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## The Uffington White Horse geoglyph as sun-horse

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### Introduction

The Uffington white horse is Europe's only confirmed prehistoric hill-figure or geoglyph, and among the world's oldest. Created in the later second or first millennium BC, it is also unusual in being a figurative representation within a surprisingly resilient tradition of non-representational imagery within prehistoric Britain (Figure 1). It is quite distinct from the only other form of prehistoric landscape art known in the British Isles, the abstract motifs that make up rock art panels within upland regions (Bradley 1997). A widely consumed image within popular culture, the white horse features on the album covers of XTC and Nirvana, and in fictional literature by Rosemary Sutcliffe, A.J. Hartley and Terry Pratchett. Its most famous literary incarnation is in Thomas Hughes' *The Scouring of the White Horse* (Hughes 1859), a semi-fictional account of the last great festival linked to the 'scouring' or cleaning of the horse held in 1857. While popular culture has found no difficulty in accommodating explanations of its meaning and role, the same cannot be said of archaeology. The most recent detailed evaluation of the geoglyph and its date concludes that "nobody can be certain now why the monument was originally constructed" (Barclay *et al.* 2003: 245). It may be its apparent uniqueness that creates problems (cf. Jones 2012). Unlike the better known palaeo-geoglyphs from the Americas – the Nazca lines and the Late Woodland effigy mounds, for example – the Uffington figure lacks obvious comparanda and context, and so remains a rather awkward oddity. This explains its marginalisation in academic discourse.

By engaging with its landscape setting, and by locating the white horse within current knowledge of European later prehistoric cosmologies, it is argued here that the figure served as a sun-horse image: a device that effected the diurnal passage of the sun through the sky. Further, by taking an approach that recognises the multi-temporality of landscape (Lucas 2004; Gosden & Lock 1998) – that is the on-going co-presence of earlier features within a landscape – such an interpretation offers context for

envisaging other modified and constructed features of the Uffington environs as appropriated components of a monument complex centred on the horse.

### **The Uffington geoglyph: its setting and its date**

The white horse geoglyph is situated on the northern escarpment of the Berkshire Downs, in west Oxfordshire. The figure stretches over c.110m, its body following the upper edge of a steep re-entrant valley. Its form is elongated and abstracted, with a curious beaked mouth and over-long tail. Geophysical survey and excavation in 1990 and 1994 by the then English Heritage and Oxford Archaeological Unit demonstrated that the morphology and the position of the horse have altered little, though its inclination relative to the hillslope has decreased by around 10 degrees (Miles, Palmer *et al.* 2003: 77), suggesting it was formerly rather more visible from a close vantage point. The figure was originally formed through down-cutting and exposure of the white Upper Chalk bedrock. Subsequently, it was maintained through the successive addition of layers of puddled chalk (Miles, Palmer *et al.* 2003).

Other monuments lie within the immediate vicinity of the horse (Figure 2). Uffington hillfort lies 200m upslope to the south-southwest, while between this and the horse are a Bronze Age round barrow and a possible Neolithic long mound reused in the late Roman period as an inhumation cemetery (Barclay, Booth *et al.* 2003). Under 200m to the north, on the downslope of the escarpment, is the mound of Dragon Hill. The latter is likely a natural knoll that has been substantially modified and provided with a terraced summit. These monuments sit within a larger landscape rich in later prehistoric archaeology: within a radius of 5km are the later Bronze Age–Iron Age hillforts of Rams Hill, Hardwell Camp and Alfred’s Castle (Figure 3); extensive traces of fieldsystems, linear ditches and settlement areas; the earlier barrow cemetery at Lambourn Seven Barrows; and the Neolithic chambered tomb of Wayland’s Smithy (Bradley & Ellison 1975; Whittle 1991; Bowden *et al.* 1993; Gosden & Lock 2013).

The earliest documentary reference to the geoglyph dates to the late eleventh century AD (Marples 1949: 53–4). Full details of its documented history are given by Cromarty *et al.* (2003: 15–27). Direct evidence of its prehistoric origin is provided by Optically Stimulated Luminescence (OSL) dates on colluvium samples pre-dating and

interleaved between early episodes of redefinition of the horse. These provide a range of 1380-550 BC (68% confidence) for the construction of the first horse (Rees-Jones & Tite 2003), potentially placing it within a horizon that extends from the middle Bronze Age to the latter part of the early Iron Age. That horizon is an especially busy one in this landscape, taking in the highly elaborate inner enclosure at Rams Hill (Bradley & Ellison 1975), dated to the thirteenth to tenth centuries BC (Needham & Ambers 1994), major linear ditches, the construction of the hillforts at Uffington and Alfred's Castle during the eighth to sixth centuries BC (Lock *et al.* 2003; Gosden & Lock 2013), and the eighth-century BC open settlement at Tower Hill (Miles, Campbell *et al.* 2003).

### **Reading the horse**

To date, a better chronology has not facilitated a new interpretation of the white horse. In the most recent detailed assessment of the geoglyph an established view of the horse as a symbol is retained, potentially “signalling the presence and wealth of the inhabitants of the ridge top, or... mark[ing] the presence of a site of special significance to the wider population” (Barclay, Cromarty *et al.* 2003: 245). This goes little further than earlier interpretations of the horse as variously a landmark, a commemorative image, the “emblem or badge of some chieftom or tribe”, or as totemic, “embodying the identity of the white-horse people” (Marples 1949: 49; Crawford 1929; Piggott 1931). Without immediate analogy, and as an apparently representational and unique thing, to conceive of the horse as sign for something – a place, a people, an event or social prowess – has an obvious economy. Suggestions that the geoglyph held religious significance, “as a kind of cult object” (Piggott 1931; Marples 1949: 50), have met with increasingly unpopularity since the mid-twentieth century.

A key problem with the ‘horse as symbol’ interpretation is its failure to account for unusual aspects of the geoglyph’s siting. While its general landscape position is commanding, it is not hugely visible, negating its efficiency as an image to be seen and ‘read’ along and off the chalk. At this point the east-west escarpment of the Berkshire Downs pushes north and rises to more than 50m above the general scarp level, reaching 261m OD. The complex, deep and steep-sided dry valley re-entrant known as the Manger, at the head of which the horse is sited, also makes this a

striking landform. Barclay, Cromarty *et al.* note the special configuration of the landscape here: the ‘juxtaposition of a relatively high hill with a very steep sided valley below, in an otherwise gently undulating landscape’ (2003: 246). Seen from the north, the combined effect is to visibly enhance this section of the Downs. From the ridge above the horse commanding views are offered north across the Vale of the White Horse and the Corallian Ridge to the southern edge of the Cotswold hills.

Such a location offers the potential for the geoglyph to be highly visible across a wide arc. However, the positioning of the horse on the north-west facing slope of the Manger has the effect of blocking views to it from the east (Figure 4). When seen from the north, the views are straight along the back of the horse, from its tail to head, massively foreshortening the image. The best ground-based perspectives are achieved from Dragon Hill, and from the north-west, close to the springheads at Woolstone Wells, looking down the axis of the Manger (Figure 5). Even from these locations the position of the horse on a slope of 30-40 degrees again foreshortens the image. Viewshed analysis shows there are multiple areas on the same section of ridge which could afford better visibility (Egginton 2011). As it stands, the horse is best seen from the air (a point not lost on early aerial observers: Hauser 2007: 153)(Figure 6).

Two other aspects of the horse’s design need to be taken into consideration at this point. The first is that it is laid out so that its body is upwardly tilted. The rear top of the body is situated at c.235m OD, the front top of the body at c.240m OD; effectively mimicking the angle of slope of the ridge. This affords it a position that locates the axis of the body parallel to the brow of the ridge when seen from the area of Woolstone Wells. Second, the image adopts a very clear running posture, with head down, tail out and legs in wide gait. Its northeast-southwest alignment, with head to the south-west gives the impression of the figure following a broadly east-west route. Taken together, these observations imply that:

- maximising visibility was not of primary concern in the creation of the horse, and by implication, its role as a landmark or group symbol must be questioned;

- while not exploiting a position of high visibility, the setting out of the horse paid careful respect to the details of local topography;
- the design of the horse implies movement;
- when viewed from Dragon Hill and the mouth of the Manger near Woolstone Wells, the horse is afforded the impression of running up along the brow of the ridge, in a westerly direction. If tracked back from the Woolstone Wells vantage, its 'point of origin' would be the flat-topped knoll of Dragon Hill.

A final observation is that the aspect of the figure – moving upwards and to the west – follows the course of the sun in its east-west journey across the southern skies as viewed in the northern hemisphere, and especially during its short passage around midwinter. When observed from Dragon Hill at midwinter, a distinctive effect is created, whereby the sun rises immediately behind the horse and appears to roll just above its body, staying low to the horizon due to the truncation of the lower part of its arc by the high rise of the immediate topography (Figure 7).

### **The image as sun-horse**

The form and setting of the geoglyph are consistent with it being a sun-horse: an effigy that facilitated the diurnal movement of the sun through the sky. It is therefore better conceived as indexical, in Peircean terms, than a sign, since it embodies a causal connection between image and the referenced entity (Peirce 1998). To move interpretation away from its current conceptualisation as a static symbol also opens space for conceiving of the geoglyph as periodically animate at point of conjunction of image and moving sun. This position recognises the relational engagement of the image to confluences of time, landscape, cosmic forces and human strategy and history – 'bundling' in Pauketat's terms (Pauketat 2012). Its relationship with other features in the landscape, both topographic and constructed also becomes an issue, and one that will be explored further later.

As a sun-horse, immediate analogy can be drawn with imagery on Scandinavian metalwork and rock art of the mid-second to late first millennia BC (Kaul 1998; Bradley 2006), most notably the iconic Trundholm 'Chariot of the Sun' from NW Zealand dating to Montelius period 2 (c.1500-1300 BC: Muller 1903; Kaul 2010)

(Figure 8). The notion of sun as divine, pulled across the sky by a horse or horse-drawn chariot during the day, and transported through the underworld at night by boat or chariot, is a recurrent feature of Indo-European mytho-cosmology (Kristiansen & Larsson 2005; West 2007: 201–9).. Similar themes recur within the Old Indian Vedic *Rigveda*, and Greek and Baltic mythology, including the role of the divine twin-brother Aśvins/Ashvins/Ašvieniai, saviour or protector figures that travel with the sun and are identified with white horses (Kristiansen & Larsson 2005: 297; West 2007: 186–91; Sykes 2014: 82). Based upon linguistic/philological evidence, Sykes (2014: 83–4) has recently suggested that the movement from India-Iran to northern and western Europe of this package of mythology and attendant ritual practices went in tandem with the diffusion of domestic horses, as components of a ‘common horse culture’. This would fit well with current knowledge of a date of introduction of domesticated horse into northern Europe, which, while still equivocal, is likely to have occurred at some point in the first or second quarter of the second millennium BC (Bendrey *et al.* 2013). While such cosmological schemes are well represented within the corpus of Nordic later prehistoric imagery, the same is not true within the British Isles, perhaps because of the rarity of representational imagery here. Of course, transmission may have occurred through other, perishable media – textiles and tattoos, for example.

### **The Uffington complex**

The Uffington horse geoglyph is set apart from the sun-horse imagery found on the portable material culture of the Nordic Bronze Age by its sheer scale – it was created to perform in a landscape. Here it is argued that it was conceived as the principal element of a complex that drew together natural and artificially created features of pre-existing significance. An archaeologically-packed landscape, there is no shortage of significant landmarks at Uffington (Figures 2 and 3). These can be described as points along the sun/horse’s journey, incorporating portals between sky/day and underworld/night domains. Turning first to natural topographical affordances, one can note the arena created by the re-entrant of The Manger, which offers a striking liminal space between Vale below and the chalk ridgeway over which the horse traverses. The spring complex at Woolstone Wells affords both the best vantage point and acts as a place of intersection between surface (‘land’) and underworld, from which water flows. Located immediately down ridge-slope from the geoglyph, Dragon Hill could

readily be envisaged as another point of emergence – a kind of ‘mound of origin’ (Figure 9).

Following the upward and westerly arc of both horse and sun takes in other features, this time humanly-created, albeit of obvious antiquity and mytho-historic status by the time the geoglyph came into being (Gosden & Lock 1998). In journey order, these comprise a Bronze Age round barrow, a small long mound, both within 150m of the horse, and a Bronze Age ring-ditch 550m to the south-west. Viewed from Dragon Hill and Woolstone Wells around midwinter, the sun ends its journey in the direction of the chambered Neolithic long barrow of Wayland’s Smithy, 2.5km to the south-west. Excavation in the 1960s revealed late Bronze Age-early Iron Age disturbance to the mound, pottery and two bronze castings retaining clay cores that make up a horse harness strap-fastening of Ewart Park phase (eighth century BC)(Whittle 1991: 87). This is an unusual deposit, and telling of an interest in the tomb potentially within the time of the geoglyph. The megalithic component of the second phase barrow was visible when the disturbance to the mound and deposition of the castings took place; though by that stage any sense of the monument’s original purpose, or of the agents responsible for its creation, would have been radically reconfigured. It is suggested here that as an artificial stone ‘cave’ it was conceived as another portal into the underworld, and the location where the sun-horse began the nocturnal stage of its journey. As its name implies, Anglo-Saxon and later folklore links the monument with Wayland, the smith of the gods (Grinsell 1939: 16–20). A connecting thread is also provided by the east-west route of the Ridgeway, potentially serving as a processional way. For this part of its length at least, a pre-Iron Age date can be advanced (Gosden & Lock 2003).

Because of the imprecision that currently exists in the date of creation of the geoglyph, it is rather more difficult to establish connections between the figure and the Uffington Castle, Rams Hill and Hardwell Camp enclosures. At the former two sites there is episodic, short-duration, activity that is hardly consistent with sustained occupation. There are good grounds for arguing that both served as locales for periodic gathering linked to observances at, and maintenance of, the horse (Lock *et al.* 2003: 124). The first phase of enclosure at Rams Hill dates to the thirteenth to tenth centuries BC (Needham & Ambers 1994). It is unusual in several respects, not least



the complexity in its periodic circuit redefinition, and the presence of multiple entrances. Faunal remains show a notable emphasis on cattle, and meaty elements (Bradley & Ellison 1975: 119, 206–15). Limited as it is, the evidence would best fit a role that involved gathering, short-term occupation and consumption. Its potential ceremonial role is enhanced by its situation at the head of a valley that leads down to the major early Bronze Age barrow cemetery at Lambourn, 3km to the SE (Bradley & Ellison 1975: 219). The first phase of Uffington Castle comes later, in the eight to sixth centuries BC. Primary activity in the interior is short-lived and left only ephemeral trace. A small amount of fourth century BC pottery is perhaps linked to reinstatement of the ramparts during this time (Lock *et al.* 2003: 123). Lock *et al.* (2003: 124) note: “it could have been a sacred place visited, perhaps, seasonally for social activities based on ceremony and ritual”. In an inversion of a sequence common among multi-entrance Wessex hillforts, the eastern entrance is blocked during the middle Iron Age and that to the west – a cosmologically circumscribed orientation (Parker Pearson 1996) – is maintained.

### **Maintaining the horse**

That the Uffington geoglyph remains a visible feature with fidelity to its original form is highly remarkable, and entirely due to regular maintenance or ‘scouring’ (Barclay, Cromarty *et al.* 2003: 245). Historical records from the eighteenth and early nineteenth century document scouring events at intervals of between four and 21 years; and ‘the conclusion seems inescapable that the horse has been scoured at least once every generation for almost three millennia, if not more’ (Schwyzer 1999: 42). Against this repetition of practice – an almost institutionalised process of incorporated memory-work (Connerton 1989) – is the loss at some point in its history of its original role as a sun-horse. Certainly since its first documentary reference in the Abingdon cartularies and a list of the *Wonders of Britain* of the later eleventh century AD (Cromarty *et al.* 2003: 16), it has been the “site of shifting and contested meanings” (Schwyzer 1999: 42).

Its post-construction history prior to historical record requires further consideration. Given the longevity of sun-horse mytho-cosmology in the Nordic Bronze and Iron Ages (Kaul 2010: 535), there might be grounds to assume the Uffington sun-horse identification was retained over a coeval period, if not longer. Waddell (2010, 2012)

has argued that solar boat imagery is a recurrent feature of the decorative schema found on Iron Age and Roman-period La Tène metalwork, for example. Horse imagery on late Iron Age Gallo-Belgic and British gold and silver coinage offers another strand of evidence (Figure 8). Nash Briggs (2009) makes a convincing case for solar horse imagery on first-century BC gold staters, while Creighton has argued that the horse/man iconography common on such coinage enshrined the concept of sacral kingship, that sacred authority being validated through ritualised unions of horse and ruler (Creighton 2000: 22–6). The origins of the latter are to be found within the same Indo-European tradition of the Aśvins/Ashvins/Ašvieniai that delineates the solar horse mythology. Solar and lunar symbols accompany horse designs on a number of Iron Age coin issues from the south and west of England, suggesting they are sun-horse imagery.

Evidence for late Iron Age activity at Uffington is largely lacking, though is present at Rams Hill (Bradley & Ellison 1975: 69). During the early first millennium AD activity is more clearly registered and is again indicative of gathering and special practices, set within a background of increased agricultural intensification in this landscape (Barclay, Cromarty *et al.* 2003: 262–3). The long mound to the south-west of the horse became the focus for a major inhumation and cremation cemetery during the fourth century AD, while Anglo-Saxon burials were inserted in the adjacent round barrow (Barclay, Booth *et al.* 2003: 38–47). Sustained late Roman activity within the Uffington hillfort, perhaps overlapping with the currency of the long mound cemetery, involved the deposition of large amounts of artefactual material, including many coins (Lock *et al.* 2003). There is little structural evidence accompanying this, giving the activity something of a ‘fair’ or ‘festival’-like character. The creation of rectangular enclosures adjacent to the earlier Iron Age rampart circuits at both Uffington Castle and Rams Hill during this period could signal strategies to create more clearly defined sacred spaces. That on the western side of the Uffington hillfort enclosed an earlier round barrow, again associated with Roman or early Anglo-Saxon burial (Gosden & Lock 2003). A coin hoard, figurine and burials from the ditch of the enclosure at Rams Hill supports an interpretation of this as the *temenos* of a hilltop shrine (Bradley & Ellison 1975: 71). From the fourth century, the picture is one of periodic gathering, burial and small-scale votive offering focussed on the ridgetop and the environs of the geoglyph, perhaps with more formalised religious activity

contained within specially constructed shrine enclosures. In stark contrast, evidence for Romano-British activity is absent from Segsbury Camp, 9km to the east (Lock *et al.* 2005). Quite how the horse was understood and engaged with at this time remains uncertain, but it continued to exert a dominant agency.

### **Conclusion**

The Uffington geoglyph is a truly remarkable monument, but one which has not been easy to accommodate within accounts of later prehistory. It is for this reason that it has become marginalised. Its identification as a sun-horse provides context, and highlights the potential role of the Uffington complex as a preeminent ceremonial focus in later prehistoric Britain. The mytho-cosmological knowledge that was articulated through the creation and maintenance of the geoglyph was by no means original to this region, possessing a broad Indo-European currency and perhaps being transmitted via long-distance networks and alongside the introduction of domesticated horses (Sykes 2014), but it was worked out locally. Key to this translation may have been the physical and history affordances offered by this section of the Berkshire Downs (Gosden & Lock 1998). It is a visually dramatic section of chalk escarpment, and one that may already have been an important place. The chalk downs are the setting for significant monuments of Neolithic and early Bronze Age date, including Wayland's Smithy and the major round barrow cemetery at Lambourn Seven Barrows to the south. Its more general location within southern Britain is not without significance, as a node where major topographic entities and routeways intersect. The geoglyph sits on the northern edge of the Wessex chalk, overlooking the Thames Valley, and major routes both east and west along this, and to the NW and the Cotswolds and Severn Valley beyond.

Finally, the regular and repetitive maintenance of the horse over perhaps 3000 or more years – its care – is difficult to match elsewhere in the northern hemisphere and deserves more acknowledgement. That the geoglyph is still with us, occupying a twenty-first-century landscape, is due to more than dumb repetition or un-thought tradition. It has survived because it could be constantly reincorporated within shifting values and religious beliefs, even though the changes in those were often wholesale and dramatic (e.g. the introduction of Christianity and the Reformation). That trail of re-inscription requires further investigation.

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### Figure captions

- Figure 1. The Uffington geoglyph. Broken lines indicate geophysical anomalies (after Miles *et al.* 2003).
- Figure 2. The White Horse and adjacent sites (after Barclay, Booth *et al.* 2003).
- Figure 3. Major monuments within immediate region.
- Figure 4. View of geoglyph looking north showing position on hillslope.
- Figure 5. Views from the head and tail of the geoglyph towards (left) The Manger and Woolstone Wells and (right) Dragon Hill.
- Figure 6. The Uffington geoglyph and hillfort from the north. Major George Allen Air Archive, Image number AA0239 (Negative number 1240), 31/07/1933. © Ashmolean Museum, University of Oxford.



Figure 7. The sun-roll effect as observed from Dragon Hill on 23rd December 2015. The geoglyph has been digitally enhanced to afford visibility.

Figure 8. Uffington and related sun-horse and horse imagery from (left) middle-late Bronze Age Denmark and (right) late Iron Age – early Romano-British southern England. Not to scale.

Figure 9. Dragon Hill and the geoglyph from the west. The geoglyph has been digitally enhanced to afford visibility.

For Peer Review



View of geoglyph looking north showing position on hillslope.  
1237x848mm (72 x 72 DPI)

Review





Dragon Hill

Geoglyph

Review