

CONNECTING THE DOTS: CUPULES AND COMMUNICATION IN THE ENGLISH LAKE DISTRICT

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A new corpus of rock art has recently emerged in the northwest of England. Targeted surveys and chance discoveries have revealed around 35 decorated panels on the hard, igneous rocks of the Lake District in the county of Cumbria (Beckensall, 2002; Brown; Brown; Sharpe, 2012; Style, 2011). All of the panels lie within a region defined as the Cumbria High Fells (Natural England, 2010). During the British Neolithic period these crags were also the focus of another reductive use of stone: the production of axe-heads. Outcropping around the mountain summits is a ribbon of fine-grained andesitic tuff, a distinctive raw material which drew the attention of prehistoric stone-workers. This paper suggests a possible relationship between the carved panels and the movement of prehistoric people around this challenging landscape in pursuit of the precious stone at its heart.

The panels

This new group of open-air panels is set in a dramatic, glacially-shaped, volcanic landscape. The majority are decorated with simple cupules ranging from small clusters of fewer than five, to scatters of more than

a hundred (figure 1). Cup diameters range from 2 cm to 10 cm, most being 3–5 cm. Linear grooves appear only on a few panels, although several appear to incorporate or respect natural fissures; rings are found on only two panels. The cupules are frequently added to the ice-smoothed uppermost surface of large outcrops, particularly the wedge-shaped forms known as *roche moutonnée* or those with a domed, whaleback profile. Most panels are located either on or just above the valley floor (50% are below 200 m OD). With the exception of two panels in Great Langdale (to which I will return), they are situated close to one of the long finger-lakes that occupy the deep, ice-scoured valleys that radiate from the central mountains (23 are within 1 km; 7 are within 500 m of the lake shore).

Although widely dispersed across a large area (c. 30 km x 20 km) and in valleys divided by mountainous terrain, the panels reflect similar choices made by the people who created them; these low-lying outcrops with their simple scatters of cupules are distinct from rock art in neighbouring regions. Immediately to the east, along the valley of the river Eden, a different form of rock art dominates. Here, more complex multi-ringed motifs, spirals and chevrons are found on boulders in monumental (including burial) contexts, with a high proportion of fragments and portable pieces. These examples are likely to be related to ritual activities focused on the confluence of the rivers Eden and Eamont, and represent a complex palimpsest with some carved stones potentially re-deployed several times, and others having later monuments



Fig. 1. Typical glacially-smoothed outcrops with cup-mark scatters. Right: Rydal (image by P. Style); left: Barber's Rock, Loweswater with view over Crummock Water towards Central Fells and stone quarries.

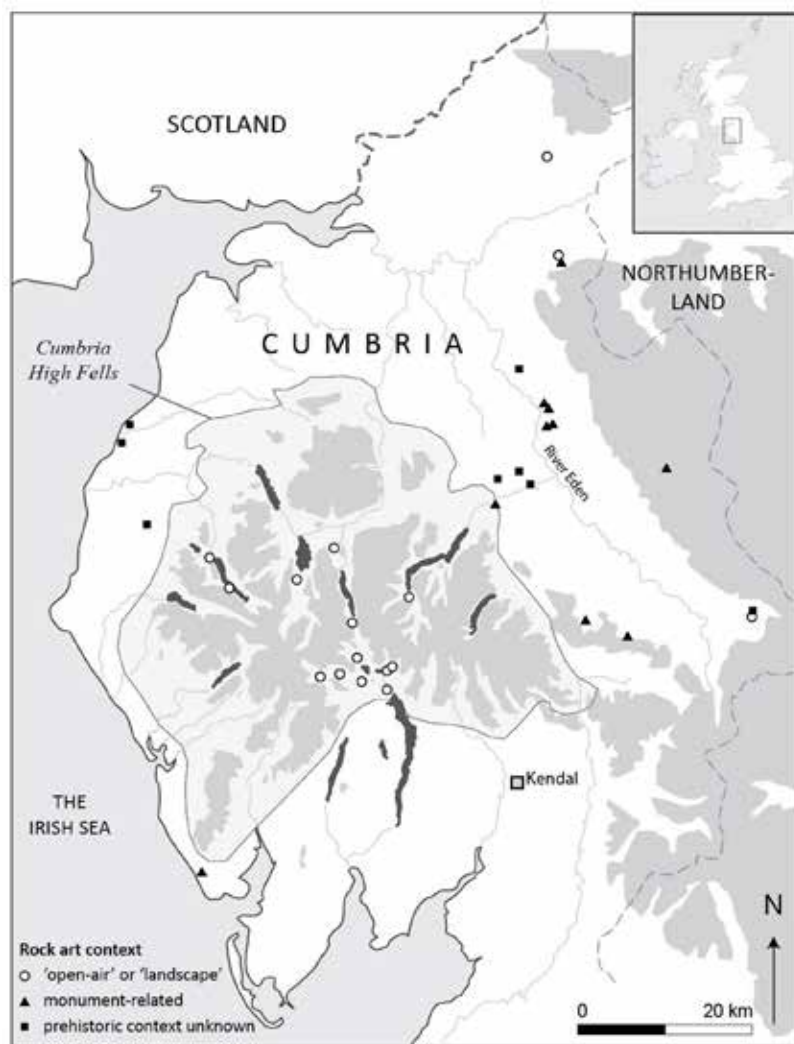


Fig. 2. Map showing the discrete distribution of rock art landscape and monumental rock art, and its relation to stone quarries, stone axe heads, early monuments, and probable concentrations of settlement in the Neolithic period. (After Style, 2009: 42). Shading indicates land above 250 m OD.

built around them. By contrast, there are few finds or features close to the Lakeland outcrops, and little positive evidence for an association with either ritual or domestic activity of any period. Indeed, the absence of monumental art in the central fells, and the corresponding lack of cup-marked outcrops in the Eden valley, suggests that in these neighbouring (but geologically and topographically distinct areas) the rock art was deployed for very different purposes.

Rock art in the landscape

Rock art in open, landscape contexts has been associated with the establishment and continued negotiation of relationships between people and the landscapes they inhabited. The permanent creation of places and the marking of paths between them

was an important process in the transition from a mobile to a sedentary way of life. Embellished surfaces, particularly on distinctive outcrops or immovable boulders, would have become fixed and familiar points within these networks, providing enhanced natural landmarks, commemorating significant sites, or fixing events both within the landscape and within the shared memory of the community. Might the cup-marked outcrops of the Lake District have had a similar role, marking significant places and reflecting enduring relationships between the landscape and the people who travelled around it?

The distinctive and visibly prominent forms of the favoured outcrops make the Lake District cup-marked outcrops clearly discernible, even in the valley bottom. Many of the panels offer extended views along their valleys, both in towards the craggy mountain peaks and out towards the lower fells and more gentle landscapes around the periphery. The long stretches of open water of the lakes provide extended sight lines with the high mountain profiles clearly visible above the trees, aiding navigation to and from the central fells. But why were people moving around the Lake District in the prehistoric period?

Seasonal movement

Evidence from monuments and material culture, particularly stone axe-head distribution (Style, 2009), indicates that Neolithic settlers favoured the west Cumbria coastal plain, the Eden valley and the Solway estuary (figure 2), a pattern supported by indications of forest clearance and crop cultivation. There is little evidence of a permanent human presence in the Cumbrian high fells. The valley floors and lake margins remained largely forested, although intermittent firing of vegetation suggests seasonal grazing of higher pastures (Pearsall; Pennington, 1973). It is likely that transhumance was practised between the lowlands and highlands with domesticated cattle and/or wild deer herded, or wild animal movements followed as they broke trails through the vegetation. Bradley and

Edmonds (1993) suggest that such forays may have led to the discovery of the highly regarded stone sources in the central mountains.

The exploitation of Group VI stone for the manufacture of stone axe-heads began in the Early Neolithic (Bradley; Edmonds, 1993; Hedges *et al.*, 1994). As processes developed, roughed-out stone was moved from working sites at the mountain summits to lowland finishing sites. With intensification of production, more complex social and physical networks would have grown across the region. Trails through the landscape created by early pastoralists perhaps became more established with repeated use by quarry workers moving into the fells and returning with roughed-out stone, as part of the seasonal round. Bradley and Edmonds argue that there is reason to suppose that the earlier phases of stone working at Langdale were 'embedded into a wider cycle of summer land use' (Bradley; Edmonds, 1993: 141). Pearsall and Pennington also suggest that 'the men who worked the factories are likely to have pastured animals in forest clearings' (1973: 230). This concept of seasonal journeys to stone quarries is well-supported by ethnographic data (e.g. Burton, 1984; Petrequin;

Petrequin, 2011). It can certainly be applied to Langdale where expeditions to the mountain summits may only have been feasible during the summer months, with better visibility and extended daylight. Quarrying activities are likely to have been the focus of major social and ritual activities, attracting participants in both active and supporting roles, along the journey and during the production process. Might the Lakeland outcrop carvings have been made by groups making these regular journeys, following the long valleys which connected lowland settlements with central stone quarries?

Route-ways in a mountain landscape

The extraction, finishing and distribution of stone axe-heads demanded a network of communication and movement that has been studied in some detail both at a local level and in a wider context (Bradley; Edmonds, 1993; Claris; Quartermaine, 1989; Cummins, 1979; 1980; Edmonds, 1995; Manby, 1965; Davis; Quartermaine, 2007). The location of quarries and finishing sites, together with finds of roughed-out and polished axe-heads, and polissoirs have provided insight into the immediate geography

of these processes, with routes postulated between stone sources, population centres, and exchange nodes, such as stone circles. These routes are largely speculative, and the exact locations of prehistoric pathways are difficult to prove. Yet the exaggerated topography of the Cumbrian high fells region both restricts and facilitates progress, channelling the traveller along particular paths and creating natural corridors of movement. At the start of the Neolithic period only the very high slopes above 660 m were free of trees. Sediment samples suggest that the lake valleys were not cleared of woodland until the second millennium BC (Pearsall; Pennington, 1973: 226–236; Pennington, 1970), but it is likely that vegetation would have been

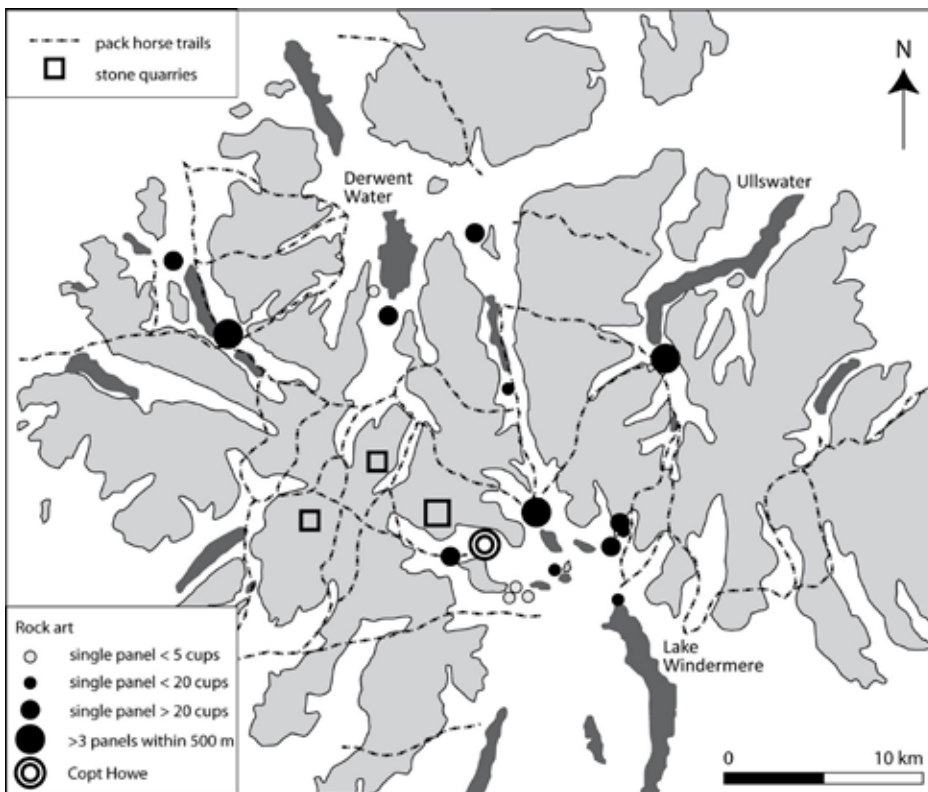


Fig. 3. The relationship between carved outcrops, valleys and mountain routes over passes between valleys. (After Hindle, 1984: fig. 5.8).



Fig. 4. Complex motifs on panel at Copt Howe (insert after Beckensall, 2002) with the Langdale Pikes behind (site of stone quarries).

less dense immediately along the shores of the lakes, some of which have a gravel beach, providing an easier and more direct route along the valley. This would have been particularly important if a successful season of quarrying resulted in a heavy pack of roughed-out axe-heads.

The location of a number of cup-marked outcrops on or just above the valley floor is strongly indicative of lowland movement; their position at the head or tail of the lake may also suggest that the lakes themselves served as highways for those with water transport. The population centres described above are all either riverine, lacustrine, or coastal/ estuarine locations, indicating that the exploitation of water-based resources, important during the Mesolithic, played a key role well into the Neolithic period. The communities occupying these settlements are likely to have used the coastal waters, lakes and larger rivers as part of their social networks (Callaghan; Scarre, 2009; Casson, 1994; Cummings; Fowler, 2004; Johnstone; McGrail, 1980; Sherratt, 1996). Indeed, dug-out canoes were in use on the tarns and lakes of the highland zone as well as on the lowland rivers and estuaries (McGrail, 1978); Cumbria has one of the oldest examples of such a craft C14 dated to the Middle Bronze Age (Ward, 1974).

Between the valleys

Although the glaciated valleys and lakes are the most accessible natural routes, convenient for travel directly to and from the central fells, they do not facilitate movement between valleys. Yet the close similarities between the carved outcrops across the region suggest that the communities frequenting the mountains had a shared understanding of the rock art they created, using the same rules to select and enhance suitable surfaces. This common practice may have arisen through the exchange of ideas during quarrying expeditions, but may also indicate a degree of travel between the valleys in addition to movement along them. Such journeys would require an intimate knowledge of the local terrain in order to avoid streams, bogs, or dangerous precipices. Experience accumulated over generations would be crucial. Today, hikers often rely on cairns, built up by fellow walkers, to guide them in poor weather; better yet, a well-trodden path, representing invaluable knowledge built by long experiment. If such trails were indeed established by early hunter-gatherers, pastoralists, or stone-workers, it is likely that given the limited options available, they would have been adopted by subsequent travellers navigating the fells. In the very restrictive landscape of the Cumbrian high fells, these paths may have been followed for

generations (Taylor, 1979: 153).

The earliest known roads in Cumbria are Roman, and made good use of natural passes between the mountains. A number of these routes were subsequently followed for many years by traders with pack-horses, who established an extensive network of trails through the central fells characterized by the distinctive pack-horse bridge (Hindle, 1984: fig. 5.8). If the distribution of the rock art panels is mapped against these routes, a strong correlation is revealed between key junctions in the network and the carved outcrops (figure 3). Many of the cup-marked panels in the valley bottom are located at nodes where several pack-horse routes converge; those set at slightly higher elevations lie within metres of these ancient tracks. The panels appear to be located both on the arterial routes of the main valleys, and also at key sites with regard to inter-valley communication.

Rock art and rough-outs

A number of researchers have linked rock art with social and ritual aspects of axe production in prehistoric Europe, for example in Norway (Bruen Olsen; Alasker, 1984; Mandt, 1995). Here it is argued that the discrete distribution patterns for axes from each quarry define distinct social territories, the rock art clusters marking sites of periodic gatherings during which collective activities, including the production of stone tools, took place. In Cumbria there is reason to make similar connections.

The valley of Great Langdale lies at the heart of the stone-axe production area, penetrating deep into the central fells and providing direct access to an exposure of the desirable Group VI tuff at the summit of the Langdale Pikes. Just 2 km from the foot of the Pikes, beside the Langdale Beck, is a group of enormous boulders. The vertical face of one large block is decorated with a striking array of complex motifs, including concentric rings, chevrons and parallel lines (figure 4), the only example in the Cumbrian high fells region to have an elaborate design. From this (and only this) position in the valley the summer solstice sunset is spectacular, with the sun appearing to roll down the side of the highest of the five Langdale Pikes. The combination of complex, passage tomb-style motifs on the vertical face of this monumental piece of rock, together with the solstitial connection, makes this a significant site

which was surely known to groups passing along the valley to and from the mountains. It was perhaps also related to rituals associated with the dangerous practice of extracting stone from the precipitous slopes around the mountain summit (for a more detailed discussion see Sharpe, 2007; 2008; Sharpe; Watson, 2010).

Discussion: when, why and to whom?

The association of the carvings with seasonal route-ways implies they were made by partially mobile communities, the stone-axe producing people who lived around the coastal areas of Cumbria during the Neolithic period in the third millennium BC. These groups were beginning to mark significant sites and create more permanent places with which they identified. The cup-marked outcrops may thus represent an early stage in the development of monuments, with rock art providing a means to enculture the natural landscape (Bradley, 1998; Scarre, 2002; Sherratt, 1990; Tilley, 1996). The marking of these natural rock outcrops may have begun the process of transformation of natural spaces into constructed places.

The distinctive situations selected and striking resemblance in style across the Lakeland panels appear to reflect common practices and shared ideologies, suggesting that the cup-marked locations held a similar significance for the various communities that created them. In selecting outcrops situated close to the head or tail of a lake, Neolithic cupule-makers may have been assisting with the practicalities of movement along the valleys, marking places where travellers might break their journey and make temporary camp. The location of the panels on nodes at the foot of natural routes over passes between valleys also suggests that movement around the fells was not restricted to the more obvious corridors radiating from the fells, and perhaps indicates a strong social network between different groups visiting the central fells from their peripheral lowland homes. The carved outcrops possibly marked places where groups congregated and either crossed paths or continued their journeys together. As places where people converged, arriving either on foot or by water, along the valley or from a mountain pass, setting out or heading home, these locations would have been important settings for the exchange of news of activities at the quarrying sites:

successes and disasters, new techniques and social interactions.

Expeditions into the mountains would have represented a step away from familiar, safe surroundings and as such may have been extremely arduous, requiring knowledge of routes and the location of resources, as well as the technical skills of quarrying. The cup-marked panels may have played a role in the successful outcome of these journeys, having a ritual and/or spiritual role, protecting or sanctifying locations or activities by ensuring the goodwill of local spirits or enlisting the help of ancestors. For people travelling on the lakes, the outcrops may also have marked a transition from the spiritually-loaded element of the water to the more earth-fast part of their journey, and vice versa. The watery, marshy locations would have provided rich resources, but are also suggestive of water-related ritual activities (O'Sullivan; Sheehan, 1993). Certainly, the elaborate panel at Copt Howe which connects the solstitial sunset with the stone quarries would suggest an element of annual activity, perhaps marking the optimum time for securing stone from the high peaks, and creating a threshold controlling passage into these special mountains.

Ultimately, the specific motivations of the people who carved the cupules, the responses of those who experienced them and the activities associated with these sites are perhaps beyond our reach, certainly without more focused excavation. However, by contextualizing the rock art within the known archaeological framework we can perhaps begin to close the gap in our understanding. At the very least, it is hoped that this potentially significant new component of the prehistoric landscape in central Cumbria will in future be fully integrated into analyses of Cumbrian prehistory, and ultimately into wider studies of the Neolithic in northern Britain.

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References

- Beckensall, S.
2002 *Prehistoric rock art in Cumbria*, Stroud (Tempus).
- Bradley, R.
1998 *The significance of monuments. On the shaping of human experience in Neolithic and Bronze Age Europe*, London (Routledge).
- Bradley, R.; Edmonds, M.R.
1993 *Interpreting the axe trade: production and exchange in Neolithic Britain*, Cambridge (Cambridge University Press).
- Brown, P.; Brown, B.
2008 *Prehistoric rock art in the northern dales*, Stroud (Tempus).
- Bruen Olsen, A.; Alasker, S.
1984 Greenstone and diabase utilisation in the Stone Age of Western Norway, *Norwegian Archaeological Review* 17: 71–103.
- Burton, J.
1984 Quarrying in a tribal society, *World Archaeology* 162: 234–47.
- Callaghan, R.; Scarre, C.
2009 Simulating the western seaways, *Oxford Journal of Archaeology* 28: 357–72.
- Casson, L.
1994 *Ships and seafaring in ancient times*, London (British Museum Press).
- Claris, P.; Quartermaine, J.
1989 The Neolithic quarries and axe factory sites of Great Langdale and Scafell Pike: a new field survey, *Proceedings of the Prehistoric Society* 55: 1–25.
- Cummings, V.; Fowler, C. (eds.)
2004 *The Neolithic of the Irish Sea: materiality and traditions of practice*, Oxford (Oxbow).
- Cummins, W.A.
1979 Neolithic stone axes: distribution and trade in England and Wales, in Clough, T.H.M.; Cummins, W.A. (eds.), *Stone axe studies*, Vol.1, Research Report No. 23, London (Council for British Archaeology), pp. 5–12.
- Cummins, W.

- 1980 Stone axes as a guide to Neolithic communications and boundaries in England and Wales, *Proceedings of the Prehistoric Society* 46: 45–56. Davis, V.; Quartermaine, J.
- 2007 Widening the horizons. Recent discoveries of axe factories in the Lakeland fells, in Cherry, P. (ed.), *Studies in Northern Prehistory*, Cumberland and Westmorland Antiquarian and Archaeological Society, Extra Series Vol. 33. Kendal (Titus Wilson & Son). Edmonds, M.R.
- 1995 *Stone tools and society: working stone in Neolithic and Bronze Age Britain*, London (B.T. Batsford). Fairen-Jimenez, S.
- 2007 British Neolithic rock art in its landscape, *Journal of Field Archaeology* 32 (3): 283–95. Hedges, R.E.M.; Housley, R.A.; Bronk Ramsey, C.; Van Klinken, G.J.
- 1984 Radiocarbon dates from the Oxford AMS System: Archaeometry Datelist 18, *Archaeometry* 36 (2): 337–74. Hindle, B.P.
- 1984 *Roads and trackways of the Lake District*, Ashbourne (Moorland Publishing). Johnstone, P.; McGrail, S.
- 1980 *The seacraft of prehistory*, London (Routledge and Kegan Paul). Manby, T.
- 1965 The distribution of rough-out ‘Cumbrian’ and related axes of Lake District origin in Northern England, *Transactions of the Cumberland and Westmorland Antiquarian and Archaeological Society*, Second Series 65: 1–37. Mandt, G.
- 1995 Alternative analogies in rock art interpretation: the West Norwegian case, in Helskog, K; Olsen, B. (eds.), *Perceiving rock art: social and political perspectives*, Oslo, Novus (The Institute for Comparative Research in Human Culture), pp. 263–91. McGrail, S.
- 1978 *Logboats of England and Wales*, British Archaeological Reports British Series 51: Oxford. Natural England
- 2009 National Character Areas, viewed 17 May 2010, <<http://www.naturalengland.org.uk/ourwork/landscape/englands/character/areas/default.aspx>> O’Sullivan, A.; Sheehan, J.
- 1993 Prospection and outlook. Aspects of rock art on the Iveragh Peninsula, Co. Kerry, in Shee Twohig, E.; Ronayne, M. (eds.), *Past perceptions: the prehistoric archaeology of South-West Ireland*, Cork (University of Cork Press), pp. 75–84. Pearsall, W.H.; Pennington, W.
- 1973 *The Lake District: a landscape history*, London (Collins). Pennington, W.
- 1970 Vegetational history in the North West of England: a regional synthesis, in Walker, D.; West, R. (eds.) *Studies in the Vegetational History of the British Isles*, Cambridge (Cambridge University Press), pp. 41–80. Pennington, W.
- 1975 The effect of Neolithic man on the environments of north-west England: the use of absolute pollen diagrams, in Evans, J.G.; Limbrey, S.; Cleere, H. (eds.), *The effect of man on the landscape: the highland zone*, CBA Research Report No. 11. London. Petrequin, P.; Petrequin, A.-M.
- 2011 The twentieth-century polished stone axeheads of New Guinea: why study them?, in Davis, V.; Edmonds, S. (eds.), *Stone axe studies III*, Oxford (Oxbow), pp. 333–49. Plint, R.
- 1962 Stone axe factory sites in the Cumbrian Fells, *Transactions of the Cumberland and Westmorland Antiquarian and Archaeological Society*, Second Series 62: 1–26. Davis, V.; Quartermaine, J.
- 2007 Widening the horizons, *Cumberland and Westmorland Antiquarian and Archaeological Society*, Extra Series, 33, pp.141–52. Scarre, C.
- 2002 Epilogue: colour and materiality in prehistoric society, in Jones, A.; MacGregor, G. (eds.), *Colouring the past: the significance of colour in archaeological research*, Oxford and New York (Berg), pp. 227–42. Sharpe, K.E.
- 2007 *Motifs, monuments and mountains: prehistoric rock art in the Cumbrian landscape*, Unpublished PhD thesis, University of Durham.
- 2008 Rock art and rough-outs. Exploring the sacred and social dimensions of prehistoric carvings at Copt Howe, Cumbria, in Mazel, A.; Nash, G.; Waddington, C. (eds.), *Art as metaphor: the prehistoric rock-art of Britain*, Oxford (Archaeopress), pp. 151–73.

2012 Reading between the grooves. Regional variations in the style and deployment of 'cup and ring' marked stones across Britain and Ireland, in Cochrane, A.; Jones, A. (eds.), *Visualising the Neolithic: abstraction, figuration, performance, representation*, Oxford (Oxbow Books), pp. 47–88.

Sharpe, K.; Watson, A.

2010 Moving Images: Interpreting the Copt Howe Petroglyphs, in Sharpe, K.; Barnett, T. (eds.), *Carving a future for British rock art: new directions for research, management and presentation*, Oxford (Oxbow Books), pp. 57–64.

Sherratt, A.

1990 The genesis of megaliths: monumentality, ethnicity and social complexity in Neolithic north-west Europe, *World Archaeology* 22: 147–67.

Sherratt, A.

1996 Why Wessex? The Avon route and river transport in later British prehistory, *Oxford Journal of Archaeology* 15: 211–27.

Style, P.

2009 *Polished axes, petroglyphs and pathways. A study of the mobility of Neolithic people in Cumbria*, Unpublished undergraduate thesis, University of Central Lancashire.

2011 Recent rock art finds from the Cumbrian Mountains, *Newsletter of the Cumberland and Westmorland Antiquarian and Archaeology Society* 16: 5.

Taylor, C.

1979 *Roads and tracks of Britain*, London (J.M. Dent).

Tilley, C.

1996 The power of rocks: topography and monument construction on Bodmin Moor, *World Archaeology* 28: 161–76.

Ward, J.E.

1974 Wooden objects uncovered at Branthwaite, Workington, in 1956 and 1971, *Transactions of the Cumberland and Westmorland Antiquarian and Archaeological Society*, Second Series 74: 18–28.

Watson, A.

1995 Investigating the distribution of Group VI debitage in the Central Lake District, *Proceedings of the Prehistoric Society* 61: 461–62.

TASSILI PAINTINGS: ANCIENT ROOTS OF CURRENT AFRICAN BELIEFS?

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Abstract

The Central Sahara is a huge gallery of prehistoric and historic rock art. The earliest paintings, called round heads for the way in which the human face is represented, belong to groups of dark-skinned populations living in the Algerian Tassili and neighbouring mountains. During a humid period starting at 10,000 BP these hunter-gatherers produced several thousand images which are surprisingly similar to some of modern African elements.

Keywords: Sahara, Tassili, round heads, hunter-gatherers, rituals, ethnography

Round head paintings

Before 10,000 BP the Central Sahara experienced different regional climates. While high altitude regions had significant rainfall causing the creation of lakes, they were surrounded by extremely dry lowlands (Maley, 2004). The onset of a wet climate in the lowlands in the 10th millennium BP, which corresponded with the beginning of the Epipalaeolithic phase, represented an important change in the Central Saharan environment. Thanks to the possibility of



Fig. 1. A stone city on the Tassili Plateau.