Department of Archaeology, University of Reading, Whiteknights Box 227, RG6 6UR. Email: r.j.bradley@reading.ac.uk



Fig. 1.

A typical panel of British rock art at Allt Coire Phadairlidh, Scotland (photograph: Aaron Watson)

emerging. This section treats decorated monuments separately from open-air sites.

Initial developments (Early to Middle Neolithic)

The oldest rock art should belong in the early or mid-4th millennium BC, when a mortuary structure at Dalladies long barrow in north-east Scotland contained a cup-marked slab; the dating evidence is imprecise (Piggott 1974; Sheridan & Schulting 2020). There are similar motifs on the capstones of portal tombs. New research suggests that these monuments were among the first to be built (Lynch 2014). Their overall distribution coincides with that of surfaces with the same motif (Jones & Kirkham 2013), and Cummings and Richards (2021) suggest that pieces with a special significance were introduced when megaliths were constructed.

The floruit of insular rock art (Middle to Late Neolithic)

The re-use of already decorated stones also featured in the Irish cemetery of Loughcrew where there are two

sources of information (Shee Twohig *et al.* 2010). It includes decorated outcrops from which pieces seem to have been detached and weathered fragments with similar decoration in the fabric of Cairn T, where they are associated with megalithic art in fresh condition. Most accounts suggest a context in the late 4th millennium BC (Eogan & Cleary 2017, 331–79). That is consistent with the re-use of raw material in the passage graves of the Boyne Valley. Motifs on the back of individual kerbstones at Newgrange resemble those in the open air but, in this case, they were well preserved when the structure was built (O’Kelly 1982, 146–85).

A sequence of decorated panels is associated with Irish passage tombs. In some cases, incised designs are earlier than pecked designs, but they can also be combined with one another (Eogan 1997; Eogan & Shee Twohig 2022). Other developments concern ways of working the stone (O’Sullivan 1986). The first images were lightly pecked (O’Sullivan’s ‘depictive’ style), but later images were bolder and moulded to the contours of the rock (his ‘plastic’ style). There is

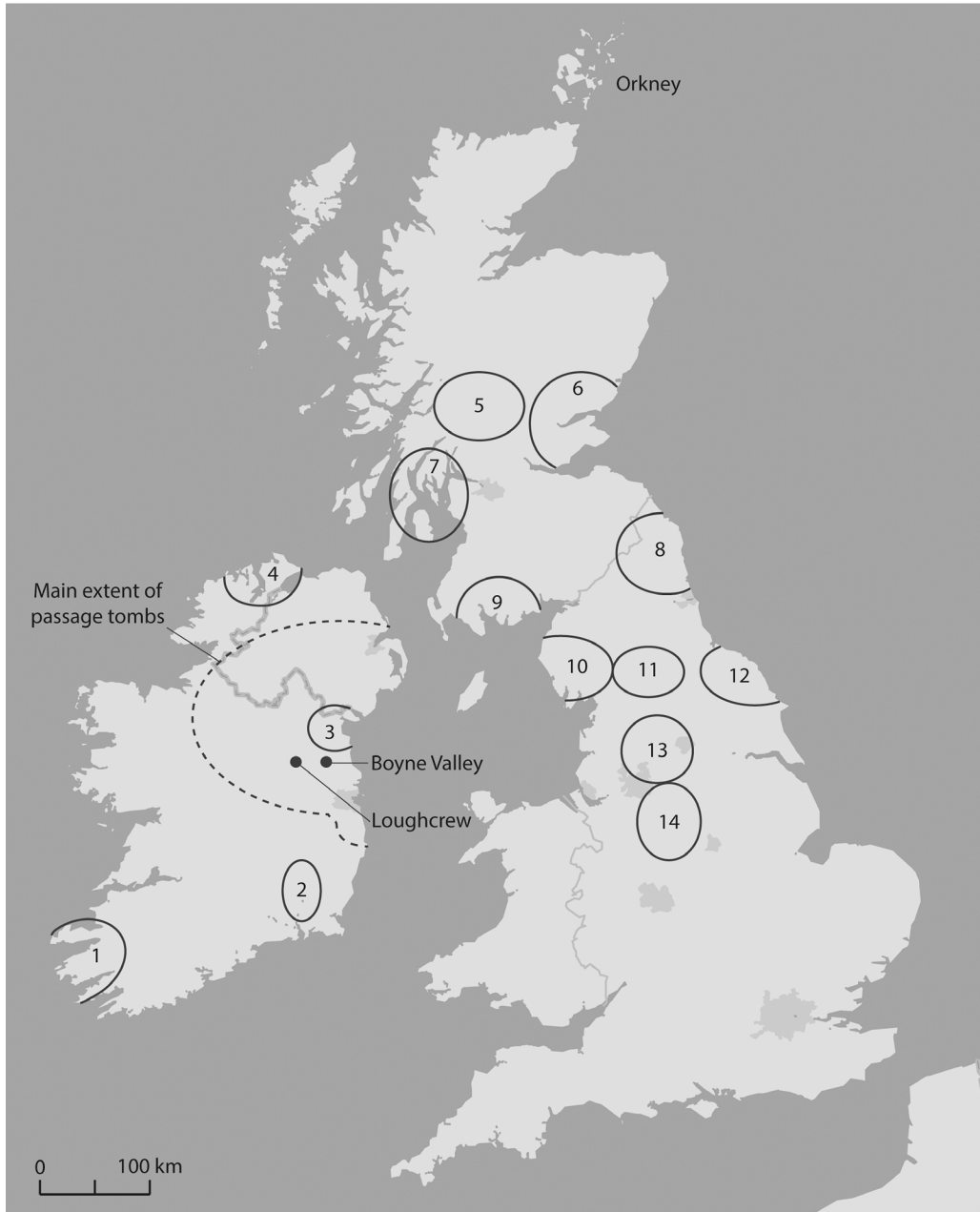


Fig. 2.

The main concentrations of rock art in Ireland and Britain. This map records the distribution of curvilinear images – mainly cups and rings – and does not include the areas in which most of the motifs are cup marks. Places mentioned by name in the text are noted according to these regions. Key: 1: SW Ireland (Dingle, Iveragh); 2: SE Ireland; 3: Co. Monaghan & Co. Louth (Dundalk Bay); 4: Inishowen (Doagh Island); 5: Southern Highlands (Allt Coire Phadairlidh, Ben Lawers, Strathtay, Upper Gaskan, Loch Tay, Urlar); 6: Angus; 7: Western Scotland (Achnabreck, Auchentorlie, Ballochmyle, Clydebank, Kilmartin Glen, Ormaig, Temple Wood, Torbhlaren); 8: Northumberland (Hunterheugh, Morwick); 9: Galloway; 10: Cumbria (Copt Howe, Long Meg); 11: North Pennines (Barningham Moor & sites around Barnard Castle); 12: North York Moors (Fylingdales); 13: Southern Pennines (Backstone Beck, Rombalds Moor); 14: Peak District (drawing: Courtney Nimura; basemap: Esri UK, Esri, HERE, Garmin, FAO, NOAA, USGS)

less evidence from Orkney, where incised elements predominate in passage graves. Pecked motifs are present at a few sites and employ similar techniques to the Irish monuments (Bradley *et al.* 2001; Thomas 2016).

Comparable images are associated with other structures. There are pecked designs on two stone settings built around 3000 BC: Long Meg in Cumbria where the motifs recall those in Ireland (Frodsham 2021); and possibly Temple Wood in the west of Scotland where the most conspicuous design is paralleled in Orkney tombs (Scott 1989).

Later developments (Chalcolithic to Early Bronze Age)

Discussions of insular rock art have been dominated by accounts of decorated cist slabs. They raise many difficulties – sometimes their association with graves is debateable (Shee Twohig 1972, 232–3) and their distribution is restricted (they are especially uncommon in Ireland). Nearly 50 years ago Simpson and Thawley (1972) argued that most of these stones were re-used. The pecked decoration was worn and sometimes truncated but this did not happen in every case (Beckensall & Frodsham 1998; Baker & Wright 2009). It did include motifs associated with megaliths or decorated outcrops but other panels were created specifically for inclusion in the grave. Thus, the practice of making rock art must have extended into the 2nd millennium BC.

This is shown by other structures. The decoration associated with Clava Cairns is fitted to the outlines of individual stones in the kerbs and one of the chambers (Fig. 3). Complex circular designs are absent and there is an emphasis on cup marks and cups with single rings. These monuments were used between about 2200 and 1800 BC (Bradley 2000). At other sites cup marks are associated with depictions of diagnostic metalwork. The decorated cists in Kilmartin Glen include drawings of axes and a halberd which occur together with an array of cups and a single ring (Watson & Bradley 2021). Cups also feature on the kerb of a round barrow in Wessex where they accompany carvings of axes and daggers (Piggott 1939).

Evidence from open-air sites

Like those at passage graves, individual designs were made and altered over significant periods of time.

There are differences of weathering between those made on the same surface and a few are superimposed or defaced (Valdez-Tullett 2019, 93–6). Motifs abut one another and some panels may have increased in size or elaboration. It is not known whether that process was continuous or discontinuous.

Three sites provide more direct evidence of sequence and, in this respect, they compare with the information from chambered tombs. At Hunterheugh in Northumberland excavation of a decorated outcrop identified two phases of decoration (Waddington 2005). The first group consisted of cup marks and cups enclosed by one or two rings. They were like the simple motifs behind the kerbstones at Newgrange. During a second period of activity at Hunterheugh large sections of the outcrop were removed and new designs were created on the freshly exposed surfaces. Now they were larger and more prominent and took a different form. One of the cups was enclosed by three concentric rings and other motifs were joined together. A new panel featured a wavy line or ‘serpentine’ with parallels in megalithic art (Eogan & Shee Twohig 2022, 115).

There may have been similar developments at Auchentorlie above the Clyde Estuary in western Scotland. Here there were at least two phases of stone working separated by an interval in which parts of the surface were removed (MacKie & Davis 1989). The sequence is difficult to work out as the interpretation was based on photographs taken before the outcrop was destroyed but, in one case, part of a panel of cup marks and cups with single rings was truncated and a pair of eight concentric circles took its place. Their size and execution seem to be shared between open sites and passage graves.

A third sequence was at Achnabreck at Kilmartin in western Scotland and was identified by differences of weathering between images on the same surface (Fig. 4; RCAHMS 1988, 87–98; Watson 2022). This approach cannot be taken too far but Aaron Watson’s recent work identified obvious contrasts between the condition of adjacent motifs, some of which were superimposed. The first phase featured three groups of linked spirals, as well as single and concentric circles; there were no cup marks. The distinctive horned spirals compare with those at monuments in Orkney and with the decorated flint macehead from Tomb 1B at Knowth in the Boyne Valley (Eogan & Cleary 2017, 440–2). A second phase at Achnabreck is represented by very different images: cup marks, cups surrounded



Fig. 3.

Two decorated panels in the Early Bronze Age cemetery at Clava. The upper picture shows the junction between the passage and central chamber of the SW cairn. The lower image shows a decorated kerbstone in the NE cairn. In each case the motifs have been fitted to the outline of the stone (photographs: Richard Bradley)



Fig. 4.

The decorated surface at Achnabreck, Kilmartin Glen (Western Scotland), where successive designs have been identified by differences of weathering and style (photograph: Aaron Watson)

by several concentric rings, cups and rings joined to radial lines, and a large enclosure. Again, there is a striking difference between the techniques used to make them. Watson compares the execution of the first designs with the earlier style of tomb decoration in Ireland. In the second phase at the Scottish site the motifs were bolder and in this respect they have more in common with later panels in Irish passage graves.

These comparisons cannot be taken too far but there is more direct dating evidence. Two decorated outcrops on the Ben Lawers estate in the southern Highlands of Scotland produced finds of Arran pitchstone which should date from the Early or Middle Neolithic period (Bradley *et al.* 2013). The same happened at Torbhlaren near Kilmartin on the west coast where concentrations of rock art are also associated with radiocarbon dates in the Late Neolithic and Chalcolithic periods: 2920–2860 cal BC and 2580–2340 BC (Jones *et al.* 2011, 57–8). Similarly,

there was a deposit containing Grooved Ware and flint artefacts beside panels of rock art on Rombalds Moor in the southern Pennines. In this case there are radiocarbon dates of 3090–2630 cal BC and 2960–2610 cal BC (Edwards & Bradley 1999). A few decorated outcrops in north-east England were overlain by circular cairns attributed to the Bronze Age. One of those sites is Hunterheugh (Waddington 2005).

THE STYLES OF INSULAR ROCK ART

There are three overlapping styles of rock art. Their relationship with one another provides another source of information.

Incised angular designs

These are a particular feature of Orkney passage graves (Bradley *et al.* 2001; Thomas 2016). It is not clear how they were used, and it seems possible that

they were cut through areas of pigment using a sgraffito technique (Bueno-Ramírez *et al.* 2019). The same motifs were employed in other buildings, including houses like those at Pool or Skara Brae and the specialised structures on the Ness of Brodgar (Thomas 2016). This distinctive style extends to Irish passage tombs where it represents one of the earliest elements, although some panels are embellished with a combination of incised and pecked motifs (Eogan 1997). Despite that connection, angular designs are usually employed on portable objects and connected with the domestic domain (Jones & Díaz-Guardamino 2019). Like Grooved Ware which shares similar elements, they probably originated in Orkney (Bayliss *et al.* 2017).

Pecked circular designs

These designs were common in the open landscape where angular motifs are very rare. Curvilinear designs are found in at least 14 regional concentrations across Britain and Ireland (Fig. 2) and extend from simple circular devices to sets of concentric rings that extend right across the decorated surface. They are often integrated with radial lines leading to (or from) the centre of the circle where there is a cup mark. In the most elaborate panels, like those in south-west Ireland, western Scotland, and Northumberland, these elements may be linked together to form complex panels. Many designs are conspicuous and, in certain cases, the images were renewed. Occasionally there are indications that part of the decorated surface was removed; Hunterheugh provides a well-documented example (Waddington 2005). The curvilinear style of rock art is rare on buildings or portable artefacts and is more common in the open landscape (Bradley 1997). In Ireland the main concentrations complement the distribution of passage graves (Loughcrew is an exception) and in Orkney, where there are similar monuments, there is little to suggest that natural exposures of bedrock were embellished.

Megalithic art

This represents a third tradition but it is different from the others because it could combine angular and curvilinear designs in the same panels (Robin 2009; Eogan & Shee Twohig 2022). Apart from some early motifs they were formed by pecking. Individual elements might be changed several times and some

were eventually erased (Eogan 1997; Cochrane 2006; Robin 2009; Eogan & Shee Twohig 2022). The curvilinear designs are best known in the Boyne Valley and are quite different from those in the open-air rock art of other regions. Cup marks occur less often, the rings are seldom breached by a radial line and spirals are represented as well as circular motifs. The same applies to a few panels associated with passage tombs in Orkney (Thomas 2020). Scottish and Irish monuments share some elements with places in the wider landscape, but they are rare (Freedman in Jones *et al.* 2011, 284–311). They include: simple or more elaborate spirals; C-shaped or ‘horned’ spirals; rosettes; unbroken concentric circles; stars; ‘boxed U motifs’; and ‘serpentine forms’ (Robin 2009; Eogan & Shee Twohig 2022). The best known examples are in Inishowen in the north of Ireland (O’Connor 2006, 118–19), at Ballochmyle (Stevenson 1993) and Ormaig near the west coast of Scotland (Jones *et al.* 2011, 204–10), Morwick in Northumberland (Beckensall 1991, 111–16), and Copt Howe in Cumbria (Bradley *et al.* 2019). They stand out from most of the other panels in the same regions.

In a sense, passage tomb art in Ireland provided a synthesis of the styles associated with the domestic domain and the landscape respectively (Fig. 5; Bradley 2009, 120–2). The comparison goes even further as there are panels of open-air rock art that combine the design elements associated with natural places in a similar manner to the decoration of Irish monuments. They include examples at Achabreck, Ballochmyle, and Morwick (Fig. 6).

Summary

These relationships shed further light on the age of insular rock art. If the decoration of Irish passage tombs drew on two sources of information – an angular tradition that originated in Orkney and curvilinear images with a wider distribution – at some stage all three styles would have co-existed, although their overall chronology is not clear. Radiocarbon dating suggests a period beginning in the late 4th millennium BC and continuing long afterwards. On the other hand, there is no evidence that they remained significant for the same lengths of time. As O’Connor argued in 2006, megalithic art and open-air art represent a continuum (cf. Johnston 1993; Erlander 2015), but the decoration of natural surfaces

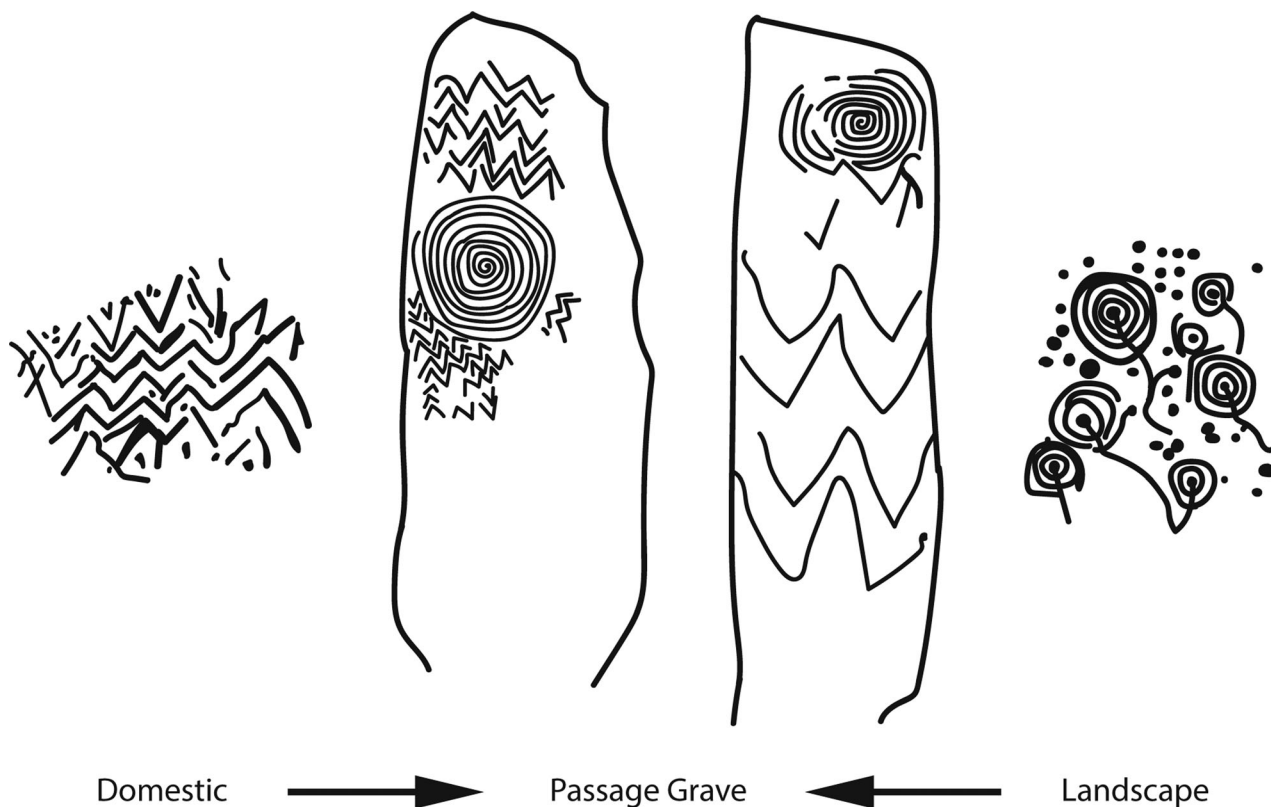


Fig. 5.

The styles of insular rock art. The left-hand image illustrates an angular design from the Late Neolithic settlement at Pool, Orkney, and the right-hand image shows part of a curvilinear design in the open landscape at Hunterheugh, Northumberland. Passage grave art is represented by two designs at Knowth which combine these elements. Adapted from Bradley (2009). Drawing: Courtney Nimura

retained its importance when chambered tombs were no longer built; Clava passage graves provide the obvious exception (Bradley 2000).

THE WIDER CONTEXTS OF INSULAR ROCK ART

The international scale

The international context of insular rock art is the subject of new research by Valdez-Tullett (2019). Instead of focusing exclusively on the pecked motifs, she combines her analysis of the images with an investigation of other features: the selection of particular surfaces for treatment; their positions in the local terrain; and the techniques by which the designs were made. She accepts the reality of a single tradition of rock art extending from Portugal to Ireland but recognises the existence of regional variations between her five study areas: Monte Faro (northern Portugal), Barbanza (north-west Spain),

Iveragh (south-west Ireland), Galloway (south-west Scotland), and Rombalds Moor (in the southern Pennines). Chronology remains a problem as Iberian scholars disagree on when Atlantic rock art originated. Although there are depictions of Early Bronze Age weapons in Spain and Portugal, they may not date from its first phase, and some researchers favour an earlier origin, basing their case on comparisons with the decoration of passage graves (Fábregas Valcarce 2009; Santos Estévez 2013). That is plausible since it is accepted that megalithic art shares elements between Iberia, Brittany, and Ireland. They were reviewed in a recent study (Eogan & Shee Twohig 2022, 227–57).

The regional scale

Valdez-Tullett's analysis suggests connections between northern Portugal and south-west Ireland. She also

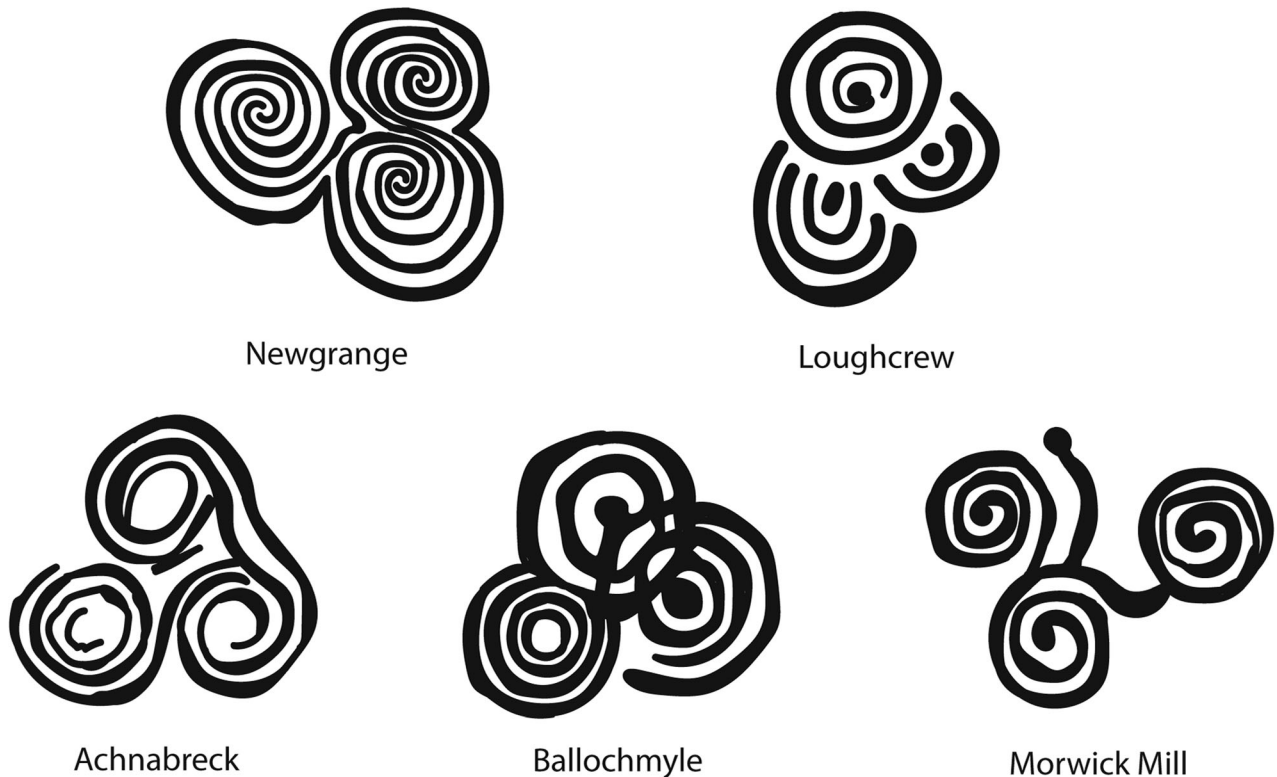


Fig. 6.

Conjoined circular motifs in the Irish passage graves of Newgrange and Loughcrew compared with images in the wider landscape at Achnabreck, Ballochmyle (Western Scotland) and Morwick (Northumberland) (drawing: Courtney Nimura)

identifies close links between the rock art of Iveragh and Rombalds Moor (in the southern Pennine group). Her findings complement accounts of long distance connections based on more familiar sources: the forms of chambered tombs, henge monuments, and stone circles. As Carlin recognised, the presence of Grooved Ware is important on both sides of the Irish Sea (Carlin 2017). But such studies suffer from inevitable limitations. They depend on the existence of specialised kinds of monuments and the survival of decorated pottery; other kinds of information play a limited role. The distribution of rock art extends into regions in which this evidence is lacking. Can it shed light on the relationship between places that have not been considered before? The presence of pecked designs depends on the availability of suitable bedrock and certain areas have little to show, but discoveries of objects with comparable decoration provide some indication of what might once have been present. Their distributions extend from the east coast of

Ireland to the Isle of Man. In Britain they are known as far north as Orkney and the Great Glen and as far south as Wessex and Cornwall. Decorated plaques were often buried in pits. They have been analysed by Jones and Díaz-Guardamino (2019) whose book *Making a Mark* identifies a series of connections between Ireland and Britain.

The local scale

In some ways most progress has been made by research on a local scale. Although decorated surfaces must have been lost as land was cleared, the distribution of open-air rock art retains some salient features and, occasionally, it can be investigated in lowland areas. Decorated outcrops on the valley floor near Kilmartin in western Scotland are in an area where there is evidence that crops were grown (Jones *et al.* 2011, 167). Similarly, in Strathtay in the southern Highlands, there are concentrations of

worked quartz on river terraces associated with cup marked stones; more complex decorated panels overlook these concentrations from higher ground (Bradley 1995). In upland areas their distribution focuses on springs and they can be found in areas with worked flints; Barningham Moor and Rombalds Moor are two examples in the Pennines (Beckensall & Laurie 1998; Deacon 2020). The rock art on Ben Lawers is associated with a series of shallow basins which are sheltered from the prevailing winds (Bradley *et al.* 2013); during the historical period they were used as seasonal grazing land and the remains of shielings have been identified there (Atkinson 2016). Pollen analysis shows that the local landscape had already been cleared when the prehistoric designs were made. Again, this area would have been suitable as summer pasture. Insular rock art might have been integrated into the pattern of settlement.

Discussion

In some ways these approaches are inconsistent with one another. Valdez-Tullett's study considers the relationship between areas that must have been connected by sea. That is emphasised by the term 'Atlantic' rock art (Valdez-Tullett 2019). But most regional studies have employed the methods of landscape archaeology, investigating the relationship between the decorated surfaces and other parts of the terrain: viewpoints, routeways, and valleys (Bradley 1997; Fairén Jiménez 2007). The sea plays little part in this research. It can be mentioned in passing – the visibility of the shoreline features in accounts of rock art in Galloway (Morris 1979; Bradley *et al.* 1993) – but there are two important exceptions. In south-west Ireland it has played a central role in research. In 2005 Westlake published a new study of the rock art of the Dingle peninsula and showed how its siting was related to the positions of estuaries as well as terrestrial resources. Similarly, the use of GIS has demonstrated that the main panels of rock art at Kilmartin in western Scotland had extended views out to sea (Jones *et al.* 2011, 227–36); this approach can be informative, but it can never be a substitute for dedicated fieldwork and must be supplemented by observations made at the sites themselves. It is interesting that work on comparable rock art in north-west Spain has undergone the same transformation. Again, it is apparent that it was related to

the inlets known as rías (Santos Estévez & Gümil Fariña 2015).

RELATIONSHIPS

The pecked circular designs found in the open landscape are especially informative. They are considered here.

Relationships with estuaries, bays, and landing places

Westlake's analysis of the Dingle peninsula emphasised the importance of estuaries (Westlake 2005). It applies to other complexes in south-west Ireland and to Inishowen in the north, which included important concentrations of petroglyphs (O'Connor 2006, 112–13; Busher O'Sullivan 2020). The same approach extends to a series of Scottish sites, especially those in Galloway where the distribution of rock art focuses on a series of estuaries and bays (Van Hoek 1995). This example is especially persuasive as the region contains an unusual proportion of images like those at Irish monuments. Visits to these sites in 2020 showed that most of them were near to places where it would be safe to land small boats; the relationship is not affected by subsequent changes of sea level. On the other hand, the wider distributions of artefacts and monuments in the same area include sections of the coast with cliffs and rocky shorelines.

Other groups of decorated rocks illustrate the point. Those in Kilmartin Glen were accessible by sea. Again, they were near sheltered landing places, and the repertoire of pecked designs shares features with distant monuments (Fig. 7; Jones *et al.* 2011, 314–17). In this case there were connections with both Orkney and Ireland. The same approach might explain the concentration of decorated outcrops on Clydebank which are harder to investigate because evidence has been lost to modern development. This is another part of western Scotland with occasional motifs like those in megalithic art (Morris 1981). There is similar information from two other regions. In England, the decorated panels at Fylingdales on the North York Moors are not far from a potential landing place in Robin Hood's Bay (Vyner 2011; Brown & Chappell 2012). In Ireland, Dundalk Bay provided access to the concentration of decorated surfaces investigated by O'Connor (2006) in Counties Monaghan and Louth. It is known that cobbles collected on beaches in this



Fig. 7.
A decorated surface at Ormaig (Western Scotland) overlooking the sea and a potential landing place
(photograph: Aaron Watson)

area were taken to passage tombs in the Boyne Valley (Mitchell 1992).

Relationships with rivers, valleys, and the shoreline

Other concentrations of rock art are further inland but could have been accessed from the coast (Bradley 2022a). Three sites are particularly relevant here. In two instances – Ballochmyle and Copt Howe – they were about 20 km (a day's travel) from the shores of western Scotland and Cumbria respectively. Ballochmyle could be reached by following the River Ayr and Copt Howe along the valleys or lakes leading north from Morecambe Bay. The decorated cliff at Morwick overlooked the Coquet a shorter distance upriver from the North Sea (Beckensall 1991 111–16). All three places were readily accessible. They had other characteristics in common. The rock art of Copt Howe resembles the decoration of passage graves in

Ireland and the panels at Ballochmyle share certain elements with the megalithic art of Loughcrew, especially the presence of concentric circles and stars. On the other hand, the panels at Morwick feature linked spirals like those in Orkney. In every case the decoration is confined to vertical surfaces that resemble the walls of tombs (Bradley 2022a). There are less dramatic concentrations of rock art along other rivers. They include the Eden in Cumbria, which runs inland from the Solway Firth (Sharpe 2022), and the Till, Breamish, and Coquet, which lead to concentrations of petroglyphs in Northumberland (Beckensall 1991).

Relationships with land routes

There are important groups of rock art even further from the sea. Some of the sites are scattered but many illustrate a wider pattern. It is no accident that their

distributions emphasise three long distance paths linking the North Sea and the Irish Sea. In England, petroglyphs are well represented in valleys east of the Pennines (Beckensall & Laurie 1998; Boughey & Vickerman 2003; Brown & Brown 2008) and, in some cases, they followed (or more often overlooked) two of these trails. That would account for the exceptional number of sites around Rombalds Moor (Cowling 1946; Boughey & Vickerman 2003) and for similar groups near Barnard Castle (Beckensall & Laurie 1998; Brown & Brown 2008). Both cross country routes featured in *The Personality of Britain*, where one of Fox's maps showed how they could have connected important places on the coast (Fox 1932, map B). There is similar evidence from the southern Highlands of Scotland where the concentrations of decorated surface images in Strathtay and further west below Ben Lawers follow part of a route leading between opposite sides of the country (Stewart 1958; RCAHMS 2005).

Relationships with megalithic art

The distribution of pecked spirals is particularly informative as they were a prominent feature of megalithic tombs, although they should not be treated in isolation. It was studied by Van Hoek 30 years ago (Van Hoek 1993). There have been new discoveries but the basic picture has not changed (Frodsham 1996; Brown & Brown 2008, 128–31; Freedman in Jones *et al.* 2011, 284–311). The main concentrations are near the Scottish coast with others in Northumberland. There are possible examples in north Wales and more are distributed around the shores of Ireland (apart from those in the south-west they rarely face the Atlantic). Few are far inland. The motifs themselves take two forms. One group resembles those associated with Irish passage graves but the other compares with designs in monuments of the same kind in Orkney. In each case their relationship with the sea must have been significant.

Spirals are not the only distinctive designs and there are more panels that combine features of passage grave art with the normal repertoire of open-air petroglyphs (Freedman in Jones *et al.* 2011, 284–311). Taken together, their distributions identify two networks. One extended along the Irish Sea and is evidenced by specialised motifs shared with chambered tombs on both sides of the water. The other followed the North Sea and was connected to Orkney. Motifs associated with Orcadian monuments can be

found on the west coast as far south as Anglesey and down the east coast to the North York Moors. These axes were connected by overland routes associated with concentrations of rock art. How should these relationships be understood? By making specialised designs, local communities might have acknowledged a shared system of belief. Otherwise, travellers could have displayed their wider connections, employing unusual motifs associated with monuments in distant areas. There are useful analogies with the Bronze Age rock art of south Scandinavia. Some of the drawings of boats that cluster along the seashore are associated with depictions of artefacts found in other parts of Europe (Ling & Uhnér 2014).

ROCK ART AND MONUMENT COMPLEXES

The siting of major monuments illustrates similar patterns although this does not apply to every case. Again, many of them were linked to rivers leading from the coast or were distributed along routes leading across country. At times they developed where those paths converged. Examples include those in Kilmartin Glen, the Vale of Mowbray, and the Milfield Basin. A few structures include panels of pecked decoration but it was more common to embellish natural surfaces in the vicinity. In some cases, their distributions focus on the places where henges or stone circles were built and in at least two regions – Northumberland, and Argyll – the most complex designs are located closer to those structures than other petroglyphs in the same region (Bradley 1997, 113–26). This raises a chronological problem that was not appreciated when the pattern was first identified. The decorated surfaces may have been created and changed over long periods of time. That makes it difficult to associate them directly with the positions of major monuments. In 1997 it was acceptable to date most henges to the Late Neolithic period but more recent fieldwork shows that some were built during the Chalcolithic phase or even the Early Bronze Age (Gibson 2010; Bradley 2011). Is there any way of resolving the problem? Monument complexes may have developed around places whose importance was already signified by concentrations of rock art. Alternatively, these structures may have been built *when the motifs were made – or even afterwards*. There was considerable variation and there are clusters of rock art sites which lack equivalent groups of early henges and stone circles. They include decorated surfaces in south-west Ireland where most

monuments were of later date (O'Sullivan & Sheehan 1996; O'Brien 2012). On the other hand, such structures were built in the Peak District but the region contains surprisingly few petroglyphs, although they have been looked for and the local bedrock would preserve pecked motifs (Barnatt & Reeder 1982).

What many Late Neolithic monuments share is their positioning around long distance routes. This has always been recognised but more attention could be paid to their relationship with the sea. Like groups of decorated outcrops, some were not far from the coast. This relationship is most apparent on the west coast of Scotland where it is illustrated by the stone circles on Machrie Moor, at Kilmartin, and at Calanais (Bradley 2022b). On the east coast of Ireland it extends to two important complexes: the Neolithic structures of the Boyne Valley and those at Ballynahatty. Newgrange, Knowth and a series of newly identified henges are located 12 km upriver (Davis & Rassmann 2021). In the same way Ballynahatty is only 8 km from the sheltered inlet of Belfast Lough (Hartwell 1998; Hartwell *et al.* 2023). In this respect the siting of monuments shares a feature in common with the distribution of open-air rock art.

ASSOCIATED ACTIVITIES

Activities on the open-air sites

Were monuments used in the same ways as concentrations of petroglyphs or was there a clear distinction between them? This section discusses the information from open-air sites, followed by an account of elements they shared with decorated tombs.

One feature which has been recognised at sites with rock art is the special importance of quartz. It was used to make artefacts, including hammers for working the stone, but it was also represented by broken fragments which were never used (Bradley & Watson 2019). People could have exploited the special properties of this material – it emits sparks when it is broken and glows when pieces are rubbed together (Whitley *et al.* 1999). It helped to give these places the animated quality emphasised by Jones and his colleagues in their study of Kilmartin. There were concentrations of pieces of quartz around decorated surfaces at Torbhlaire in western Scotland (Jones *et al.* 2011) and at Urlar in the southern Highlands (Bradley & Watson 2019). Similar deposits have been found by excavation beside the rock art on other sites

in Scotland: Allt Coire Phadairlidh on the Ben Lawers estate (Bradley *et al.* 2013) and Upper Gaskan in the same region (Ballin 2019). Unmodified quartz pebbles were also discovered at Hunterheugh in Northumberland but were interpreted as natural deposits (Waddington 2005). At Urlar some of the quartz flakes had complex histories. They were quarried from veins exposed in the surface of the outcrop and returned to the ground without any indications of use (Bradley & Watson 2019). A similar procedure was followed at Copt Howe in Cumbria but here it involved fragments of tuff. They were removed by flaking one face of a prominent boulder and set vertically within a rubble platform beneath a decorated panel (Bradley *et al.* 2019).

Excavated features around the decorated rocks

In Scotland excavation has focused on the areas around the decorated surfaces. At Ormaig, in the Kilmartin complex, there were few artefacts and structures were entirely absent (Jones *et al.* 2011, 204–19), but that did not apply to two outcrops associated with simpler motifs on the nearby site of Torbhlaire; similar deposits and features were identified beside the petroglyphs at Allt Coire Phadairlidh in the southern Highlands (Bradley *et al.* 2013). The clearest evidence comes from Tiger Rock at Torbhlaire. Here there was a small timber structure: a roughly circular setting of stakes or small posts with a diameter of 1.5 m, associated with a radiocarbon date of 2580–2340 cal BC (Jones *et al.* 2011, 52–6). Jones and his co-authors suggest that it was replaced by a clay platform bounded by a stone wall but this claim is more controversial. The wall itself is undated and a study based on soil micromorphology did not support the excavators' interpretation. On the other hand, it identified a trampled surface at the base of the outcrop where there were quantities of worked and broken quartz. The evidence from Allt Coire Phadairlidh on the Ben Lawers estate is rather similar. Again, there were concentrations of quartz around a series of decorated outcrops and, in one case, an area of boggy ground beside a complex petroglyph was consolidated by a layer of cobbles. This cannot be described as a platform but it was in the best position for people to view the pecked design (Bradley *et al.* 2013).

The excavated evidence from England is even more limited, but at Backstone Beck on Rombalds Moor

four decorated surfaces were identified during the fieldwork on a later prehistoric enclosure; their presence on the same site seems to have been coincidental (Edwards & Bradley 1999). The pecked designs were very simple and, in two cases, areas of burning, possibly the sites of hearths, were found beside them. Both were associated with notable concentrations of artefacts. In one instance pottery was still preserved. Apart from a sherd of Beaker, it consisted of Durrington Walls style Grooved Ware (Manby 1999, 73). Both areas contained remarkable collections of worked flint, much of which was introduced from the North Sea coast 90 km away. It included oblique arrowheads, Levallois cores, and fragments of polished knives. The composition of these groups recalls the contents of Late Neolithic features on the Yorkshire Wolds, some of which include the remains of feasts (Manby 1974; Rowley-Conwy & Owen 2011).

Deposits within the decorated rock

The parts of the stone selected for carving are equally significant. Artefacts were inserted in natural features *on top of* the decorated outcrops. This must have been intentional as fieldwork at Kilmartin in western Scotland showed that the people who created the petroglyphs were reluctant to work smooth surfaces and preferred those with basins, cracks, and fissures (Jones *et al.* 2011, 18–32). The artefacts deposited inside these features included tools that could have been used to make the pecked designs. That also happened at Urlar in Strath Tay (Bradley & Watson 2019). The platform at Copt Howe in Cumberland contained a cache of artefacts of this kind (Bradley *et al.* 2019). Perhaps the quarrying of decorated panels at sites like Hunterheugh and Auchentorlie followed similar principles. Although it refreshed the decorated surfaces, it suggests a particular concern with the *interior* of the stone.

The same idea could account for the distinctive character of open-air rock art where the commonest elements include a circular design with a radial line extending to its centre. It could represent a tunnel leading into the rock itself. In that case its outer surface was only a membrane through which it was possible to pass. There are obvious dangers in comparing insular motifs with those in other parts of the world but two features do seem to be especially common. One is the idea that people or other beings can travel between the

outer world and the interior of the stone. This idea is well documented in regions as far apart as Finland (Lahelma 2008) and southern Africa (Lewis-Williams & Dowson 1990). At the same time openings in the decorated surface can be associated with deposits with special properties. An account of Californian rock art describes how pieces of quartz were placed in fissures and cracks like those associated with rock art in Scotland (Whitley *et al.* 1999).

If the interior of the stone was important, so was the space above it. Quartz reflects sunlight and moonlight in a way that few materials can and the siting of rock art in the landscape echoes this concern. There was a preference for horizontal surfaces that faced the sky and a few decorated outcrops were directed towards the rising or setting sun. In most regions there were views towards the solar arc rather than the north (Barnett *et al.* 2022a; 2022b). The importance of the sun is most obvious at Copt Howe and Ballochmyle where long distance visibility is limited by a vertical surface and the panels themselves are orientated on the midsummer and midwinter sunsets respectively (Bradley 2022a). In the same way at Allt Coire Phadairlidh in the southern Highlands a decorated outcrop commands a direct view of the east end of Loch Tay (Fig. 8). It is where the midsummer sun rises (Scott & McHardy 2020, 122). Similarly, the rock art at Achabreck on the west coast of Scotland was ideally located for watching the passage of the winter sun over the island of Arran 45 km away (Watson 2022). At a more general level, sites were selected that faced south-east or north-west: the directions of the rising or setting sun at the turning points of the year (Barnett *et al.* 2022a; 2022b). Those directions seem to have influenced the placing of rock art above Loch Tay on Ben Lawers, and in Kilmartin Glen (Bradley *et al.* 2013; Watson 2022).

Activities shared with chambered tombs

The repertoire of pecked motifs is not the only connection between open-air rock art and passage graves. There was a subtle interplay between features that were concealed from view and those with a more public character. That applies to three distinct elements: the architecture of the monuments; the placing of megalithic art; and the deployment of quartz. The tombs themselves could admit few people but, during subsequent phases, additional structures were erected beyond the limits of the mounds or



Fig. 8.

Allt Coire Phadairlidh in the Southern Highlands of Scotland where a decorated outcrop commands a direct view of the east end of Loch Tay (photograph: Aaron Watson)

cairns. They included earthworks, monoliths, and post circles. There were also arrangements of small stones similar in size and outline to the timber setting at Torbhlaren (Eogan & Cleary 2017, 216–46). The structural sequence at Knowth is particularly informative as the decorated kerb was among the last components to be built there. It was a massive undertaking and featured a series of conspicuous curvilinear designs which have more in common with open-air rock art than the other motifs on that site (Eogan & Shee Twohig 2022). There are even more connections between these media. Although some scholars question O’Kelly’s reconstruction of the façade of Newgrange (Cooney 2006), there is no doubt that there were significant deposits of quartz outside the passage graves at Knockroe, Knowth, and Loughcrew (Hensey & Shee Twohig 2017). In the Boyne Valley it featured in some of the stone settings around the principal structures (O’Kelly 1982, 75–8; Eogan & Cleary 2017, 216–46).

Robin (2009) considers that the larger monuments had a distinctive layout (cf. Jackson 1995). They were organised as a series of concentric rings, only the latest of which was visible in the exterior of the monument.

There was a chamber towards the centre, accessed by a long straight passage (Fig. 9). He interprets the rear of that chamber as the portal to another world where participants in ceremonies might seem to pass through the stone. The whole structure resembles one of the commonest designs in Neolithic rock art. But there is a most important distinction – nearly all the circular motifs associated with passage tombs lack the radial line found on open-air sites. There may be an explanation for this contrast. Where the design was executed in three dimensions and an actual passage was provided, rock art seldom referred to these features. On natural outcrops, however, passages leading into the stone were evoked by a schematic outline.

In this way Irish tombs enshrined the same ideas as the panels of pecked decoration and both illustrate a concern with what was hidden underground. They also acknowledged the importance of the sky. This evidence is much better known. Nearly a fifth of the well-preserved passage tombs in Ireland were orientated towards the rising or setting sun at the solstices (Prendergast 2020). The same applies to examples in Orkney (Downes 2020) and Anglesey (Burrow

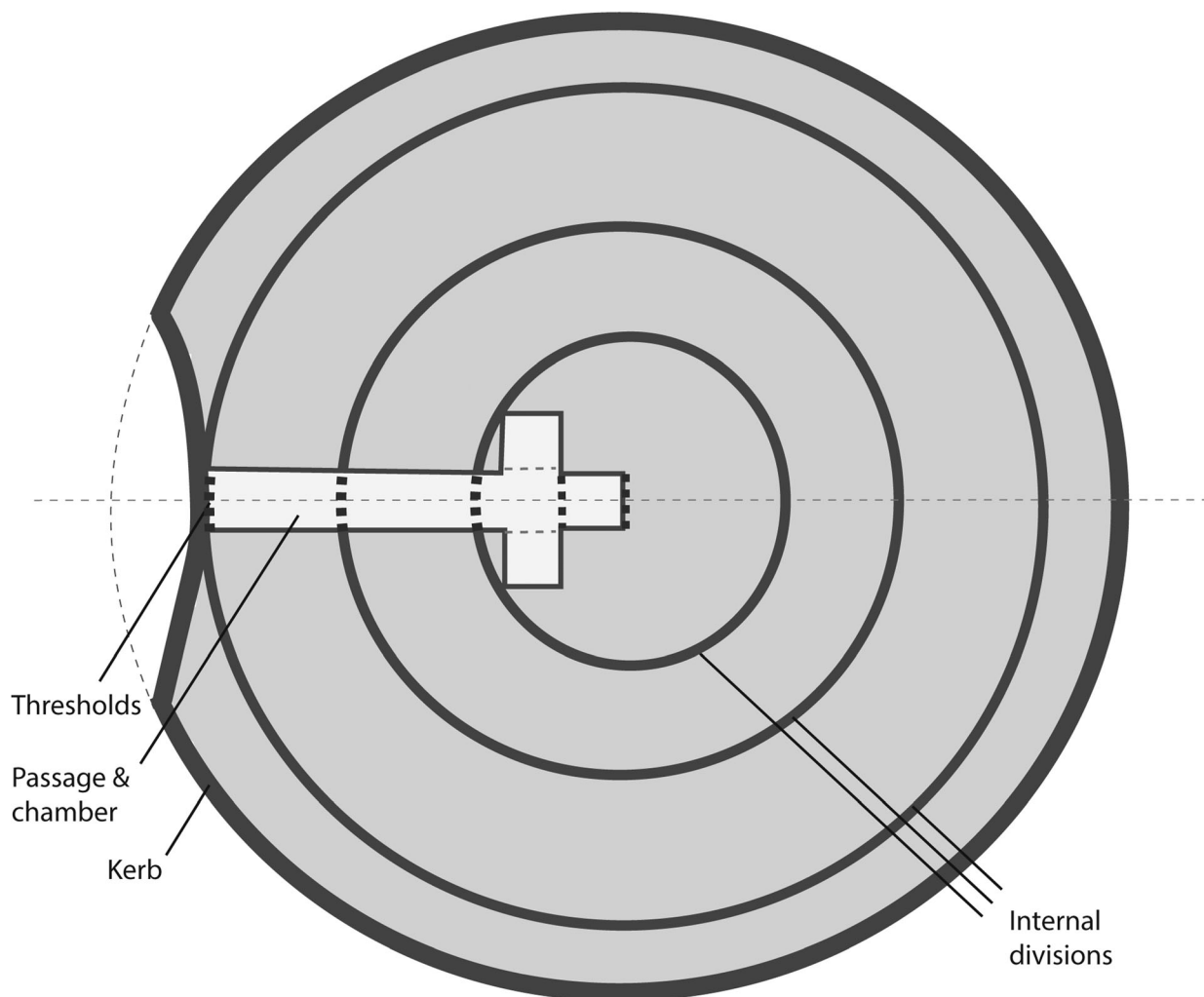


Fig. 9.

The basic components of Irish and Orcadian passage graves in the scheme devised by Robin (2009) (drawing: Courtney Nimura)

2010). Because they were solid constructions the evidence is much clearer than it was with open-air rock art but the concerns it illustrates seem to be the same. Certain directions were significant; indeed, the excavated tomb of Knockroe was directed towards *both* the midwinter sunrise and the midsummer sunset (O' Sullivan 1993; Prendergast 2020). These ideas are consistent with an interpretation suggested by Lewis-Williams and Pearce (2005) in their book *Inside the Neolithic Mind*. Perhaps these features referred to the widely shared idea that the cosmos

comprised three layers: an upper world associated with the sun, the moon, and the sky; the familiar world of human affairs; and an underworld connected with the dead and the supernatural. It was represented in solid form by the structure of the passage tomb and in outline by open-air rock art. Both expressed the same concepts and chambered tombs and decorated outcrops might have been where people could communicate between the different spheres. Such practices continued after chambered tombs went out of fashion.

ROCK ART AS A CONTINUUM

In an article published in 2010 Thomas characterised the connections between regions of Britain and Ireland in terms of ‘imagined communities’. He was concerned with interpretations of Grooved Ware. This tradition of decorated pottery illustrates some of the problems confronting accounts of long distance relations during the Late Neolithic period. The motifs displayed on these vessels were widely shared, yet many of the pots were fragile and locally made. There is an obvious contrast with the interchange of stone axes that had characterised an earlier phase. The movement of special objects may have been less significant but similar designs were executed in very different contexts: inside chambered tombs; on a variety of portable artefacts; and on natural rock formations. How were they connected?

It is obvious that some of the motifs had special connotations, even though they are difficult to interpret. They were shared between several media and, on certain sites, they were related to the movements of the sun, access to the dead, and possibly an underworld. Whatever their precise connotations, they seem to have evoked a system of belief that was acknowledged in various settings. Rock art was only one of them but its potential significance is often overlooked. It celebrated the connections between people who lived in distant areas. That is accepted in the case of decorated ceramics and Thomas referred to ‘*the constructed, and potentially even fictive, character of the identities associated with Grooved Ware*’ (Thomas 2010, 12; my emphasis).

It seems as if megalithic art and open-air rock art formed a continuum that extended from the most specialised monuments to the domestic domain and from places which were occupied all year to those visited only occasionally. The activities that took place there were equally diverse. Because of the link between motifs in the landscape and those in passage graves it has been tempting to interpret all the designs in the same terms but it is unwise to do so. Prehistoric communities might not have observed clear-cut divisions between rituals and the routines followed in daily life. On the other hand, there were differences of scale and certain activities may have been conducted with greater formality than others (Bradley 2005). Rock art illustrates the point. Sometimes it was associated with impressive monuments but it extended to the marking of other significant places, from houses and settlements to paths and areas of farmland. It drew on a lexicon

which was both specialised and flexible and its visual vocabulary was generally suited to the context.

A good analogy is provided by Christian imagery in the Iberian Peninsula where a single powerful image – the cross – is shared between many different settings. On one level it is associated with churches, monasteries, and shrines. It is also a feature of raised granaries, some of which assume monumental proportions. The same motif extends into the wider landscape where it features as pecked designs. During the medieval period some of these images were intended to Christianise places with pagan associations but others simply marked land boundaries and that practice continues to the present day (Alves 2001). It is revealing that, not long ago, some of these motifs were mistaken for prehistoric petroglyphs (Anati 1968).

TRAVELS AND LONG-DISTANCE CONNECTIONS

The distribution of rock art in Britain and Ireland sheds some light on the ways in which a distinctive visual culture came to be shared. Although there are numerous exceptions, the placing of decorated panels shows an emphasis on estuaries, rivers, and sheltered landing places. It also clusters around overland routes leading between the North Sea and the Irish Sea (Fig. 10). People travelled long distances. They might have included pilgrims, as Renfrew suggested in 1985; in an article published 16 years later Scarre preferred the ‘more neutral concept’ of sacred journeys (Scarre 2001, 9). Monuments drew people together to participate in assemblies and feasts and certain of these places were associated with petroglyphs. Open-air rock art features the same designs in both islands but the rare motifs shared with passage tombs indicate two main networks. One linked Ireland with western Britain. Orkney had similar connections, as well as others extending down the east coast. They might have facilitated alliances between communities living in distant areas.

New work provides scientific evidence that people were indeed travelling long distances during the Late Neolithic period. The results depend on the availability of suitable samples for analysis but studies of faunal remains associated with Late Neolithic henges show that animals were brought there from distant regions (Viner *et al.* 2010; Madgwick *et al.* 2019; Evans *et al.* 2022). There is disagreement about the extent of these contacts (Barclay & Brophy 2021;

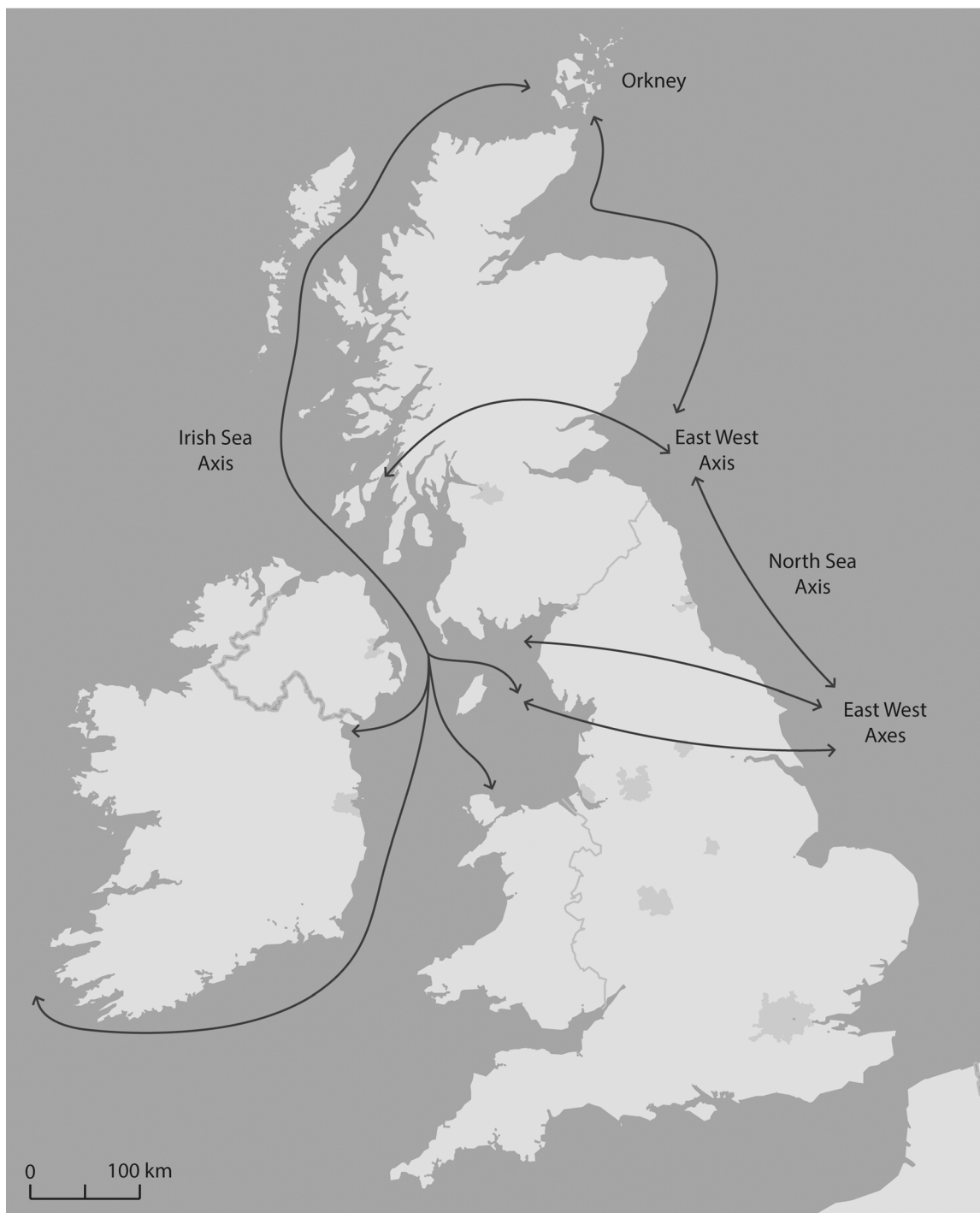


Fig. 10.

Major connections within Later Neolithic Britain and Ireland suggested by the character and distribution of rock art. They would have extended into lowland Britain where petroglyphs are rare (drawing: Courtney Nimura; base map: Esri UK, Esri, HERE, Garmin, FAO, NOAA, USGS)

Madgwick *et al.* 2021) but they help to account for the striking similarities that developed between different regions of Britain. In Ireland the evidence is even more dramatic. Analysis of ancient DNA preserved in unburnt human bones from passage graves has shown that the people whose remains were deposited there were distant relatives of one another (Cassidy *et al.* 2020). The tombs that provided the samples were long distances apart, but Moore (2016) has argued that the four main cemeteries were connected by the river network. This article has suggested that other long distance links can be recognised by studying visual images. They lack the precision offered by laboratory science or the sourcing of artefacts but that is no reason why they should be omitted from accounts of insular prehistory.

CONCLUSION

The relationships suggested here are consistent with the results of an analysis which was based on information of better quality (Bradley 2019, 96–124). Rock art research is too often treated as a specialised field, both by its practitioners and by the scholarly community. That raises a problem in regions of the world where the images are particularly arcane. There are merits in taking a cautious approach to this material but there is also a danger of becoming too pessimistic. The possibilities raised by the strange designs in Britain and Ireland are directly related to topical themes in Neolithic and later archaeology.

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RÉSUMÉ

Les connections de longue distance en Grande Bretagne et en Irlande : l'apport de l'art rupestre insulaire, par Richard Bradley

Les études des contacts entre la Grande Bretagne et l'Irlande se font le plus souvent à partir de monuments et de mobilier tel que les céramiques Grooved Ware et campaniformes, ou les objets en métal. De nouvelles recherches sur l'art rupestre insulaire indiquent que ses origines se situent au Néolithique Moyen-Récent, et que son usage se poursuit, parfois sous la forme de réemplois, jusqu'à l'âge du Bronze ancien. Cet article examine ses relations avec les tombes à couloir décorées et d'autres structures. Il avance que la distribution de l'art rupestre apporte un nouvel éclairage sur les relations entre ces îles. Les estuaires, les baies et les lieux d'accostage ont sans doute joué un rôle important, mais l'emplacement des motifs piquetés indiquent la présence d'autres connections le long de trois voies terrestres entre la mer du Nord et la mer d'Irlande. Certaines pratiques étaient communes aux tombes mégalithiques et à des sites d'art rupestre récemment fouillés. Il est possible qu'ils aient exprimé des croyances similaires en un temps où les voyages de longue distance furent importants.

ZUSAMMENFASSUNG

Fernverbindungen innerhalb Großbritanniens und Irlands: die Hinweise aus der Feldbildkunst, von Richard Bradley

Die Diskussionen über die Kontakte zwischen Großbritannien und Irland konzentrieren sich in der Regel auf Monumente und tragbare Artefakte wie Grooved Ware, Becher und Metallarbeiten. Neue Forschungen zur insularen Felskunst deuten darauf hin, dass sie ihren Ursprung im mittleren bis späten Neolithikum hat und bis in die Frühbronzezeit hinein genutzt und wiederverwendet wurde. In diesem Beitrag wird ihre Beziehung zu verzierten Ganggräbern und anderen Strukturen untersucht. Es wird argumentiert, dass die Verbreitung der Felsbildkunst ein weiteres Licht auf die Beziehungen zwischen diesen Inseln wirft. Mündungen, Buchten und Anlandungsstellen waren wichtig, aber die Lage der gepickten Motive deutet auf weitere Verbindungen entlang dreier Überlandrouten zwischen der Nordsee und der Irischen See hin. Bestimmte Praktiken finden sich bei Megalithgräbern und bei kürzlich ausgegrabenen Felszeichnungen. Es ist möglich, dass sie zu einer Zeit, als Fernreisen wichtig waren, ähnliche Überzeugungen zum Ausdruck brachten.

RESUMEN

Conexiones a larga distancia en Inglaterra e Irlanda: la evidencia del arte rupestre insular, por Richard Bradley

Las discusiones sobre los contactos entre Inglaterra e Irlanda generalmente se han centrado en los monumentos y en los artefactos móviles como el Grooved ware, los campaniformes y los objetos de metal. Nuevas investigaciones centradas en el arte rupestre insular sugieren que estos contactos se originaron en el Neolítico medio y final y continuaron siendo utilizados y reutilizados hasta la Edad del Bronce inicial. Este artículo considera las relaciones entre las tumbas decoradas de corredor y otras estructuras. Sostiene que la distribución del arte rupestre arroja una nueva visión sobre las relaciones entre estas islas. Los estuarios, las bahías y las zonas de desembarco fueron lugares importantes, pero la localización de los motivos piqueteados indica otras conexiones a lo largo de tres rutas terrestres entre el mar del Norte y el mar de Irlanda. Ciertas prácticas fueron compartidas entre las tumbas megalíticas y los recientemente excavados lugares con arte. Es posible que expresasen creencias similares al tiempo que fueron importantes los movimientos a larga distancia.